#### PAPER - 5: ADVANCED ACCOUNTING

## PART – I: ANNOUNCEMENTS STATING APPLICABILITY & NON-APPLICABILITY FOR MAY, 2016 EXAMINATION

#### A. Applicable for May, 2016 Examination

#### (i) Companies Act, 2013 and Legislative Amendments

The relevant notified Sections of the Companies Act, 2013 and legislative amendments including relevant Notifications / Circulars / Rules / Guidelines issued by Regulating Authority up to 31st October, 2015 will be applicable for May, 2016 Examination

#### (ii) Maintenance of Statutory Liquidity Ratio (SLR)

As per Notification No. DBOD No. Ret. BC.70/12.02.001/2014-15 dated February 3, 2015, the SLR of Scheduled Commercial Banks, Local Area Banks and Regional Rural Banks should not be less than 21.5% of its demand and time liabilities with effect from the fortnight beginning February 7, 2015.

#### (iii) Maintenance of Cash Reserve Ratio (CRR)

Reserve Bank of India has decided to reduce the Cash Reserve Ratio (CRR) of Scheduled Commercial Banks by 25 basis points from 4.25 per cent to **4.00 per cent of their Net Demand and Time Liabilities (NDTL)** with effect from the fortnight beginning February 09, 2013 vide circular DBOD.No.Ret.BC.76/12.01.001/2012-13 dated January 29, 2013. The Local Area Banks shall also maintain CRR at 3.00 per cent of its net demand and time liabilities up to February 08, 2013 and 4.00 per cent of its net demand and time liabilities from the fortnight beginning from February 09, 2013.

#### (iv) SLR Holdings under Held to Maturity Category

In order to further develop the government securities market and enhance liquidity, it has been decided to bring down the ceiling on SLR securities under the HTM category from 24 per cent of NDTL to 22 per cent\* in a graduated manner. Accordingly it is advised that: Banks are permitted to exceed the limit of 25 per cent of total investments under HTM category provided:

- a. the excess comprises only of SLR securities, and
- b. the total SLR securities held in the HTM category is not more than 23.50 per cent with effect from January 10, 2015, 23.0 per cent with effect from April 4, 2015, 22.5 per cent with effect from July 11, 2015 and 22.0 per cent with effect from September 19, 2015, of their DTL as on the last Friday of the second preceding fortnight.

<sup>\*</sup> As per DBOD.No.BP.BC.42/21.04.141/2014-15 dated 7 October, 2014.

#### (v) Revision in date of commencement of commercial operations

Circular no. DBOD.No.BP.BC.33/21.04.048/2014-15 dated 14 August, 2014, states that: revisions of the date of commencement of commercial operations (DCCO) and consequential shift in repayment schedule for equal or shorter duration (including the start date and end date of revised repayment schedule) will not be treated as restructuring provided that:

- (a) The revised DCCO falls within the period of two years and one year from the original DCCO stipulated at the time of financial closure for infrastructure projects and non-infrastructure projects respectively; and
- (b) All other terms and conditions of the loan remain unchanged.

# (vi) Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014

SEBI vide Circular No. LAD-NRO/GN/2014-15/16/1729 dated 28<sup>th</sup> October, 2014 has formulated the SEBI (Share Based Employee Benefits) Regulations, 2014 which replaces the SEBI (Employees Stock Option Plan) Guidelines, 1999. The said Regulations deal with various provisions relating to employee stock option schemes, employee stock purchase schemes, stock appreciation rights schemes, general employee benefits schemes and retirement benefit schemes formulated by listed companies. The regulations deal with definition of eligible employees, formation of compensation committee, shareholders approvals variation of terms of issue, listing, compliances etc. For the complete text of this notification please refer to the link: http://www.sebi.gov.in/cms/sebi\_data/attachdocs/1414568485252.pdf

#### B. Not applicable for May, 2016 examination

#### (i) Ind ASs issued by the Ministry of Corporate Affairs

Ind ASs are not applicable for the students appearing in May, 2016 Examination.

#### (ii) Financial Reporting of Electricity Companies

The topic on "Financial Statements of Electricity Companies" has been excluded from the syllabus w.e.f. November, 2015 Examination.

# PART – II : QUESTIONS AND ANSWERS QUESTIONS

#### **Partnership Accounts**

#### Dissolution of Partnership firm

1. The firm of M/S Omega was dissolved on 31.3.2015, at which date its Balance Sheet stood as follows:

Liabilities	₹	Assets	₹
Creditors	2,00,000	Fixed Assets	45,00,000
Bank Loan	5,00,000	Cash and Bank	2,00,000
L's Loan	10,00,000		
Capital:			
L	15,00,000		
M	10,00,000		
S	5,00,000		
	47,00,000		47,00,000

Partners share profits equally. A firm of Chartered Accountants is retained to realise the assets and distribute the cash after discharge of liabilities. Their fees which is to include all expenses is fixed at ₹ 1,00,000. No loss is expected on realisation since fixed assets include valuable land and building. Realisations are:

S. No.	Amount in ₹
1	3,00,000
2	15,00,000
3	15,00,000
4	30,00,000
5	30,00,000

The Chartered Accountant firm decided to pay off the partners in 'Higher Relative Capital Method'. You are required to prepare a statement showing distribution of cash with necessary workings.

#### **Amalgamation of Partnership firms**

2. A and B are partners of AB & Co. sharing profits and losses in the ratio of 2:1 and C and D are partners of CD & Co. sharing profits and losses in the ratio of 3:2. On 1st April 2015, they decided to amalgamate and form a new firm M/s. AD & Co. wherein all the

partners of both the firm would be partners sharing profits and losses in the ratio of 2:1:3:2 respectively to A,B,C and D.

Their balance sheets on that date were as under:

Liabilities	AB & Co.	CD & Co.	Assets	AB & Co.	CD &
	(₹)	(₹)		(₹)	Co. (₹)
Capitals					
Α	1,50,000		Building	75,000	90,000
В	1,00,000		Machinery	1,20,000	1,00,000
С		1,20,000	Furniture	15,000	12,000
D		80,000	Inventory	24,000	36,000
Reserve	66,000	54,000	Trade receivables	65,000	78,000
Trade payable	52,000	35,000	Due from CD		
Due to AB		47,000	& Co.	47,000	
& Co.			Cash at Bank	18,000	15,000
			Cash in hand	4,000	5,000
	3,68,000	3,36,000		3,68,000	3,36,000

The amalgamated firm took over the business on the following terms:

- (a) Building was taken over at ₹ 1,00,000 and ₹ 1,25,000 of AB & Co. and CD & Co. respectively and Machinery was taken over at ₹ 1,25,000 and ₹ 1,10,000 of AB & Co. and CD & Co. respectively.
- (b) Goodwill of AB & Co. was worth ₹ 75,000 and that of CD & Co. was worth ₹ 50,000. Goodwill account was not to be opened in the books of the new firm, the adjustments being recorded through capital accounts of the partners.
- (c) Provision for doubtful debts has to be carried forward at ₹ 5,000 in respect of debtors of AB & Co. and ₹ 8,000 in respect of CD & Co.

You are required to:

- (i) Compute the adjustments necessary for goodwill.
- (ii) Pass the Journal Entries in the books of AD & Co. assuming that excess/deficit capital (taking D's capital as base) with reference to share in profits are to be transferred to current accounts.

#### Sale of Partnership firm to Company

3. Happy & Co. is a partnership firm consisting of Mr. A, Mr. B and Mr. C who share profits and losses in the ratio of 2:2:1 and Sad Ltd. is a company doing similar business.

Following is the summarized Balance sheet of the firm and that of the company as at 31.3.2015:

Liabilities	Happy & Co.	Sad Ltd.		Happy & Co.	Sad Ltd.
	₹	₹		₹	₹
Equity share Capital:			Plant & machinery	5,00,000	16,00,000
Equity shares of ₹ 10 each		20,00,000	Furniture & fixture Inventory	50,000 2,00,000	2,25,000 8,50,000
Partners capital:			Trade Receivables	2,00,000	8,25,000
А	2,00,000		Cash at bank	10,000	4,00,000
В	3,00,000		Cash in hand	40,000	1,00,000
С	1,00,000				
General reserve	1,00,000	7,00,000			
Trade Payables	3,00,000	13,00,000			
	10,00,000	40,00,000		10,00,000	40,00,000

It was decided that the firm Happy & Co. be dissolved and all the assets (except cash in hand and cash at bank) and all the liabilities of the firm be taken over by Sad Ltd. by issuing 50,000 shares of ₹ 10 each at a premium of ₹ 2 per share.

Partners of Happy & Co. agreed to divide the shares issued by Sad Ltd. in the profit sharing ratio and bring necessary cash for settlement of their capital.

The creditors of Happy & Co. includes ₹ 1,00,000 payable to Sad Ltd. An unrecorded liability of ₹ 25,000 of Happy & Co. must also be taken over by Sad Ltd.

#### Prepare:

- (i) Realisation account, Partners' capital accounts and Cash in hand/Bank account in the books of Happy & Co.
- (ii) Pass journal entries in the books of Sad Ltd. for acquisition of Happy & Co.

#### **Conversion of Partnership into a Company**

4. (a) Akash, Aman and Amit were partners of the firm '3A Enterprises' sharing profits and losses in the ratio of 3:2:1 respectively. On 31st March, 2015 their Balance Sheet stood as follows:

Liabilities	₹	Assets	₹
Akash's Capital A/c	16,80,000	Land and Buildings	14,00,000
Aman's Capital A/c	11,60,000	Machinery	11,00,000
Amit's Capital A/c	6,70,000	Furniture	6,10,000
General Reserve	6,30,000	Stock	8,40,000

Creditors	6,00,000	Debtors	6,00,000
		Cash at Bank	<u>1,90,000</u>
	<u>47,40,000</u>		<u>47,40,000</u>

On the above-mentioned date, the partners decided to convert their firm into a private limited company and named it '3A Enterprises (Private) Ltd.' The company took over all the assets including cash at bank and all the creditors for  $\ref{thm}$  42,00,000 payable in the form of fully paid equity shares of  $\ref{thm}$  10 each. It recorded in its books, land and buildings at  $\ref{thm}$  16,40,000, machinery at  $\ref{thm}$  9,90,000 and created a provision for bad debts  $\ref{thm}$  5% on debtors. The expenses of the take-over came to  $\ref{thm}$  23,000 which were paid and borne by the company.

The partners distributed the company's shares amongst themselves in their profit sharing ratio. They settled their accounts by paying or receiving cash.

Prepare Realization Account and all the partners' capital accounts in the firm's ledger and pass journal entries in the books of the company for all of its transactions mentioned above.

(b) What financial disclosures and returns are required to be filed by an LLP as per the LLP Act, 2008?

#### **Employees Stock Option Plan**

5. P Ltd. granted option for 8000 equity shares of ₹ 10 each on 1st October; 2010 at ₹ 80 when the market price was ₹ 170. The vesting period is 4 and half year, 4000 unvested options lapsed on 1st December; 2012; 3000 options are exercised on 30<sup>th</sup> September, 2015 and 1000 vested options lapsed at the end of the exercise period. Pass Journal Entries for above transactions

#### **Buy Back of Securities**

6. Alpha Limited furnishes the following summarized Balance Sheet as at 31st March, 2015:

Liabilities	(₹in lakhs)	Assets	(₹in lakhs)
Equity share capital	2,400	Machinery	3,600
(fully paid up shares of ₹ 10 each)		Furniture	450
Securities premium	350	Investment	148
General reserve	530	Inventory	1,200
Capital redemption reserve	400	Trade receivables	500
Profit & loss A/c	340	Cash at bank	1,500
12% Debentures	1,500		
Trade payables	1,400		
Other current liabilities	478		
	<u>7,398</u>		<u>7,398</u>

On 1<sup>st</sup> April, 2015, the company announced the buy back of 25% of its equity shares @ ₹ 15 per share. For this purpose, it sold all of its investments for ₹ 150 lakhs.

On 5th April, 2015, the company achieved the target of buy back.

You are required to:

- (1) Pass necessary journal entries for the buy-back.
- (2) Prepare Balance Sheet of Alpha Limited after of the shares.

#### **Underwriting of Securities**

7. Saurav Flour Mills Pvt. Ltd. floated a public issue of 1,50,000 Equity shares having face value of ₹ 10 each at par. A, B & C has taken underwriting of the issue in equal share with firm underwriting of 25,000, 20,000 & 20,000 shares respectively. Applications were received for 1,46,000 shares out of which the marked applications were as under:

A -24,600 B-20,000 C-15,000

Total applications received for 1,46,000 shares include applications by underwriters for firm underwriting.

Credit of unmarked applications is to be given to underwriters equally. The agreed underwriting commission was 5%. Total amount payable on application and allotment was ₹ 5 and balance in calls. Compute the following:

- (i) Liability of each underwriter (in shares as well as in amount) if the benefit of the firm underwriting is not given to individual underwriter.
- (ii) Commission due to underwriters.
- (iii) Net Cash paid/received from underwriters.

#### **Redemption of Debentures**

8. Alia Ltd. took over the assets of ₹ 5,00,000 and creditors of ₹ 70,000 of Bharat & Co. for an agreed amount of ₹ 5,50,000 by the issue of fully paid 12% Debentures of ₹ 100 each at a premium of 10%. These Debentures are redeemable at a premium of 5% after 3 years. Pass the necessary journal entries both at the time of issue and Redemption of Debentures without providing for the interest.

#### **Amalgamation of Companies**

9. The summarized Balance Sheet of Reckless Ltd. as on 31st March, 2015 is as follows:

	₹
Assets:	
Freehold premises	2,20,000
Machinery	1,77,000
Furniture & fittings	90,800

Inventory		3,87,400
Trade receivables	95,000	
Less: Provision for doubtful debts	(4,000)	91,000
Cash in hand		2,300
Cash at bank		1,56,500
		<u>11,25,000</u>
Liabilities:		
60,000 Equity shares of ₹10 each		6,00,000
Pre-incorporation profit		21,000
Contingency reserve		1,35,000
Profit and loss account		1,26,000
Trade payables		1,33,000
Provision for income-tax		<u>1,10,000</u>
		<u>11,25,000</u>

Trade receivables consist of debtors amounting ₹ 80,000 and bill receivables worth ₹ 15,000. Trade payables consist of creditors amounting to ₹ 1,13,000 and acceptances worth ₹ 20,000.

Careful Ltd. decided to take over Reckless Ltd. from 31st March, 2015 with the following assets at value noted against them:

	₹
Bills receivable	15,000
Freehold premises	4,00,000
Furniture and fittings	80,000
Machinery	1,60,000
Stock	3,45,000

¼ of the consideration was satisfied by the allotment of fully paid preference shares of ₹ 100 each at par which carried 13% dividend on cumulative basis. The balance was paid in the form of Careful Ltd's equity shares of ₹ 10 each, ₹ 8 paid up.

Sundry Debtors realised ₹ 79,500. Acceptances were settled for ₹ 19,000. Income-tax authorities fixed the taxation liability at ₹ 1,11,600. Creditors were finally settled with the cash remaining after meeting liquidation expenses amounting to ₹4,000.

You are required to:

- (i) Calculate the number of equity shares and preference shares to be allotted by Careful Ltd. in discharge of consideration.
- (ii) Prepare the important ledger accounts in the books of Reckless Ltd.

#### Internal Reconstruction of a Company

10. M/s Xylem Limited has decided to reconstruct the Balance Sheet since it has accumulated huge losses. The following is the summarized Balance Sheet of the company as on 31st March, 2015 before reconstruction:

Liabilities	Amount (₹)	Assets	Amount (₹)
Share Capital		Land & Building	42,70,000
50,000 shares of ₹ 50		Machinery	8,50,000
each fully paid up	25,00,000	Computers	5,20,000
1,00,000 shares of ₹ 50		Inventories	3,20,000
each ₹ 40 paid up	40,00,000	Trade receivables	10,90,000
Capital Reserve	5,00,000	Cash at Bank	2,68,000
8% Debentures of ₹ 100 each	4,00,000	Profit & Loss Account	29,82,000
12% Debentures of ₹ 100 each	6,00,000		
Trade creditors	12,40,000		
Outstanding Expenses	10,60,000		
	1,03,00,000		<u>1,03,00,000</u>

Following is the interest of Mr. A and Mr. B in M/s Xylem Limited:

	Mr. A	Mr. B
8% Debentures	3,00,000	1,00,000
12% Debentures	4,00,000	<u>2,00,000</u>
Total	7,00,000	3,00,000

The following scheme of internal reconstruction was framed and implemented, as approved by the court and concerned parties:

- (1) Uncalled capital is to be called up in full and then all the shares to be converted into Equity Shares of ₹ 40 each.
- (2) The existing shareholders agree to subscribe in cash, fully paid up equity shares of 40 each for ₹ 12,50,000.
- (3) Trade creditors are given option of either to accept fully paid equity shares of ₹ 40 each for the amount due to them or to accept 70% of the amount due to them in

cash in full settlement of their claim. Trade creditors for ₹ 7,50,000 accept equity shares and rest of them opted for cash towards full and final settlement of their claim.

- (4) Mr. A agrees to cancel debentures amounting to ₹ 2,00,000 out of total debentures due to him and agree to accept 15% Debentures for the balance amount due. He also agree to subscribe further 15% Debentures in cash amounting to ₹ 1,00,000.
- (5) Mr. B agrees to cancel debentures amounting to ₹ 50,000 out of total debentures due to him and agree to accept 15% Debentures for the balance amount due.
- (6) Land & Building to be revalued at ₹ 51,84,000, Machinery at ₹ 7,20,000, Computers at ₹ 4,00,000, Inventories at ₹ 3,50,000 and Trade receivables at 10% less to as they are appearing in Balance Sheet as above.
- (7) Outstanding Expenses are fully paid in cash.
- (8) Profit & Loss A/c will be written off and balance, if any, of Capital Reduction A/c will be adjusted against Capital Reserve.

You are required to pass necessary Journal Entries for all the above transactions and draft the company's Balance Sheet immediately after the reconstruction.

#### Liquidation of Company

11. The position of Careless Ld. on its liquidation is as under:

5,000, 10% Preference Shares of ₹ 100 each ₹ 60 paid up

2,000, Equity shares of ₹ 75 each, ₹ 50 paid up

Unsecured Creditors ₹ 99.000

Liquidation Expenses ₹ 1,000

Liquidator is entitled to a commission of 2% on the amount realized from calls made on contributories

You are required to Prepare Liquidator's Final Statement of Account if the total assets realized ₹ 3,80,400.

#### **Financial Statements of Insurance Companies**

12. (a) From the following information of Reliable Marine Insurance Ltd. for the year ending 31st March, 2015, find out Net premiums earned.

	(₹)	(₹)
	Direct Business	Re-insurance
Premium:		
Received	17,60,000	1,50,400

Receivable - 01.04.2014	87,800	7,200
Receivable - 31.03.2015	75,400	6,400
Paid	1,21,800	
Payable - 01.04.2014		5,400
Payable - 31.03.2015		3,600

(b) Modern Insurance Company's Fire Insurance division provide the following information, show the amount of claim as it would appear in the Revenue Account for the year ended 31st March, 2015.

	Direct Business	Re-insurance
	₹	₹
Claim paid during the year	7,06,000	1,64,000
Claim received		64,000
Claim payable		
1 <sup>st</sup> April, 2014	1,64,600	11,600
31st March, 2015	1,75,000	17,400
Claim receivable:		
1 <sup>st</sup> April, 2014	-	17,000
31st March, 2015	-	28,400
Expenses of management	69,000	
(Includes ₹ 7,600 Surveyor's fee		
and ₹ 8,400 Legal expenses for settlement of claims)		

#### Financial Statements of a Banking Company

13. From the following information, compute the amount of provisions to be made in the Profit and Loss Account of a Commercial Bank for the year ending on 31-03-2015.

Assets (Category of Advances)	₹ in Lakhs		
Standard Advances	5,000		
Sub-standard Advances	3,500		
(Include secured exposures ₹ 1,000 Lakhs and balances unsecured exposures ₹ 2,500 Lakhs includes ₹ 1,500 Lakhs in respect of infrastructure loan accounts where escrow accounts are available)			
Doubtful advances- unsecured portion	1,600		
Doubtful advances- secured portion			
For doubtful up to 1 year	500		

For doubtful more than 1 year and up to 3 years	600
For doubtful more than 3 years	300
Loss Advances	100

## **Departmental Accounts**

14. Following is the Trial Balance of Mr. Mohan as on 31.03.2015:

	Particulars	Debit (₹)	Credit (₹)
Capital Account			40,000
Drawing Account		1,500	
Opening Stock	Department A	8,500	
	Department B	5,700	
	Department C	1,200	
Purchases	Department A	22,000	
	Department B	17,000	
	Department C	8,000	
Sales	Department A		54,000
	Department B		33,000
	Department C		21,000
Sales Returns	Department A	4,000	
	Department B	3,000	
	Department C	1,000	
Freight and Carriage	Department A	1,400	
	Department B	800	
	Department C	200	
Furniture and fixtures		4,600	
Plant and Machinery		20,000	
Motor Vehicles		40,000	
Sundry Debtors		12,200	
Sundry Creditors			15,000
Salaries		4,500	
Power and water		1,200	
Telephone charges		2,100	
Bad Debts		750	

Rent and taxes		6,000	
Insurance		1,500	
Wages	Department A	800	
	Department B	550	
	Department C	150	
Printing and Stationeries		2,000	
Advertising		3,500	
Bank Overdraft			12,000
Cash in hand		<u>850</u>	
		1,75,000	1,75,000

You are required to prepare Department Trading, Profit and Loss Account and the Balance Sheet taking into account the following adjustments:

- (a) Outstanding Wages: Department B- ₹ 150, Department C ₹ 50.
- (b) Depreciate Plant and Machinery and Motor Vehicles at the rate of 10%.
- (c) Each Department shall share all expenses in proportion to their sales.
- (d) Closing Stock: Department A  $\stackrel{?}{_{\sim}}$  3,500, Department B  $\stackrel{?}{_{\sim}}$  2,000, Department C  $\stackrel{?}{_{\sim}}$  1,500.

#### **Branch Accounting**

15. Alpha Ltd. has a retail shop under the supervision of a manager. The ratio of gross profit to selling price is constant at 25 per cent throughout the year to 31st March, 2015.

Branch manager is entitled to a commission of 10 per cent of the profit earned by his branch, calculated before charging his commission but subject to a deduction from such commission equal in 25 per cent of any ascertained deficiency of branch stock. All goods were supplied to the branch in head office.

From the under mentioned figures, calculate the commission due to manager for the year end 31st March, 2015.

	₹		₹
Opening Stock (at cost)	74,736	Chargeable expenses	49,120
Goods sent to branch (at cost)	2,89,680	Closing Stock (Selling Price)	1,23,328
Sales	3,61,280		
Manager's commission paid			
on account	2,400		

#### Foreign branch

16. Omega Ltd., an Indian company has a branch at New York (USA). The trial balance of the Branch as at 31st March, 2015 is as follows:

Particulars	U	S\$
	Dr.	Cr.
Fixed Assets	51,200	
Opening Stock	22,400	
Purchases/Sales	96,000	1,66,400
Goods Sent from HO	32,000	
Carriage Inward	400	
Branch Expenses	4,800	
Head Office Account	-	45,600
Sundry Debtors/Creditors	9,600	6,800
Cash and Bank	2,400	
	<u>2,18,800</u>	<u>2,18,800</u>

The following further information is given below:

- (1) Expenses outstanding \$ 400.
- (2) Depreciate Fixed Assets @ 10% p.a. at written down value.
- (3) The Head Office sent goods to Branch for ₹ 15,80,000.
- (4) The head office shown an amount of ₹ 20,50,000 due from Branch.
- (5) Closing Stock \$ 21,500.
- (6) There were no transit items either at the start or at the end of the year.
- (7) On April 1, 2013 when the fixed assets were purchased the rate of exchange was ₹ 43 to one \$. On April 1, 2014, the rate was ₹ 47 per \$.On March 31, 2015, the rate was ₹ 50 per \$. Average Rate during the year was ₹ 45 to one \$.

You are required to convert the given USA Branch trail balance in ₹ assuming that the Branch is an Integral Foreign Operation of the Indian Company. Calculate Foreign Exchange gains/loss and show its Accounting Treatment as per AS11.

#### **Problems based on Accounting Standards**

#### AS 4 Contingencies and Events Occruing after Balance Sheet Date

- 17. (a) F Ltd. has finalized their financial statements for the year ending 31st March, 2015 and approved by their approving authority on 30th June, 2015.
  - (1) A major fire broke out in the night of 31st May, 2015 destroying factory

- premises. Loss of property estimated to be ₹ 25 lakhs.
- (2) Negotiations with another company started in April 2015 for acquisition of two manufacturing units which may involve additional investments of ₹ 50 lakhs.
- (3) Foreign exchange loss during the period 1st April, 2015 and 1st June 2015 has resulted that assets being reduced by ₹ 30 lakhs.

You are requested to state how to deal with the above information's in the annual accounts.

#### AS 11 The Effects of Changes in Foreign Exchange Rates

(b) Trade receivables as on 31.3.2015 in the books of XYZ Ltd. include an amount receivable from Umesh ₹ 5,00,000 recorded at the prevailing exchange rate on the date of sales, i.e. at US \$ 1 = ₹ 58.50. US \$ 1 = ₹ 61.20 on 31.3.2015.

Explain briefly the accounting treatment needed in this case as per AS 11 as on 31.3.2015.

#### **AS 12 Accounting for Government Grants**

18. (a) Samrat Limited has set up its business in a designated backward area which entitles the company for subsidy of 25% of the total investment from Government of India. The company has invested ₹ 80 crores in the eligible investments. The company is eligible for the subsidy and has received ₹ 20 crores from the government in February 2014. The company wants to recognize the said subsidy as its income to improve the bottom line of the company.

Do you approve the action of the company in accordance with the Accounting Standard?

#### **AS 16 Borrowing Costs**

(b) Tip top Limited has borrowed a sum of US \$ 10,00,000 at the beginning of Financial Year 2014-15 for its residential project at 4 %. The interest is payable at the end of the Financial Year. At the time of availment exchange rate was ₹ 56 per US \$ and the rate as on 31st March, 2015 was ₹ 62 per US \$. If Tip top Builders Limited borrowed the loan in India in Indian Rupee equivalent, the pricing of loan would have been 10.50%. Compute Borrowing Cost and exchange difference for the year ending 31st March, 2015 as per applicable Accounting Standards

#### **AS 19 Leases**

19. (a) Ryan International Limited has given a machinery on lease for 36 months, and its useful life is 60 months. Cost & fair market value of the machinery is ₹ 5,00,000. The amount will be paid in 3 equal annual installments and the lessee will return the machinery to lessor at termination of lease. The unguaranteed residual value at the end of 3 years is ₹ 50,000. IRR of investment is 10% and present value of annuity factory of ₹ 1 due at the end of 3 years at 10% IRR is 2.4868 and present value of

₹ 1 due at the end of 3<sup>rd</sup> year at 10% IRR is 0.7513.

You are required to comment with reason whether the lease constitute finance lease or operating lease.

#### **AS 20 Earning Per Shares**

(b) From the following information, you are required to compute the basic and adjusted eamings per share:

Net profit for 2013-14	11 lakh
Net profit for 2014-15	15 lakh
No. of shares issued before rights issue	5 lakhs
Right issue	One for every 5 held
Right issue price	15 per share
Last date of exercising right option	1-06-2014
Fair value of shares before right issue	21 per share

#### **AS 26 Intangible Assets**

20. (a) On 31-03-2015, the Balance Sheet of Alpha Ltd. shows an item of Intangible assets at ₹ 30 Lakhs. The asset was acquired on 1-4-2010 for ₹ 80 lakhs and was available for use on that date. The company has been following a policy of amortizing intangible assets over a period of 8 years on straight line basis. How you will deal in the books of accounts if the company determines by applying the best estimate of its useful life on 1-4-2015, and the the amortization period to be 10 years, being the best estimate of its useful life from the date, it was available for use.

#### AS 29 Provisions, Contingent Liabilities and Contingent Assets

- (b) Sun Ltd. has entered into a sale contract of ₹ 5 crores with X Ltd. during 2013-14 financial year. The profit on this transaction is ₹ 1 crore. The delivery of goods to take place during the first month of 2014-15 financial year. In case of failure of Sun Ltd. to deliver within the schedule, a compensation of ₹ 1.5 crores is to be paid to X Ltd. Sun Ltd. planned to manufacture the goods during the last month of 2013-14 financial year. As on balance sheet date (31.3.2014), the goods were not manufactured and it was unlikely that Sun Ltd. will be in a position to meet the contractual obligation.
  - (i) Should Sun Ltd. provide for contingency as per AS 29?
  - (ii) Should provision be measured as the excess of compensation to be paid over the profit?

#### **SUGGESTED ANSWERS/HINTS**

## In the Books of M/s OMEGA Statement showing distribution of cash among the Partners (Under Higher Relative Capital method)

						Canital Mas	
	Λ .	0	Dll	12. 1	,	Capital A/cs	0
Particulars	Amount available	Creditors	Bank Loan	L's loan	L	М	S
	₹		₹	₹	₹	₹	₹
Balance due		2,00,000	5,00,000	10,00,000	15,00,000	10,00,000	5,00,000
1st Instalment (including cash and bank balances)	5,00,000						
Less: Liquidator's Expenses and fees	1,00,000						
	4,00,000						
Less: Payment to Creditors and repayment of							
Bank Loan in the							
ratio of 2:5	(4,00,000)	(1,14,286)	(2,85,714)	_	_	_	_
Balance Due		85,714	2,14,286	10,00,000	15,00,000	10,00,000	5,00,000
2nd Instalment	15,00,000						
Less: Payment to Creditors and repayment of Bank loan in full settlement	(3,00,000)	(85,714)	(2,14,286)	_		-	_
Balance	12,00,000	-	_	10,00,000	15,00,000	10,00,000	5,00,000
Less: Repayment of L's Loan	(10,00,000)	_	_	(10,00,000	_	-	-
	2,00,000			-	15,00,000	10,00,000	5,00,000
Less: Payment to Mr. L towards relative higher capital (W.N. 1)	(2,00,000)	_	-	-	(2,00,000)	-	-
Balance Due 3rd Instalment	15,00,000				13,00,000	10,00,000	5,00,000

Less: Payment to Mr. L towards higher relative capital (W.N. 2)	(3,00,000)	(3,00,000) –	-
	12,00,000	10,00,000 10,00,000	5,00,000
Less: Payment to Mr. L & Mr. M towards excess capital (W.N. 1&2)	(10,00,000)	(5,00,000) (5,00,000)	-
	2,00,000	5,00,000 5,00,000	5,00,000
Less: Payment to all the partners equally	(2,00,000)	(66,667)	(66,666)
Balance due	_	4,33,333 4,33,333	4,33,334
4th Instalment	30,00,000		
Less: Payment to all the partners equally	(30,00,000)	(10,00,000) (10,00,000)	(10,00,000)
Realisation profit credited to Partners		5,66,667 5,66,667	5,66,666
5th Instalment	30,00,000		
Less: payment to all partners equally	(30,00,000)	10,00,000 10,00,000	10,00,000
Realisation profit credited to partners		15,66,667 15,66,667	15,66,666

## **Working Notes:**

(i) Scheme of payment of surplus amount of ₹ 2,00,000 out of second Instalment:

			Capital A/cs
	L	М	S
Balance (i)	15,00,000	10,00,000	5,00,000
Profit sharing ratio (ii)	1	1	1
Capital taking S's Capital (iii)	5,00,000	5,00,000	5,00,000
Excess Capital (iv) = (i) - (iii)	10,00,000	5,00,000	
Profit Sharing Ratio	1	1	
Excess capital taking			
M's Capital as base (v)	5,00,000	5,00,000	
Higher Relative Excess (iv) - (iv)	5,00,000		

So Mr. L should get  $\stackrel{?}{\underset{?}{?}}$  5,00,000 first which will bring down his capital account balance from  $\stackrel{?}{\underset{?}{?}}$  15,00,000 to  $\stackrel{?}{\underset{?}{?}}$  10,00,000. Accordingly, surplus amounting to  $\stackrel{?}{\underset{?}{?}}$  2,00,000 will be paid to Mr. L towards higher relative capital.

- (ii) Scheme of payment of ₹ 15,00,000 realised in 3rd Instalment:
  - Payment of ₹ 3,00,000 will be made to Mr. L to discharge higher relative capital. This makes the higher capital of both Mr. L and Mr. M by ₹ 5,00,000 as compared to capital of Mr. S.
  - Payment of ₹ 5,00,000 each of Mr. L & Mr. M to discharge the higher capital.
  - Balance ₹ 2,00,000 equally to L, M and S, i.e., ₹ 66,667 ₹ 66,667 and ₹ 66,666 respectively.

#### 2. (i) Adjustment for raising & writing off of goodwill

	Goodwill raised in old profit sharing ratio					Goodwill written off in new ratio	Difference
	AB & Co.	CD & Co.	Total	AD & Co.			
	₹	₹	₹	₹	₹		
Α	50,000		50,000 Cr.	31,250 Dr.	18,750 Cr.		
В	25,000		25,000 Cr.	15,625 Dr.	9,375 Cr.		
С		30,000	30,000 Cr.	46,875 Dr.	16,875 Dr.		
D		20,000	20,000 Cr.	<u>31,250 Dr.</u>	11,250 Dr.		
	<u>75,000</u>	50,000	1,25,000	1,25,000			

### In the books of AD & Co.

(ii)

#### **Journal Entries**

Date	Particulars		Debit	Credit
			₹	₹
April 1 2015	Building A/c	Dr.	1,00,000	
	Machinery A/c	Dr.	1,25,000	
	Furniture A/c	Dr.	15,000	
	Stock A/c	Dr.	24,000	
	Debtors A/c	Dr.	65,000	
	CD & Co. A/c	Dr.	47,000	
	Cash at bank A/c	Dr.	18,000	
	Cash in hand A/c	Dr.	4,000	
	To Provision for doubtful debts A/c			5,000
	To Creditors A/c			52,000
	To A's capital A/c (W.N. 2a)			2,10,667

	To B's capital A/c (W.N.2 a) (Being the sundry assets and liabilities of AB & Co. taken over at the values stated as per the agreement)			1,30,333
April 1, 2015	Building A/c	Dr.	1,25,000	
April 1, 2013	Machinery A/c	Dr.	1,10,000	
	Furniture A/c	Dr.	12,000	
	Stock A/c	Dr.		
	Debtors A/c		36,000	
	Cash at bank A/c	Dr.	78,000	
		Dr.	15,000	
	Cash in hand A/c	Dr.	5,000	0.000
	To Provision for doubtful debts A/c			8,000
	To Creditors A/c			35,000
	To AB & Co. A/c			47,000
	To C's capital A/c (W.N. 2b)			1,74,600
	To D's capital A/c (W.N. 2b)			1,16,400
	(Being the sundry assets and liabilities			
	of CD & Co. taken over at the values stated as per the agreement)			
		Dr.	16 075	
	C's capital A/c	Dr.	16,875	
	D's capital A/c	DI.	11,250	10.750
	To A's capital A/c			18,750
	To B's capital A/c			9,375
	(Being adjustment in capital accounts of the partners on account of goodwill)			
	AB & Co. A/c	Dr.	47,000	
	To CD & Co. A/c			47,000
	(Being mutual indebtedness of AB & Co. and CD & Co. cancelled)			
	A's Capital A/c	Dr.	1,24,267	
	To A's Current A/c			1,24,267
	(Being excess amount in A's capital A/c transferred to A's current A/c - refer W.N.3)			
	B's Capital A/c	Dr.	87,133	
	To B's Current A/c		, , , , , ,	87,133
	(Being excess amount in B's capital A/c transferred to B's current A/c - refer W.N.3)			

## **Working Notes:**

## (1) Profit on Revaluation

	AB & Co.	CD & Co.
	₹	₹
Building (1,00,000 – 75,000)	25,000	
(1,25,000 - 90,000)		35,000
Machinery (1,25,000 – 1,20,000)	5,000	
(1,10,000-1,00,000)		10,000
	30,000	45,000
Less: Provision for doubtful debts	(5,000)	(8,000)
	25,000	37,000

## (2) Balance of capital accounts of partners on transfer of business to AD & Co.

## (a) AB & Co.

	A's Capital	B's Capital
	₹	₹
Balance as per the Balance Sheet	1,50,000	1,00,000
Reserves in the profits and losses sharing ratio	44,000	22,000
Profit on revaluation in the profits and losses		
sharing ratio (W.N.1)	16,667	<u>8,333</u>
	<u>2,10,667</u>	<u>1,30,333</u>

## (b) CD & Co.

	C's Capital	D's Capital
	₹	₹
Balance as per the Balance Sheet	1,20,000	80,000
Reserves in the profits and losses sharing ratio	32,400	21,600
Profit on revaluation in the profits and losses		
sharing ratio (W.N.1)	22,200	<u> 14,800</u>
	<u>1,74,600</u>	<u>1,16,400</u>

## (3) Calculation of capital of each partner in the new firm

Particulars	Α	В	С	D
	₹	₹	₹	₹
Balance as per W.N.2	2,10,667	1,30,333	1,74,600	1,16,400

Adjustment for goodwill	18,750	9,375	(16,875)	(11,250)
	2,29,417	1,39,708	1,57,725	1,05,150
Total capital ₹ 4,20,600* in the new ratio of 2:1:3:2	(1,05,150)	(52,575)	(1,57,725)	(1,05,150)
Transfer to Current Account	1,24,267 Cr.	87,133 Cr.	-	-

<sup>\*</sup> Taking D's capital as the base which is  $2/8^{th}$  of total capital; total capital will be  $1,05,150 \times 8/2$  i.e. ₹ 4,20,600.

## 3. (i) In the books of Happy & Co. Realisation Account

		₹			₹
То	Plant & Machinery	5,00,000	Ву	Trade payables	3,00,000
То	Furniture & Fixture	50,000	Ву	Sad Ltd. (Refer W.N.)	6,00,000
То	Stock in trade	2,00,000	Ву	Partners' Capital Accounts (loss):	
То	Trade receivables	2,00,000		A 's Capital A/c	20,000
				B's Capital A/c	20,000
				C's Capital A/c	10,000
		9,50,000			9,50,000

## **Partners' Capital Accounts**

	Α	В	С		Α	В	С
	₹	₹	₹		₹	₹	₹
To Realisation A/c	20,000	20,000	10,000	By Balance b/d	2,00,000	3,00,000	1,00,000
To Shares in Sad Ltd.		2,40,000	1,20,000	By General Reserve	40,000	40,000	20,000
To Cash		80,000		By Cash	20,000		10,000
	2,60,000	3,40,000	1,30,000		2,60,000	3,40,000	1,30,000

#### **Cash and Bank Account**

		₹	₹			₹	₹
To	Balance b/d	40,000	10,000	Ву	Cash A/c (Contra)*		10,000
То	Bank A/c (Contra)*	10,000		Ву	В	80,000	
To	Α	20,000					
To	С	10,000					
		80,000	10,000			80,000	10,000

<sup>\*</sup> It is assumed that cash at bank has been withdrawn to pay to Partner B.

## (ii) In the Books of Sad Ltd. Journal Entries

			Dr. (₹)	Cr. (₹)
1.	Business Purchase Account	Dr.	6,00,000	
	To Liquidators of Happy & Co.			6,00,000
	(Being business of Happy & Co. purchased and payment due)			
2.	Plant and Machinery A/c	Dr.	5,00,000	
	Furniture and Fixture A/c	Dr.	50,000	
	Inventory A/c	Dr.	2,00,000	
	Trade receivables A/c	Dr.	2,00,000	
	To Trade payables			3,00,000
	To Unsecured Liability			25,000
	To Business Purchase Account			6,00,000
	To Capital Reserve (B.F.)			25,000
	(Being take over of all assets and liabilities)	_		
3.	Liquidators of Happy & Co.	Dr.	6,00,000	
	To Equity Share Capital Account			5,00,000
	To Securities Premium Account			1,00,000
	(Being purchase consideration discharged in the form of shares of ₹ 10 each issued at a premium of ₹ 2 each)			
4.	Trade payables Account	Dr.	1,00,000	
	To Trade receivables Account			1,00,000
	(Being mutual owing eliminated)			

## **Working Note:**

## Computation of purchase consideration:

50,000 Equity shares of ₹ 12 each = ₹ 6,00,000

Equity shares to be given to partners.

Partners A	=	20,000 Shares @ ₹ 12 = ₹ 2,40,000
Partner B	=	20,000 shares @ ₹ 12 = ₹ 2,40,000
Partner C	=	10,000 shares @ ₹ 12 = ₹ 1,20,000

## 4. (a) In the books of 3A Enterprises

#### **Realisation Account**

	₹		₹
To Land and Buildings	14,00,000	By Creditors	6,00,000
To Machinery	11,00,000	By 3A Enterprises (Pvt.) Ltd. A/c	42,00,000
To Furniture	6,10,000		
To Stock	8,40,000		
To Debtors	6,00,000		
To Cash at Bank	1,90,000		
To Akash's capital	30,000		
To Aman's capital	20,000		
To Amit's capital	10,000		
	<u>48,00,000</u>		<u>48,00,000</u>

## **Partners' Capital Accounts**

	Akash	Aman	Amit		Akash	Aman	Amit
	₹	₹	₹		₹	₹	₹
To Shares in 3A Enterprises	21,00,000	14,00,000	7,00,000	By Balance b/d	16,80,000	11,60,000	6,70,000
(Pvt.) Ltd. A/c				By General Reserve	3,15,000	2,10,000	1,05,000
To Bank A/c (Settlement)	-	-	85,000	By Realization A/c (Profit)	30,000	20,000	10,000
				By Bank A/c			
				(Cattlement)	<u>75,000</u>	10,000	
	21,00,000	14,00,000	7.85.000	(Settlement)	21,00,000	14,00,000	7,85,000

# In the Books of 3A Enterprises (Private) Ltd Journal Entries

			₹	₹
1.	Business Purchase A/c	Dr.	42,00,000	
	To M/s 3A Enterprises			42,00,000
	(Consideration payable for business purchased)	_		
2.	Land and Buildings A/c	Dr.	16,40,000	
	Machinery A/c	Dr.	9,90,000	
	Furniture A/c	Dr.	6,10,000	

	Stock A/c	Dr.	8,40,000	
	Debtors A/c	Dr.	6,00,000	
	Bank A/c	Dr.	1,90,000	
	To Creditors A/c			6,00,000
	To Provision for doubtful debts A/c			30,000
	To Business Purchase A/c			42,00,000
	To Capital Reserve A/c (balancing figure)			40,000
	(Assets and liabilities taken over for ₹ 42,00,000; balance credited to capital reserve)			
3.	Capital reserve A/c (Expenses of takeover)	Dr.	23,000	
	To Bank A/c			23,000
	(Expenses for take over debited to capital reserve)			
4.	M/s 3A Enterprises A/c	Dr.	42,00,000	
	To Equity share capital A/c			42,00,000
	(Allotment of fully paid equity shares to discharge consideration for business)			

(b) As per section 34 of the LLP Act, 2008, every LLP shall maintain such proper books of accounts as may be prescribed relating to its affairs for each year of its existence on cash basis or accrual basis and according to the double entry system of accounting and shall maintain the same at its registered office for such period as may be prescribed. Every LLP shall, within six months of the end of each financial year, prepare a Statement of Account and Solvency for the said financial year as at the last day of the said financial year, in such form as may be prescribed, and such statement shall be signed by the designated partners of the LLP. Every LLP shall also file within the prescribed time, the Statement of Account and Solvency with the Registrar every year in such form and manner and accompanied by such fee as may be prescribed. The accounts of an LLP must be audited in accordance with such rules as may be prescribed.

Under Section 35 (1) of the LLP Act every LLP is required to file an Annual Return which is duly authenticated with the registrar within sixty days of the closure of its financial year in such form and manner and with such fees as may be prescribed.

# 5. In the books of P Ltd. Journal Entries

Date	Particulars		(₹)	(₹)
31.3.2011	Employees compensation expenses account	Dr.	80,000	

	To Employee stock option outstanding account			80,000
	(Being compensation expenses for 6 months recognized in respect of the employee stock option i.e. 8,000 options granted to employees at a discount of ₹ 90 each, amortised on			
	straight line basis over $4\frac{1}{2}$ years [(8,000 stock			
	options x ₹ 90)/4.5 years] x 0.5) (W.N.1)			
	Profit and loss account  To Employees compensation expenses account	Dr.	80,000	80,000
	(Being expenses transferred to profit and loss account at the year end)			
31.3.2012	Employees compensation expenses account  To Employee stock option outstanding account	Dr.	1,60,000	1,60,000
	(Being compensation expense recognized in respect of the employee stock option i.e. 8,000 options granted to employees at a discount of ₹ 90 each, amortised on straight line basis over			
	$4\frac{1}{2}$ years (8,000 stock options x ₹ 90)/4.5			
	years) x 1 year)			
	Profit and loss account  To Employees compensation expenses account	Dr.	1,60,000	1,60,000
	(Being expenses transferred to profit and loss account at year end)			
31.3.2013	Employees compensation expenses account	Dr.	80,000	
	To Employee stock option outstanding account			80,000
	(Being compensation expense recognized in respect of the employee stock option i.e. 4,000 options at a discount of ₹ 90 each, amortised			
	on straight line basis over $4\frac{1}{2}$ years (4,000)			
	stock options x ₹ 90)/4.5 years)			

	Employee stock option outstanding account (W.N.2)  To General Reserve account (W.N.2)  (Being excess of employees compensation expenses transferred to general reserve account)	Dr.	1,20,000	1,20,000
	Profit and loss account	Dr.	80,000	
	To Employees compensation expenses account			80,000
	(Being expenses transferred to profit and loss account at year end)	_		
31.3.2014	Employees compensation expenses account  To Employee stock option outstanding	Dr.	80,000	80,000
	account			00,000
	(Being compensation expenses recognized in respect of the employee stock option i.e. 4,000 options at a discount of ₹ 90 each, amortised			
	on straight line basis over $4\frac{1}{2}$ years (4,000)			
	stock options x ₹ 90)/4.5 years)	_		
	Profit and loss account	Dr.	80,000	
	To Employees compensation expenses account			80,000
	(Being expenses transferred to profit and loss account at year end)	_		
31.3.2015	Employees compensation expenses account	Dr.	80,000	
	To Employee stock option outstanding account			80,000
	(Being compensation expenses recognized in respect of the employee stock option i.e. 4,000 options at a discount of ₹ 90 each, amortised			
	on straight line basis over $4\frac{1}{2}$ years [(4,000)			
	stock options x ₹ 90)/4.5 years])	_		
	Profit and loss account	Dr.	80,000	
	To Employees compensation expenses account			80,000
	(Being expenses transferred to profit and loss account at year end)	<u>-</u>		

30.9.2015	Bank A/c (3,000 × ₹ 80)	Dr.	2,40,000	
	Employee stock option outstanding	Dr.	2,70,000	
	To Equity share capital account (3,000 x ₹ 10)			30,000
	To Securities premium ₹ (170-10) x 3,000			4,80,000
	(Being 3,000 employee stock option exercised at an exercise price of ₹ 80 each)			
	Employee stock option outstanding account (W.N.3)	Dr.	90,000	
	To General reserve account (W.N.3)			90,000
	(Being ESOS outstanding A/c transferred to General Reserve A/c on lapse of 1000 vested options at the end of the exercise period)			

## **Working Notes:**

- 1. Fair value = ₹170 ₹80= ₹90
- 2. At 1.12.12, 4,000 unvested option lapsed, on which expenses already recognized to be transferred to general reserve =  $\in$  (80,000 + 1,60,000) x 4,000/8,000 =  $\in$  1,20,000
- 3. Expenses charged on vested options lapsed transferred to general reserve =  $1,000 \times 7000 = 70000$

# 6. In the books of Alpha Limited Journal Entries

Date	Particulars		Dr.	Cr.
2015			(₹in	lakhs)
April 1	Bank A/c	Dr.	150	
	To Investment A/c			148
	To Profit on sale of investment			2
	(Being investment sold on profit)			
April 5	Equity share capital A/c	Dr.	600	
	Securities premium A/c	Dr.	300	
	To Equity shares buy back A/c			900
	(Being the amount due to equity shareholders on buy b	oack)		
	Equity shares buy back A/c	Dr.	900	

	To Bank A/c		900
	(Being the payment made on account of buy back of 60 Lakh Equity Shares)		
April 5	General reserve A/c Dr.	530	
	Profit and Loss A/c Dr.	70	
	To Capital redemption reserve A/c		600
	(Being amount equal to nominal value of bought back shares from free reserves transferred to capital redemption reserve account as per the law)		

## **Balance Sheet (After buy back)**

Par	ticula	rs	Note No	Amount (₹in Lakhs)
I.	Equ	ity and Liabilities		
	(1)	Shareholder's Funds		
		(a) Share Capital	1	1,800
		(b) Reserves and Surplus	2	1,322
	(2)	Non-Current Liabilities		
		(a) Long-term borrowings - 12% Debentures		1,500
	(3)	Current Liabilities		
		(a) Trade payables		1,400
		(b) Other current liabilities		478
		Total		6,500
II.	Ass	ets		
	(1)	Non-current assets		
		(a) Fixed assets		
		(i) Tangible assets	3	4,050
	(2)	Current assets		
		(a) Current investments		
		(b) Inventory		1,200
		(c) Trade receivables		5,00
		(d) Cash and cash equivalents (W.N.)		750
		Total		6,500

#### **Notes to Accounts**

			₹
1.	Share Capital		
	Equity share capital (Fully paid up shares of ₹10 each)		1800
2.	Reserves and Surplus		
	General Reserve 530		
	Less: Transfer to CRR (530)	-	
	Capital Redemption Reserve 400		
	Add: Transfer due to buy-back of shares from P/L 70		
	Transfer due to buy-back of shares from Gen. res. 530	1,000	
	Securities premium 350		
	Less: Adjustment for premium paid on buy back (300)	50	
	Profit & Loss A/c 340		
	Add: Profit on sale of investment 2		
	Less: Transfer to CRR (70)	<u>272</u>	1,322
3.	Tangible assets		
	Machinery	3600	
	Furniture	<u>450</u>	4,050

## **Working Note:**

## Cash at bank after buy-back

	₹ in lakhs
Cash balance as on 1st April, 2015	1,500
Add: Sale of investments	<u>150</u>
	1,650
Less: Payment for buy back of shares	<u>(900)</u>
	<u>750</u>

## 7. (i) Calculation of liability of each underwriter (in shares and in amount)

## (Number of shares)

	Α	В	С	Total
Gross Liability	50,000	50,000	50,000	1,50,000
Less: Marked applications				
(excluding firm underwriting)	(24,600)	(20,000)	(15,000)	(59,600)
Balance	25,400	30,000	35,000	90,400

Less: Unmarked applications				
including firm underwriting	(28,800)	(28,800)	(28,800)	(86,400)
Net Liability	(3,400)	1,200	6,200	4,000
Less: Surplus of A allocated to B and C	3,400	(1,200)	(2,200)	-
	-	-	4,000	4,000
Add: Firm underwriting	25,000	20,000	20,000	65,000
Total Liability in shares	25,000	20,000	24,000	69,000
Total liability in amount @ ₹ 10	2,50,000	2,00,000	2,40,000	6,90,000

## (ii) **Commission due** = $50,000 \times 710 \times 5\% = 725,000$ each

## (ii) Calculation of amount payable to or due from underwriters

	А	В	С	Total
Total Liability in amount	2,50,000	2,00,000	2,40,000	6,90,000
Less: Underwriting Commission payable @ 5% on amount underwritten	(25,000)	(25,000)	(25,000)	(75,000)
	2,25,000	1,75,000	2,15,000	6,15,000
Amount already paid @ ₹ 5	(1,25,000)	(1,00,000)	(1,00,000)	(3,25,000)
Net amount payable (in ₹)	1,00,000	75,000	1,15,000	2,90,000

## 8. Journal of Alia Ltd.

			(₹)	(₹)
1	Sundry Assets A/c	Dr.	5,00,000	
	Goodwill [Balancing Figure]	Dr.	1,20,000	
	To Creditors			70,000
	To Bharat & Co.			5,50,000
	(Being the purchase of Business from Bharat & Co.)			
2	Bharat & Co.	Dr.	5,50,000	
	Loss on Issue of Debentures A/c	Dr.	25,000	
	To 12% Debentures A/c			5,00,000
	To Securities Premium A/c			50,000
	To Premium on Redemption of Debenture A/c			25,000
	(Being the issue of 5000, 12% Debentures at a premium of 10% and repayable at a premium of 5%)			

4	Profit & Loss A/c	Dr.	1,25,000	
	To Debenture Redemption Reserve A/c			1,25,000
	(Being the creation of DRR @ 25% of the value of debentures issued) $$			
5	Debenture Redemption Reserve Investments A/c	Dr.	75,000	
	To Bank A/c			75,000
	(Being the DRR Investments made equal to 15% of the value of debentures)			
6	Bank A/c	Dr.	75,000	
	To Debenture Redemption Reserve Investments A/c			75,000
	(Being the DRR investments realized)			
7	12% Debentures A/c	Dr.	5,00,000	
	Premium on Redemption of Debentures A/c	Dr.	25,000	
	To Debentureholders A/c			5,25,000
	(Being the amount due on redemption)			
8	Debentureholders A/c	Dr.	5,25,000	
	To Bank A/C			5,25,000
	(Being the payment made to Debentureholders)			
9	Debenture Redemption Reserve A/c	Dr.	1,25,000	
	To General Reserve			1,25,000
	(Being the transfer of DRR to General Reserve)			

# 9. (i) Calculation of the number of equity shares and preference shares to be allotted by Careful Ltd. in discharge of purchase consideration

Calculation of purchase consideration:	₹
Agreed value of assets taken over:	
Bills receivable	15,000
Freehold premises	4,00,000
Furniture & fittings	80,000
Machinery	1,60,000
Inventory	<u>3,45,000</u>
	10,00,000

## Discharge of purchase consideration:

1. Amount paid by allotment of 13% preference shares

= ₹ 10,00,000 × 
$$\frac{1}{4}$$

Number of 13% preference shares of ₹ 100 each

$$=$$
  $\frac{2,50,000}{100}$  = 2,500 preference shares

2. Amount paid by allotment of equity shares

Paid up value of one equity share = ₹ 8 each

Hence, the number of equity shares allotted

$$=\frac{₹7,50,000}{₹8}$$
=93,750 equity shares

#### (ii) Ledger accounts in the books of Reckless Ltd.

#### **Realisation Account**

		₹			₹
То	Freehold Premises	2,20,000	Ву	Creditors	1,13,000
То	Machinery	1,77,000	Ву	Acceptances	20,000
То	Furniture & Fittings	90,800	Ву	Provision for tax	1,10,000
То	Inventory	3,87,400	Ву	Provision for doubtful debts	4,000
То	Sundry Debtors	80,000	Ву	Careful Ltd.	10,00,000
То	Bills Receivable	15,000	Ву	Cash/Bank:	
То	Cash/ Bank:			Sundry Debtors	79,500
	Acceptances	19,000			
	Provision for tax	1,11,600			
	Creditors	1,03,700			
То	Cash/Bank:				
	Liquidation expenses	4,000			
То	Profit	<u>1,18,000</u>			
		13,26,500			13,26,500

#### **Cash and Bank Account**

		₹			₹
То	Balance b/d (cash at bank)	1,56,500	Ву	Realisation A/c (Acceptances)	19,000
То	Cash in hand	2,300	Ву	Provision for tax	1,11,600
То	Realisation A/c	79,500	Ву	Realisation (Expenses)	4,000
			Ву	Realisation A/c [Creditors(bal fig.)]	<u>1,03,700</u>
		2,38,300			2,38,300

## **Equity Shareholders Account**

		₹			₹
То	13% Cumulative	2,50,000	Ву	Equity Share Capital	6,00,000
	preference shares in		Ву	Pre-incorporation profit	21,000
	Careful Ltd.		Ву	Contingency reserve	1,35,000
То	Equity Shares in	7,50,000	Ву	Profit & Loss Account	1,26,000
	Careful Ltd.		Ву	Realisation Account	<u>1,18,000</u>
		10,00,000			10,00,000

## Careful Ltd. Account

		₹			₹
То	Realisation Account	10,00,000	Ву	13% Cumulative preference shares in Careful Ltd.	2,50,000
			Ву	Equity shares in Careful Ltd.	<u>7,50,000</u>
		10,00,000			10,00,000

## 10. Journal Entries

		₹	₹
Bank A/c	Dr.	10,00,000	
To Equity share capital A/c			10,00,000
(Being money on final call received)			
Equity share capital (₹ 50) A/c	Dr.	75,00,000	
To Equity share capital (₹ 40) A/c			60,00,000
To Capital Reduction A/c			15,00,000
(Being conversion of equity share capital of ₹ 50 each into ₹ 40 each as per reconstruction scheme)			

Bank A/c	Dr.	12,50,000	
To Equity Share Capital A/c			12,50,000
(Being new shares allotted at ₹ 40 each)			
Trade payables A/c	Dr.	12,40,000	
To Equity share capital A/c			7,50,000
To Bank A/c (4,90,000 x 70%)			3,43,000
To Capital Reduction A/c			1,47,000
(Being payment made to creditors in shares extent of 70% as per reconstruction scheme)	or cash to the		
8% Debentures A/c	Dr.	3,00,000	
12% Debentures A/c	Dr.	4,00,000	
To A A/c			7,00,000
(Being cancellation of 8% and 12% debenture	es of A)		
A A/c	Dr.	8,00,000	
To 15% Debentures A/c			6,00,000
To Capital Reduction A/c			2,00,000
(Being issuance of new 15% debentures transferred to capital reduction accoureconstruction scheme)			
Bank A/c	Dr.	1,00,000	
To A A/c			1,00,000
(Being new debentures subscribed by A)			
8% Debentures A/c	Dr.	1,00,000	
12% Debentures A/c	Dr.	2,00,000	
To B A/c			3,00,000
(Being cancellation of 8% and 12% debenture	es of B)		
B A/c	Dr.	3,00,000	
To 15% Debentures A/c			2,50,000
To Capital Reduction A/c			50,000
(Being issuance of new 15% debentures transferred to capital reduction accoureconstruction scheme)			
Land and Building	Dr.	0.44.005	
(51,84,000 – 42,70,000)		9,14,000	

Inventories	Dr.	30,000	
To Capital Reduction A/c			9,44,000
(Being value of assets appreciated)			
Outstanding expenses A/c	Dr.	10,60,000	
To Bank A/c			10,60,000
(Being outstanding expenses paid in cash)			
Capital Reduction A/c	Dr.	33,41,000	
To Machinery A/c			1,30,000
To Computers A/c			1,20,000
To Trade receivables A/c			1,09,000
To Profit and Loss A/c			29,82,000
(Being amount of Capital Reduction utilized in writing A/c (Dr.) balance and downfall in value of other ass			
Capital Reserve A/c	Dr.	5,00,000	
To Capital Reduction A/c			5,00,000
(Being debit balance of capital reduction account against capital reserve)			

## Balance Sheet of Xylem Ltd. (as reduced) as on 31.3.2015

Pa	Particulars		Notes	₹	
		Equity and Liabilities			
1		Shareholders' funds			
	а	Share capital		1	80,00,000
2		Non-current liabilities			
	а	Long-term borrowings		2	<u>8,50,000</u>
			Total		88,50,000
		Assets			
1		Non-current assets			
	а	Fixed assets			
		Tangible assets		3	63,04,000
2		Current assets			
	а	Inventories			3,50,000
	b	Trade receivables			9,81,000
	С	Cash and cash equivalents			<u>12,15,000</u>
			Total		<u>88,50,000</u>

### Notes to accounts

			₹
1.	Share Capital		
	2,00,000 Equity shares of ₹ 40		80,00,000
2.	Long-term borrowings		
	Secured		
	15% Debentures (assumed to be secured)		8,50,000
3.	Tangible assets		
	Land & Building	51,84,000	
	Machinery	7,20,000	
	Computers	4,00,000	63,04,000

### **Working Notes:**

### 1. Cash at Bank Account

	Particulars	₹		Particulars	₹
То	Balance b/d	2,68,000	Ву	Trade Creditors A/c	3,43,000
То	Equity Share capital A/c	10,00,000	Ву	Outstanding expenses A/c	10,60,000
То	Equity Share Capital A/c	12,50,000	Ву	Balance c/d (bal. fig.)	12,15,000
То	A A/c	1,00,000			
		<u>26,18,000</u>			<u>26,18,000</u>

### 2. Capital Reduction Account

Particulars	₹		Particulars	₹
To Machinery A/c	1,30,000	Ву	Equity Share Capital A/c	15,00,000
To Computers A/c	1,20,000	Ву	Trade payables A/c	1,47,000
To Trade receivables A/c	1,09,000	Ву	A A/c	2,00,000
To Profit and Loss A/c	29,82,000	Ву	B A/c	50,000
		Ву	Land & Building	9,14,000
		Ву	Inventories	30,000
		Ву	Capital Reserve A/c	5,00,000
	<u>33,41,000</u>			<u>33,41,000</u>

### 11. Liquidator's Final Statement of Account

Receipts	₹	Payments	₹
Assets realized	3,80,400	Liquidation Expenses	1,000
Call on contributories: 2,000	20,000	Liquidator's Remuneration	400
Equity Shares @ ₹ 10 per share		Unsecured Creditors	99,000
(W.N.)		Preference Share holders	3,00,000
	4,00,400		4,00,400

### **Working Notes:**

(i) Calculation of Shortage of funds	₹
Total Amount Available	3,80,400
Less: liquidation Expenses	(1,000)
Balance	3,79,400
Less: Unsecured Creditors	<u>(99,000)</u>
Balance	2,80,400
Less: Pref. Shareholders	(3,00,000)
Shortage of Funds	<u>19,600</u>

(ii) Calculation of funds required to meet shortage and commission payable on Calls to be made (to be called from equity shareholders)

Shortage of funds × 
$$\frac{100}{100 - \text{Rate of Commission}}$$
 = ₹ 19,600 ×  $\frac{100}{100 - 2}$  = ₹ 20,000

- (iii) Uncalled Capital @ ₹ 25 on 2,000 shares = ₹ 50,000
- (iv) Amount of Calls to be made (least of funds required and uncalled capital) i.e.  $\stackrel{?}{=}$  20,000
- (v) Commission on Call = ₹ 20,000 x 2/100 = ₹ 400

### 12. (a) Net Premium earned

		₹
Premium from direct business received	17,60,000	
Add: Receivable as 31.03.2015	75,400	
Less: Receivable as on 01.04.2014	(87,800)	17,47,600
Add: Premium on re-insurance accepted	1,50,400	

Add: Receivable as on 31.03.2015	6,400	
Less: Receivable as on 01.04.2014	<u>(7,200)</u>	1,49,600
		18,97,200
Less: Premium on re-insurance ceded	1,21,800	
Add: Payable as on 31.03.2015	3,600	
Less: Payable as on 01.04.2014	(5,400)	
		(1,20,000)
Net Premium earned		<u>17,77,200</u>

## (b) Modern Insurance Company (Abstract showing the amount of claims) Net Claims incurred

		₹			
Claims paid on direct business (7,06,000 + 7,600 + 8,400)					
Add: Re-insurance	1,64,000				
Add: Outstanding as on 31.3.2015	17,400				
Less: Outstanding as on 1.4.2014	(11,600)	<u>1,69,800</u>			
		8,91,800			
Less: Claims received from re-insurance	64,000				
Add: Outstanding as on 31.3.2015	28,400				
Less: Outstanding as on 1.4.2014	(17,000)	<u>(75,400)</u>			
		8,16,400			
Add: Outstanding direct claims at the end of the year					
		9,91,400			
Less: Outstanding claims at the beginning of the year					
Net claims incurred		<u>8,26,800</u>			

### 13. Statement showing the amount of provisions on Assets:

(₹ in lakh						
Assets	Amount	% of	Provision			
		provision				
Standard	5,000	0.40	20			
Sub-standard:						
Secured	1,000	15	150			
Other unsecured	1,000	25	250			
Unsecured infrastructure	1500	20	300			

Doubtful:			
up to one year	500	25	125
up to 3 years	600	40	240
For more than three years	300	100	300
Doubtful unsecured	1,600	100	1,600
Loss	100	100	<u>100</u>
Required provision			3,085

# 14. Trading and Profit and Loss Account for the year ended on 31st Match, 2015

Particulars	A (₹)	B (₹)	C (₹)	Particulars	A (₹)	B (₹)	C (₹)
To Opening Stock	8,500	5,700	1,200	By Sales less Sales returns	50,000	30,000	20,000
To Purchases	22,000	17,000	8,000	By Closing Stock	3,500	2,000	1,500
To Freight & carriage	1,400	800	200				
To wages	800	700	200				
To Gross profit	20,800	7,800	<u>11,900</u>				
	<u>53,500</u>	32,000	<u>21,500</u>		<u>53,500</u>	32,000	<u>21,500</u>
To Salaries	2,250	1,350	900	By Gross Profit	20,800	7,800	11,900
To Power & Water	600	360	240	By Net Loss	-	465	-
To Telephone Charges	1,050	630	420				
To Bad Debts	375	225	150				
To Rent & Taxes	3,000	1,800	1,200				
To Insurance	750	450	300				
To Printing & Stationery	1,000	600	400				
To Advertising	1,750	1,050	700				
To Depreciation (2,000 +4,000)	3,000	1,800	1,200				
To Net Profit	7,025		6,390				
	20,800	<u>8,265</u>	<u>11,900</u>		<u>20,800</u>	<u>8,265</u>	<u>11,900</u>

### Balance Sheet as at 31.03.2015

Liabilitie	es		₹		Assets	į	₹
Capital	A/c		40,000		Furniture & Fixtures		4,600
Add:	Net	Profit			Plant & Machinery	20,000	

(₹ 7,025 + ₹ 6,390)	<u>13,415</u>				
	53,415		Less: Depreciation	2,000	18,000
Less: Net loss in Dept B	<u>465</u>		Motor Vehicles	40,000	
	52,950		Less: Depreciation	4,000	36,000
Less: Drawings	1,500	51,450	Sundry Debtors		12,200
Sundry Creditors		15,000	Cash in hand		850
Bank Overdraft		12,000	Closing Stock		7,000
Wages Outstanding		200			
		<u>78,650</u>			<u>78,650</u>

### 15. Step 1: Calculation of Deficiency

### Branch stock account (at invoice price)

Particulars	₹	Particulars	₹
To Opening Stock (₹ 74,736 + 1/3 of ₹ 74,736)	99,648	By Sales	3,61,280
To Goods sent to Branch A/c (₹ 2,89,680 + 1/3 of ₹ 2,89,680)	3,86,240	By Closing Stock	1,23,328
		By Deficiency at sale price [Balancing figure]	1,280
	<u>4,85,888</u>		<u>4,85,888</u>

Step 2: Calculation of Net Profit before Commission

### **Branch account**

Particulars	₹	Particulars	₹
To Opening [₹74,736 + 1/3 of ₹ 74,736]	99,648	By Sales	3,61,280
To Gross sent to Branch A/c (₹ 2,89,680 + 1/3 of ₹ 2,89,680)	3,86,240	By Closing Stock	1,23,328
To Expenses	49,120	By Stock Reserve A/c	24,912
To Stock Reserve A/c (₹ 1,23,328 x 25/100]	30,832	By goods sent to Branch A/c	96,560
To Net Profit – subject to	40.040		
manager's commission	40,240		
	<u>6,06,080</u>		<u>6,06,080</u>

Step 3: Calculation of Commission still due to manager

		₹
Α	Calculation at 10% profit before charging his commission	
	[₹ 40,240 x 10/100]	4,024
В	Less: 25% of cost of deficiency in stock (25% of (75% of ₹ 1,280)	(240)
С	Commission for the year [A-B]	3,784
D	Less : Paid on account	(2,400)
Е	Balance due (C-D)	1,384

16. Trial Balance (in Rupees) of New York (USA) Branch as on 31st March, 2015

Particulars	Dr. US \$	Cr. US\$	Conversion Rate	Dr. (₹)	Cr. (₹)
Fixed Assets	46,080		43	19,81,440	
Depreciation on Fixed Assets	5,120		43	2,20,160	
Opening Stock	22,400		47	10,52,800	
Purchases	96,000		45	43,20,000	
Sales		1,66,400	45		74,88,000
Goods sent from H.O	32,000			15,80,000	
Carriage inward	400		45	18,000	
Branch Expenses (4,800 + 400)	5,200		45	2,34,000	
Outstanding Expenses		400	50		20,000
Head Office A/c		45,600			20,50,000
Trade Debtors	9,600		50	4,80,000	
Trade Creditors		6,800	50		3,40,000
Cash & Bank	2,400		50	1,20,000	
Exchange Gain (bal.fig.)					1,08,400
	2,19,200	2,19,200		1,00,06,400	1,00,06,400

Exchange Difference of ₹ 1,08,400 will be credited to the Statement of Profit & Loss.

- **17. (a)** For the information given, the following will be recommended treatment with reference to the provisions of AS 4: Contingencies and Events Occurring After the Balance Sheet Date.
  - (1) The event is a non-adjusting event since it occurred after the year-end and does not relate to the conditions existing at the year-end. However, the event would appear to be of such significance as to require a disclosure in the report of the approving authority to enable users of the financial statements to make proper evaluation and decision, hence, such disclosure is recommended.
  - (2) AS 4 defines events occurring after the balance sheet date as those significant event- both favorable and unfavorable that occur between the balance sheet date and the date on which the financial statements are approved by the approving authority. Accordingly, negotiation for acquisitions of two manufacturing units which started on 30<sup>th</sup> April, 2015 should be disclosed in the Board's Report. No adjustments of assets and liabilities are required, as the negotiation does not affect the determination and the conditions of the amounts stated in the financial statements for the year ended 31<sup>st</sup> March, 2015.
  - (3) The foreign exchange loss due to changes in exchange rates during the period 1st April 2015 and 1st June 2015, is a non adjusting event since it does not relate to the conditions existing at the balance sheet date. The amount of loss appears material and may be of such significance that requires disclosure in the report of the approving authority.
  - (b) As per AS 11 "The Effects of Changes in Foreign Exchange Rates", exchange differences arising on the settlement of monetary items or on reporting an enterprise's monetary items at rates different from those at which they were initially recorded during the period, or reported in previous financial statements, should be recognized as income or as expenses in the period in which they arise.
    - Accordingly, exchange difference on trade receivables amounting ₹ 23,077 {₹ 5,23,077(US \$ 8547\* x ₹ 61.20) less ₹ 5,00,000} should be charged to profit & Loss account.
- **18. (a)** As per AS 12 "Accounting for Government Grants", where the government grants are in the nature of promoters' contribution, *i.e.*, they are given with reference to the total investment in an undertaking or by way of contribution towards its total capital outlay (for example, Central Investment Subsidy Scheme) and no repayment is ordinarily expected in respect thereof, the grants are treated as capital reserve which can be neither distributed as dividend nor considered as deferred income.

<sup>\*</sup>US \$ 8,547 = 5,00,000/58.50

The subsidy received by Samrat Ltd. for setting up its business in a designated backward area will be treated as grant by the government in the nature of promoter's contribution as the grant is given with reference to the total investment in an undertaking i.e. subsidy is 25% of the eligible investment and also no repayment is apparently expected in respect thereof.

Since the subsidy received is neither in relation to specific fixed assets nor in relation to revenue. Thus, the company cannot recognize the said subsidy as income in its financial statements in the given case. It should be recognized as capital reserve which can be neither distributed as dividend nor considered as deferred income.

(b) (a) Interest for the period 2014-15

```
= US $ 10 lakhs x 4% × ₹ 62 per US$ = ₹ 24.80 lakhs
```

(b) Increase in the liability towards the principal amount

(c) Interest that would have resulted if the loan was taken in Indian currency

(d) Difference between interest on local currency borrowing and foreign currency borrowing = ₹ 58.80 lakhs - ₹ 24.80 lakhs = ₹ 34 lakhs.

Therefore, out of ₹ 60 lakhs increase in the liability towards principal amount, only ₹ 34 lakhs will be considered as the borrowing cost. Thus, total borrowing cost would be ₹ 58.80 lakhs being the aggregate of interest of ₹ 24.80 lakhs on foreign currency borrowings plus the exchange difference to the extent of difference between interest on local currency borrowing and interest on foreign currency borrowing of ₹ 34 lakhs.

Hence,  $\neq$  58.80 lakhs would be considered as the borrowing cost to be accounted for as per AS 16 and the remaining  $\neq$  26 lakhs (60 - 34) would be considered as the exchange difference to be accounted for as per AS 11.

#### 19. (a) Determination of Nature of Lease

Present value of unguaranteed residual value at the end of 3rd year

=₹ 50.000 x 0.7513

**=** ₹ 37,565

Present value of lease payments = ₹ 5,00,000 - ₹ 37,565

**=** ₹ 4,62,435

The percentage of present value of lease payments to fair value of the equipment is  $( \not\in 4,62,435/ \not\in 5,00,000) \times 100 = 92.487\%.$ 

Since, it substantially covers the major portion of the lease payments, the lease constitutes a finance lease.

### (b) Computation of theoretical ex-rights fair value per share

Fair value of all outstanding shares immediately prior to exercise of rights + Total amount received from exercise of rights

Number of shares outstanding prior to exercise + number of shares issued in the exercise

Theoretical ex-rights fair value per share = ₹ 20.00

### Computation of adjustment factor

### Computation of earnings per share

	Year 2013-14	Year 2014-15
EPS for the year 2013-14 as originally reported: (₹ 11,00,000/5,00,000 shares)	₹ 2.20	
EPS for the year 2013-14 restated for rights issue: [₹ 11,00,000/ (5,00,000 shares x 1.05)]	₹ 2.10	
EPS for the year 2014-15 including effects of rights issue ₹ 15,00,000 (5,00,000 x 1.05 x 2/12)+ (6,00,000 x 10/12)		₹ 2.55

20. (a) As per AS 26 'Intangible Assets', the depreciable amount of an intangible asset should be allocated on a systematic basis over its useful life. Also there is a rebuttable presumption that the useful life of an intangible asset will not exceed 10 years from the date it is available for use. The amortization should commence when the asset is available for use. As per para 78 of AS 26, if there has been a significant change in the expected pattern of economic benefits from the asset, the amortisation method should be changed to reflect the changed pattern.

The company has been following a policy of amortization over a period of 8 years. As on 01-4-2015, 5 years have passed and the carrying amount stands at ₹ 30 lakhs. If the same treatment were to be continued, this would have been amortized over the next 3 years. But the revised estimate of remaining useful life would extend the period by another 5 years to amortize the carrying amount, the Company would be advised to amortise the carrying value over the next 5 years. Thus after revision in estimated useful life, the amount of ₹ 30 lacs would be amortised over next 5 years.

- (b) (i) AS 29 "Provisions, Contingent Liabilities and Contingent Assets" provides that when an enterprise has a present obligation, as a result of past events, that probably requires an outflow of resources and a reliable estimate can be made of the amount of obligation, a provision should be recognised. Sun Ltd. has the obligation to deliver the goods within the scheduled time as per the contract. It is probable that Sun Ltd. will fail to deliver the goods within the schedule and it is also possible to estimate the amount of compensation. Therefore, Sun Ltd. should provide for the contingency amounting ₹ 1.5 crores as per AS 29.
  - (ii) Provision should not be measured as the excess of compensation to be paid over the profit. The goods were not manufactured before 31<sup>st</sup> March, 2014 and no profit had accrued for the financial year 2013-2014. Therefore, provision should be made.

#### PAPER – 6: AUDITING AND ASSURANCE

### PART – I: ACADEMIC UPDATE

(Legislative Amendments / Notifications / Circulars / Rules / Guidelines issued by Regulating Authority)

- 1. Ceiling on Number of Company Audits: As per section 141(3)(g) of the Companies Act, 2013, a person shall not be eligible for appointment as an auditor if he is in full time employment elsewhere or a person or a partner of a firm holding appointment as its auditor, if such person or partner is at the date of such appointment or reappointment holding appointment as auditor of more than twenty companies, other than one person companies, dormant companies, small companies and private companies having paid-up share capital less than ₹ 100 crore.
- 2. Guidance Note on Reporting under Section 143(3)(f) and (h) of the Companies Act, 2013:

#### Introduction

- Section 143 of the Companies Act, 2013 (hereinafter referred to as the "Act") deals with the powers and duties of the auditors of companies. Section 143(1) of the Act requires the auditor to make certain specific enquiries during the course of the audit. Section 143(2) of the Act requires the auditor to, inter alia, give his report to the members of company on the accounts examined by him, and on every financial statement which are laid before the company in a general meeting. Sub-section (3) of section 143 of the Act also lays down certain matters required to be reported upon by the auditor in his report. Sub-section (3) of section 143 of Act provides as follows:
  - "(3) The auditor's report shall also state -
    - (a) whether he has sought and obtained all the information and explanations which to the best of his knowledge and belief were necessary for the purpose of his audit and if not, the details thereof and the effect of such information on the financial statements:
    - (b) whether, in his opinion, proper books of account as required by law have been kept by the company so far as appears from his examination of those books and proper returns adequate for the purposes of his audit have been received from branches not visited by him;
    - (c) whether the report on the accounts of any branch office of the company audited under sub-section (8) by a person other than the company's auditor has been sent to him under the proviso to that sub-section and the manner in which he has dealt with it in preparing his report;

- (d) whether the company's balance sheet and profit and loss account dealt with in the report are in agreement with the books of account and returns;
- (e) whether, in his opinion, the financial statements comply with the accounting standards;
- (f) the observations or comments of the auditors on financial transactions or matters which have any adverse effect on the functioning of the company;
- (g) whether any director is disqualified from being appointed as a director under sub-section (2) of section 164;
- (h) any qualification, reservation or adverse remark relating to the maintenance of accounts and other matters connected therewith:
- (i) whether the company has adequate internal financial controls system in place and the operating effectiveness of such controls;
- such other matters as may be prescribed.<sup>1</sup>

### Scope of the Guidance Note

This Guidance Note is intended to assist the auditors in discharging their duties in respect of clauses (f) and (h) of sub-section (3) of section 143 of the Act. Clause (f) of the said sub-section creates a requirement for the auditor to consider observations or comments of the auditor on financial transactions or matters which have an adverse effect on the functioning of the company. Such observations or comments would ordinarily lead to the modification of or an emphasis of matter in the auditor's report on financial statements. It may be noted that the matters that lead to modification in the auditor's report on financial statements are matters that give rise to a qualified opinion, adverse opinion or a disclaimer of opinion<sup>2</sup>. Further, matters that lead to an emphasis of matter paragraphs are matters appropriately presented or disclosed in the financial statements that, in the auditor's judgement, are of such importance that they are fundamental to the users' understanding of the financial statements<sup>3</sup>. If the matter leading to the modification of the auditor's opinion or an emphasis of matter in the auditor's report on financial statements is likely to have an adverse effect on the functioning of the company, the auditor is required to report such matter. Under clause (h) of sub-section (3) of section 143 of the Act, the auditor is required to state whether any matter leading to a qualification, reservation or adverse remark, that is, effectively the modification of the auditor's

<sup>&</sup>lt;sup>1</sup> Refer Rule 11 of Companies (Audit and Auditors) Rules, 2014.

<sup>&</sup>lt;sup>2</sup> Reference may be made to Standard on Auditing (SA) 705, "Modifications to the Opinion in the Independent Auditor's Report."

<sup>&</sup>lt;sup>3</sup> Reference may be made to paragraphs 6 and 7 of Standard on Auditing (SA) 706, "Emphasis of Matter Paragraphs and Other Matter Paragraphs in the Independent Auditor's Report."

report on financial statements, relates to the maintenance of accounts and other matters connected therewith.

### Reporting under Section 143(3)(f) of the Act

- 3. The relevant extracts of section 143(3)(f) of the Act are reproduced below:
  - "(3). The auditor's report shall also state -

.....

- (f) the observations or comments of the auditors on financial transactions or matters which have any adverse effect on the functioning of the company;"
- Clause (f) requires the auditor to report "the observations or comments of the auditors on financial transactions or matters which have any adverse effect on the functioning of the company". An auditor's report may contain matters leading to modifications to the auditor's opinion or emphasis of matter in the auditor's report on the financial statements. Such matters may be related to issues which may have an adverse effect on the functioning of the company. The words "observations" or "comments" as appearing in clause (f) of section 143(3) are construed to have the same meaning as referring to "emphasis of matter paragraphs, situations leading to modification in the auditor's report. Accordingly, the auditor should have made an "observation" or "comment" in the auditor's report in order to determine the need to report under clause (f) of section 143(3). Therefore, only such "observations" or "comments" of the auditors on financial transactions or matters that have been made by the auditor in the auditor's report which have an adverse effect on the functioning of the company are required to be reported under this clause. For the sake of clarity, it may be noted that neither the auditor's observations nor the comments made by him have any adverse effect on the functioning of a company. These observations or comments made by the auditor might contain matters which might have an adverse effect on the functioning of a company.
- 5. The Act does not specify the meaning of the phrase 'adverse effect on the functioning of the company'. The expression should not be interpreted to mean that any event affecting the functioning of the company, observed by the auditor, should be reported upon even though it does not affect the financial statements, e.g., revocation of a license to manufacture one out of the many products during the year to which the financial statements relate, where such product that does not have any material contribution to the revenues of the company, etc. Such an interpretation would not only be beyond the scope of the audit of financial statements of the company but would also not be in accordance with the objective and concept of audit stipulated under the Act. A more logical and harmonious interpretation is that this reporting requirement does not intend to change the basic objective and the

- concept of audit of financial statements of a company, which is to examine the financial statements with a view to express an opinion thereon.
- The scope of the audit and auditor's role remains as contemplated under the Standards on Auditing (SAs) and other relevant pronouncements issued by the Institute of Chartered Accountants of India as well as laid down in the Act. i.e., to lend credibility to the financial statements by reporting whether they reflect a true and fair view. SA 200, Objective of the Independent Auditor and the Conduct of an Audit in Accordance with Standards of Auditing, specifies that the purpose of an audit is to enhance the degree of confidence of intended users in the financial statements. This is achieved by the expression of an opinion by the auditor on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework. An audit conducted in accordance with SAs and relevant ethical requirements enables the auditor to form the opinion of the true and fair view of the financial position and operating result of an enterprise. The auditor's opinion, therefore, does not assure, for example, the future viability of the entity nor the efficiency or effectiveness with which management has conducted the affairs of the entity. SAs require auditor to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error. Reasonable assurance is a high level of assurance. It is obtained when the auditor has obtained sufficient appropriate audit evidence to reduce audit risk (i.e., the risk that the auditor expresses an inappropriate opinion when the financial statements are materially misstated) to an acceptably low level. However, reasonable assurance is not an absolute level of assurance because there are inherent limitations of an audit which result in most of the audit evidence on which the auditor draws conclusions and bases the auditor's opinion being persuasive rather than conclusive. At this juncture, it may also be noted that SA 200 also clearly states that the concept of materiality is applied by the auditor both in planning and performing the audit, and in evaluating the effect of identified misstatements on the audit and of uncorrected misstatements, if any, on the financial statements.
- 7. There is no change in the objective and scope of an audit of financial statements because of inclusion of clause (f) in sub-section (3) of section 143 of the Act. The auditor expresses his opinion on the true and fair view presented by the financial statements through his report which may be modified in certain circumstances. However, the auditor would now have to evaluate the subject matters leading to modification of the audit report or emphasis of matter in the auditor's report to make judgement as to which of them has an adverse effect on the functioning of the company within the overall context of audit of financial statements of the company. Only such matters which, in the opinion of the auditor, have an adverse effect on the functioning of the company should be reported under this clause. Conversely, such qualifications or adverse opinions or disclaimer of opinion or emphasis of

matters of the auditor, which do not deal with matters that have adverse effect on the functioning of the company, need not be reported under this clause.

- 8. As far as inquiries under section 143(1) are concerned, the auditor is not required to report on these matters unless he has any comments to make on any of the items referred to therein. If the auditor has any comments or observations on any of the matters stated in section 143(1), the auditor should consider such comments or observations when reporting under this clause if they contain matters that may have any adverse effect on the functioning of the company.
- 9. Auditor's will need to apply professional judgement in considering matters of emphasis that may have an adverse effect on the functioning of the company. Ordinarily matters that are pervasive in nature such as going concern or matters that will significantly impact the operations of the company due to its size and nature will need to be reported under clause (f) of sub-section (3) of section 143 of the Act. Examples of emphasis of matter which may have an adverse effect on the functioning of the company include situations where:
  - the going concern assumption is appropriate but there are several factors leading to a material uncertainty that may cast a significant doubt about the Company's ability to continue as a going concern; or
  - a material uncertainty regarding the outcome of a litigation wherein an unfavourable decision could result in a significant outflow of resources for the company, etc.

Examples of emphasis of matter which may not have an adverse effect on the functioning of the company include a situation where there is an emphasis of matter:

- on managerial remuneration which is subject to the approval of the Central Government;
- relating to accrual of a contractually receivable claim based on management estimate where the ultimate realisation could be different from the amount accrued;
- on frauds that have been dealt with in the financial statements of the company and would not have any continuing effect on the financial statements.
- 10. Another issue which arises is whether any observations or comments made by the auditor under clause (i) of section 143(3) in respect of the company's internal financial controls over financial reporting, which may have any adverse effect on the functioning of the company, should also be reported in terms of this clause. In this regard, it is noted that reporting under section 143(3)(i) is part of the auditor's report though it may be reported in an annexure to the auditor's report. Accordingly, if any observations or comments made by the auditor on the adequacy or operating effectiveness of internal financial controls over financial reporting contain such

matters, which, in his opinion, may have any adverse effect on the functioning of the company, should also be reported under clause (f) of section 143(3) even if such observation did not result in a modification to the audit opinion on the financial statements of the company. An example in this regard may be where an auditor reports that the company did not have an appropriate internal control system for inventory with regard to receipts, issue for production and physical verification.

### Reporting under Section 143(3)(h) of the Act

- 11. The relevant extracts of section 143(3)(h) of the Act are reproduced below:
  - "(3). The auditor's report shall also state -

(h) any qualification, reservation or adverse remark relating to the maintenance of accounts and other matters connected therewith:"

- 12. Clause (h) requires the auditor to report "any qualification, reservation or adverse remark" relating to the maintenance of accounts and other matters connected therewith. An auditor's report may contain matters leading to modifications in the auditor's report on financial statements. The matters that cause such modification may have a consequential effects or possible effects on the books of account maintained by the company and other matters connected therewith.
- 13. Section 128 of the Act, *inter alia*, states that every company shall prepare and keep its books of account and other relevant books and papers and financial statements that give a true and fair view of the state of affairs of the company. Section 129(1) of the Act, *inter alia*, states that the financial statements shall comply with the accounting standards notified under section 133 of the Act. Section 2(13) of the Act defines "books of account" to include records maintained in respect of—
  - (i) all sums of money received and expended by a company and matters in relation to which the receipts and expenditure take place;
  - (ii) all sales and purchases of goods and services by the company;
  - (iii) the assets and liabilities of the company; and
  - (iv) the items of cost as may be prescribed under section 148 in the case of a company which belongs to any class of companies specified under that section;

Clause (b) of section 143(3) requires the auditor to, *inter alia*, state whether, in his opinion, proper books of account as required by law have been kept by the company so far as appears from his examination of those books.

14. Matters to be reported under clause (h) of section 143(3) needs to be evaluated based on the financial statements prepared under the Act. This is also consistent with the other reporting responsibilities of the auditor on books of account and

- compliance with notified/specified accounting standards that are reported by him under section 143(3). Accordingly, reporting under this clause is determined based on the financial statements prepared i.e., as at the balance sheet date.
- 15. The words "qualification", "adverse remark" and "reservation" used in clause (h) of section 143(3) should be considered to be similar to the terms "qualified opinion", "adverse opinion" and "disclaimer of opinion", respectively, referred to in SA 705 "Modifications to the Opinion in the Independent Auditor's Report".
- 16. Accordingly, the auditor would need to report under clause (h) of section 143(3) any matter that causes a qualification, adverse remark or disclaimer of opinion on the financial statements since such matters will or possibly will have an effect on the books of account maintained by the company.
- 17. Further, reporting under clause (h) of section 143(3) will be required if the auditor makes any observation under clause (b) of section 143(3) relating to whether proper books of account as required by law have been kept by the company. For example, the auditor may have made an observation on maintenance of cost records under clause (b) of section 143(3) and this may not have had an effect on the financial statements of the company or the auditor's opinion on the financial statements.
- 18. As a corollary, reporting under clause (h) of section 143(3) will not be required if there are no modifications, i.e., no qualified, adverse or disclaimer of opinion, and there are no such observations under clause (b) of section 143(3) regarding books of account kept by the company.
- 19. Since clause (h) of section 143(3) requires the auditor to report under this clause only if the auditor has "any qualification, reservation or adverse remark", it is appropriate to conclude that a matter reported under emphasis of matter paragraph in the audit report need not be considered for reporting under this clause as an emphasis of matter is not in the nature of a qualification, reservation (disclaimer) or adverse remark.
- 20. Any material weakness in internal financial controls that is reported by the auditor under clause (i) of section 143(3) may not have an impact on the maintenance of books of account if such material weakness did not result in a modification to the opinion on the financial statements of the company. However, if the material weakness in internal financial controls resulted in a modification to the audit opinion on the financial statements, then such modification may be covered for reporting under clause (h) of section 143(3) as stated in paragraph 17 above.
- 21. The Appendix to this Guidance Note contains illustrations on matters that may give rise to reporting under section 143(3)(f) and/or section 143(3)(h) of the Companies Act. 2013.

Illustrative Matters Forming Basis For Modified Opinion Or Emphasis Of Matter Paragraph in the Auditor's Report and Requiring Reporting Under Section 143(3)(f) and/or Section 143(3)(h) of the Companies Act, 2013

#### **ILLUSTRATION 1**

### **Basis for Qualified Opinion**

The Company's inventories are carried in the Balance Sheet at  $\not\in$  XXX (*As at 31st March 20YY:*  $\not\in$  YYY). The Management has not stated the inventories at the lower of cost and net realisable value but has stated them solely at cost, which constitutes a departure from the Accounting Standard - 2 "Valuation of Inventories". The Company's records indicate that had the Management stated the inventories at the lower of cost and net realisable value, an amount of  $\not\in$  XXX (*As at 31st March 20YY:*  $\not\in$  YYY) would have been required to write the inventories down to their net realisable value. Accordingly, cost of sales would have been increased by  $\not\in$  XXX (*Previous year ended 31st March, 20YY:*  $\not\in$  YYY), and income tax, profit for the year and shareholders' funds would have been reduced by  $\not\in$  X,  $\not\in$  XX and  $\not\in$  XXX, respectively (*Previous year ended 31st March, 20YY:*  $\not\in$  Y,  $\not\in$  YY and  $\not\in$  YYY, respectively). This matter was also qualified in our report/ the report of the predecessor auditors on the financial statements for the year ended 31st March 20YY.

### **Qualified Opinion**

In our opinion and to the best of our information and according to the explanations given to us, except for the effects of the matter described in the Basis for Qualified Opinion paragraph above, the aforesaid standalone financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the state of affairs of the Company as at 31st March, 20XX, and its profit/loss and its cash flows for the year ended on that date.

.....

### Report on Other Legal and Regulatory Requirements

As required by Section 143 (3) of the Act, we report that:

<sup>&</sup>lt;sup>4</sup> Where applicable and only in such case, disclosure of previous year figures is required - Attention of the readers is drawn to the provisions of Standard on Auditing (SA) 710, *Comparative Information—Corresponding Figures And Comparative Financial Statements*.

(a)	of our knowledge and belief were necessary for the purposes of our audit;
(f)	The matter described in the Basis for Qualified Opinion paragraph above, in our opinion, may have an adverse effect on the functioning of the Company.
(h)	The qualification relating to the maintenance of accounts and other matters connected therewith are as stated in the Basis for Qualified Opinion paragraph

### ILLUSTRATION 2#

above."

### **Opinion**

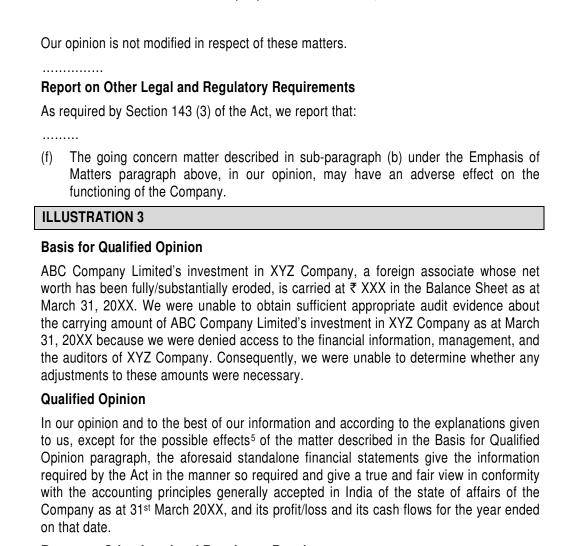
In our opinion and to the best of our information and according to the explanations given to us, the aforesaid standalone financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the state of affairs of the Company as at 31st March, 20XX, and its profit/loss and its cash flows for the year ended on that date.

### **Emphasis of Matters**

We draw attention to the following matters in the Notes to the financial statements:

- (a) Note X to the financial statements which, describes the uncertainty related to the outcome of the lawsuit filed against the Company by XYZ Company.
- (b) Note Y in the financial statements which indicates that the Company has accumulated losses and its net worth has been fully / substantially eroded, the Company has incurred a net loss/net cash loss during the current and previous year(s) and, the Company's current liabilities exceeded its current assets as at the balance sheet date. These conditions, along with other matters set forth in Note Y, indicate the existence of a material uncertainty that may cast significant doubt about the Company's ability to continue as a going concern. However, the financial statements of the Company have been prepared on a going concern basis for the reasons stated in the said Note.

In this case there is nothing reportable under sec 143(3)(h).



### Report on Other Legal and Regulatory Requirements

As r	equired by section 143 (3) of the Act, we report that:
(f)	The matter described in the Basis for Qualified Opinion paragraph above, in our opinion, may have an adverse effect on the functioning of the Company.

<sup>&</sup>lt;sup>5</sup> Note the use of words "possible effects" as the auditor was unable to obtain sufficient appropriate audit evidence.

(h) The qualification relating to the maintenance of accounts and other matters connected therewith are as stated in the Basis for Qualified Opinion paragraph above.

### **ILLUSTRATION 4**

### **Basis for Adverse Opinion**

The Company's financing arrangements expired and the amount outstanding was payable on March 31, 20XX. The Company has been unable to re-negotiate or obtain replacement financing and is considering filing for bankruptcy. These events indicate a material uncertainty that may cast significant doubt on the Company's ability to continue as a going concern and, therefore, it may be unable to realise its assets and discharge its liabilities in the normal course of business. The financial statements (and notes thereto) do not disclose this fact.

### **Adverse Opinion**

In our opinion, because of the omission of the information mentioned in the Basis for Adverse Opinion paragraph, the financial statements do not give the information required by the Companies Act, 2013 in the manner so required and also do not give a true and fair view in conformity with the accounting principles generally accepted in India of the state of affairs of the Company as at 31st March, 20XX, and its profit/loss and its cash flows for the year ended on that date.

### Report on Other Legal and Regulatory Requirements

As required by section 143 (3) of the Act, we report that:

.....

(f) The matter described in the Basis for Adverse Opinion paragraph above, in our opinion, may have an adverse effect on the functioning of the Company.

......

(h) The adverse remarks relating to the maintenance of accounts and other matters connected therewith are as stated in the Basis for Adverse Opinion paragraph above.

### **ILLUSTRATION 5**

### **Basis for Disclaimer of Opinion**

We were appointed as auditors of the Company after March 31, 20X1 and thus could not observe the counting of physical inventories at the beginning and end of the year. Accordingly, we were unable to satisfy ourselves by alternative means concerning the inventory quantities held at March 31, 20X0 and March 31, 20X1 which are stated in the Balance Sheet at ₹ XXX and ₹ XXX, respectively.

In addition, the introduction of a new computerised accounts receivable system in September 20X0 resulted in numerous errors in accounts receivable. As of the date of our audit report, Management was still in the process of rectifying the system deficiencies and correcting the errors. We were unable to confirm or verify by alternative means accounts receivable included in the Balance Sheet at a total amount of ₹ XXX as at March 31, 20X1.

As a result of these matters, we were unable to determine whether any adjustments might have been found necessary in respect of recorded or unrecorded inventories and accounts receivable in the Balance Sheet, and the corresponding elements making up the Statement of Profit and Loss and Cash Flow Statement.

### Opinion

Because of the significance of the matters described in the Basis for Disclaimer of Opinion paragraph, we have not been able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion. Accordingly, we do not express an opinion on the financial statements.

### Report on Other Legal and Regulatory Requirements

Ası	required by section 143 (3) of the Act, we report that:
(f)	The matter described in the Basis for Disclaimer of Opinion paragraph above, in ou opinion, may have an adverse effect on the functioning of the Company.
<i>(</i> 1.)	

(h) The reservation relating to the maintenance of accounts and other matters connected therewith are as stated in the Basis for Disclaimer of Opinion paragraph above.

#### PART - II: QUESTIONS AND ANSWERS

#### QUESTIONS

- 1. State with reason (in short) whether the following statements are true or false.
  - (i) SA-700 deals with modification to the opinion in the Independent Auditor's Report.
  - (ii) Guidance Notes are mandatory in nature.
  - (iii) As per SA-240, misstatements in the financial statements can arise from fraud only.
  - (iv) Misappropriation of assets can be accomplished by embezzling receipts only.
  - (v) The primary responsibility for the prevention and detection of fraud rests with the auditor.

- (vi) Inspection consists of looking at a process or procedure being performed by others.
- (vii) Audit note book constitutes the basic record for the auditor in respect of audit carried out by him.
- (viii) Purchase invoice is an example of internal evidence.
- (ix) The audit engagement letter is sent by the client to auditor.
- (x) Sufficiency is the measure of the quality of audit evidence.
- (xi) Risk of material misstatement may be defined as the risk that the financial statements are materially misstated subsequent to audit.
- (xii) Substantive procedure may be defined as an audit procedure designed to evaluate the operating effectiveness of controls in preventing, or detecting and correcting material misstatements at the assertion level.

### Nature of Auditing

- 2. (a) "Doing a statutory audit is full of risk'. Narrate the factors which cause the risk.
  - (b) "The auditors should consider the effect of subsequent events on the financial statements and on auditor's report". Comment with reference to SA 560.
- 3. (a) "Discipline of statistics and mathematics has come guite close to auditing" Explain.
  - (b) "The process of auditing is such that it suffers from certain limitations" Discuss.
- 4. Discuss the following:
  - (a) With reference of SA 250 give some examples or matters indicating to the auditor about non compliance of laws & regulations by management.
  - (b) With reference to SA 530, meaning of audit sampling and requirements relating to sample design, sample size & selection of items for testing.

#### **Basic Concepts in Auditing**

- 5. (a) State the factors that may assist the auditor in determining whether external confirmation procedures are to be performed as substantive audit procedures.
  - (b) "External confirmation procedures frequently are relevant when addressing assertions associated with account balances and their elements, but need not be restricted to these items." Explain.
- 6. (a) How would you proceed to check the misappropriation of cash in a trading concern?
  - (b) State any six areas in which different accounting policies may be encountered.
- 7. (a) "Accounting estimate means an approximation of a monetary amount in the absence of a precise means of measurement". Discuss explaining the accounting estimates according to SA-540.
  - (b) Explain concept of 'Materiality'.

### Preparation for an Audit

- 8. (a) "In cases where audit sample selection has been done on a random basis, no statistical process for selection of samples needs to be followed". Comment.
  - (b) "An audit programme is a detailed plan of applying the audit procedure in the given circumstance for accomplishing the audit objectives". Discuss.
- 9. (a) Discuss the factors the auditor will consider while establishing the overall strategy.
  - (b) State the precaution to be taken in adopting test checking techniques.

#### **Internal Control**

- 10. (a) Explain the concept of Internal Control. Also state the objectives of Internal Control.
  - (b) "Satisfactory Control Environment may help reduce the risk of fraud but is not an absolute deterrent for fraud". Explain.
- 11. (a) What is check list? Give few examples of check list instruction.
  - (b) Discuss the circumstances where auditing through the Computer must be used.
- 12. (a) Explain clearly the meaning of Internal Check. Also state general consideration in framing a system of internal check.
  - (b) Explain the activities of the Internal Audit function.

### **Vouching & Verification of Assets and Liabilities**

- 13. (a) Describe how the payments from petty cash should be verified.
  - (b) Define vouching. Also discuss the essential points to be borne in mind while examining a voucher.
- 14. How would you vouch/verify the following:
  - (a) Cash Sales
  - (b) Receipt from Account Receivable
  - (c) Consignment Sales
  - (d) Customs & Excise Duties
  - (e) Travelling Expenses
  - (f) Repairs to Assets
- 15. (a) Discuss the special precautions in verification of purchase invoice.
  - (b) Explain the steps involved in carrying out the audit of ledgers.

### **Company Audit**

- 16. Comment on the following:
  - (a) An auditor purchased goods worth ₹ 510,200 on credit from a company being audited by him. The company allowed him one month's credit, which it normally allowed to all known customers.
  - (b) Mr. A, a chartered accountant has been appointed as auditor of Laxman Ltd. in the Annual General Meeting of the company held in September, 2015. Subsequently in January, 2016 he joined Mr. B, another chartered accountant, who is the Manager Finance of Laxman Ltd., as partner.
  - (c) Due to the resignation of the existing auditor(s), the Board of directors of X Ltd. appointed CA. Hari as the auditor. Is the appointment of Hari as auditor valid?
- 17. Explain the following:
  - (a) Appointment of First Auditor of a Non-Government Company.
  - (b) Appointment of First Auditor of a Government Company.
  - (c) Appointment of Subsequent Auditor of a Non-Government Company.
  - (d) Appointment of Subsequent Auditor of a Government Company.
- 18. (a) Discuss the audit procedure for verification of payment of dividends.
  - (b) ABC Ltd. issued shares to its equity shareholders in the proportion of one bonus share for every four existing shares. As an auditor of the company, how would you verify this issue?

#### **Special Audits**

- 19. (a) An audit of Expenditure is one of the major components of Government Audit. In the context of 'Government Expenditure Audit', write in brief, what do you understand by:
  - (i) Audit against Rules and Orders
  - (ii) Audit of Sanctions
  - (iii) Audit against Provision of Funds
  - (iv) Propriety Audit
  - (v) Performance Audit.
  - (b) What role is played by Comptroller and Auditor General of India in the audit of a Government company?
- 20. What are the special audit points to be considered by the auditor during the audit of a Hospital?

#### **SUGGESTED ANSWERS / HINTS**

- (i) Incorrect: SA 700 deal with forming an opinion and reporting of financial statement whereas SA 705 deals with modifications to the opinion in the Independent Auditor's Report.
  - (ii) Incorrect: 'Guidance Notes' are primarily designed to provide guidance to members on matters which may arise in the course of their professional work and on which they may desire assistance in resolving issues which may pose difficulty. Guidance Notes are recommendatory in nature.
  - (iii) Incorrect: As per SA 240, misstatements in the financial statements can arise from either fraud or error.
  - (iv) Incorrect: Misappropriation of assets can be accomplished in a variety of ways including embezzling receipts, stealing physicals assets etc.
  - (v) Incorrect: As per SA-240, "The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements", the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and management.
  - (vi) Incorrect: Observation consists of looking at a process or procedure being performed by others.
  - (vii) Incorrect: Audit working papers constitute the basic record for the auditor in respect of the audit carried out by him.
  - (viii) Incorrect: External evidence is the evidence that originates outside the client' Organisation, e.g. Purchase Invoice, Debit Note, Credit Note etc.
  - (ix) Incorrect: The Audit engagement letter is sent by the auditor to his client.
  - (x) Incorrect: Sufficiency is the measure of the quantity of audit evidence. On the other hand, appropriation is the measure of the quality of audit evidence.
  - (xi) Incorrect: Risk of material misstatement may be defined as the risk that the financial statements are materially misstated prior to audit.
  - (xii) Incorrect: Test of controls may be defined as an audit procedure designed to evaluate the operating effectiveness of controls in preventing, or detecting and correcting, material misstatements at the assertion level.
    - Substantive procedure may be defined as an audit procedure designed to detect material misstatements at the assertion level. Substantive procedures comprise:
    - (i) Tests of details (of classes of transactions, account balances, and disclosures), and
    - (ii) Substantive analytical procedures.

2. (a) Factors Causing Risk Under Statutory Audit: As Per SA 200 "Overall Objectives of the Independent Auditor and the conduct of an audit in accordance with standards on auditing", the purpose of an audit is to enhance the degree of confidence of intended users in the financial statements. This is achieved by the expression of an opinion by the auditor on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework. In the case of most general purpose frameworks, that opinion is on whether the financial statements are presented fairly, in all material respects, or give a true and fair view in accordance with the framework. An audit conducted in accordance with SAs and relevant ethical requirements enables the auditor to form that opinion.

An independent audit whether performed in terms of applicable financial reporting framework or in terms of the engagement, the auditor has to be reasonably satisfied as to whether the information contained in the underlying accounting records and other source data is reliable for the preparation of financial statements. Since the entire process of auditing is based on the assessment of judgements made by the management of the entity as well as evaluation of internal controls, the audit suffers certain inherent risks.

## Factors which may cause such risk in conducting an audit are discussed below-

- (i) Exercising judgement on the part of the auditor: The auditor's work involves exercise of judgement, for example, in deciding the extent of audit procedures and in assessing the reasonableness of the judgements and estimates made by management in preparing the financial statements.
- (ii) **Nature of audit evidence:** Much of the evidence available to the auditor can enable him to draw only reasonable conclusions therefrom. The auditor normally relies upon persuasive evidence rather than conclusive evidence. Even in circumstances where conclusive evidence is available, the cost of obtaining such an evidence may far exceed the benefits.
- (iii) Inherent limitations of internal control: Internal control can provide only reasonable, but not absolute, assurance on account of several inherent limitations such as potential for human error, possibility of circumstances of control through collusion, etc.

On account of above, it is quite clear that an audit suffers from control risk on account of inherent limitations of internal control and detection risk on account of test nature of audit and judgement and estimates involved in formulating accounting policies.

**(b) Effect of Subsequent Events:** SA 560 "Subsequent Events", establishes standards on the auditor's responsibility regarding subsequent events.

According to it, 'subsequent events' refer to those events which occur between the date of financial statements and the date of the auditor's report, and facts that become known to the auditor after the date of the auditor's report. It lays down the standard that the auditor should consider the effect of subsequent events on the financial statements and on the auditor's report.

The auditor should obtain sufficient appropriate evidence that all events upto the date of the auditor's report requiring adjustment or disclosure have been identified and to identify such events. The auditor should-

- (i) obtain an understanding of any procedures management has established to ensure that subsequent events are identified.
- (ii) inquire of management and, where appropriate, those charged with governance as to whether any subsequent events have occurred which might affect the financial statements.

Examples of inquiries of management on specific matters are:

- Whether new commitments, borrowings or guarantees have been entered into.
- Whether sales or acquisitions of assets have occurred or are planned.
- Whether there have been increases in capital or issuance of debt instruments, such as the issue of new shares or debentures, or an agreement to merge or liquidate has been made or is planned.
- Whether there have been any developments regarding contingencies.
- ➤ Whether there have been any developments regarding risk areas and contingencies.
- Whether any unusual accounting adjustments have been made or are contemplated.
- Whether any events have occurred or are likely to occur which will bring into question the appropriateness of accounting policies used in the financial statements as would be the case, for example, if such events call into question the validity of the going concern assumption.
- Whether any events have occurred that are relevant to the measurement of estimates or provisions made in the financial statements.
- Whether any events have occurred that are relevant to the recoverability of assets.
- (iii) Read minutes, if any, of the meetings, of the entity's owners, management and those charged with governance, that have been held after the date of the financial statements and inquiring about matters discussed at any such meetings for which minutes are not yet available.

- (iv) Read the entity's latest subsequent interim financial statements, if any.
- (v) Read the entity's latest available budgets, cash flow forecasts and other related management reports for periods after the date of the financial statements.
- (vi) Inquire, or extend previous oral or written inquiries, of the entity's legal counsel concerning litigation and claims.
- (vii) Consider whether written representations covering particular subsequent events may be necessary to support other audit evidence and thereby obtain sufficient appropriate audit evidence.

When the auditor identifies events that require adjustment of, or disclosure in, the financial statements, the auditor shall determine whether each such event is appropriately reflected in those financial statements. If such events have not been considered by the management and which in the opinion of the auditor are material, the auditor shall modify his report accordingly.

- 3. (a) Auditing and Statistics & Mathematics: With the passage of time, test check procedures in auditing have become part of generally accepted auditing procedures. With the emergence of test check procedure, discipline of statistics has come quite close to auditing as the auditor is also expected to have the knowledge of statistical sampling so as to arrive at meaningful conclusions. The knowledge of mathematics is also required on the part of auditor particularly at the time of verification of inventories.
  - (b) Inherent Limitations of Audit: As per SA 200 "Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Standards on Auditing", the objectives of an audit of financial statements, prepared with in a framework of recognised accounting policies and practices and relevant statutory requirements, if any, is to enable an auditor to express an opinion on such financial statements. In forming his opinion on the financial statements, the auditor follows procedures designed to satisfy him that the financial statements reflect a true and fair view of the financial position and operating results of the enterprise. The process of auditing, however, is such that it suffers from certain limitations, i.e. the limitation which cannot be overcome irrespective of the nature and extent of audit procedures. The limitations of an audit arise from-
    - (i) The Nature of Financial Reporting: The preparation of financial statements involves judgment by management in applying the requirements of the entity's applicable financial reporting framework to the facts and circumstances of the entity. In addition, many financial statement items involve subjective decisions or assessments or a degree of uncertainty, and there may be a range of acceptable interpretations or judgments that may be made. Consequently, some financial statement items are subject to an inherent level of variability which cannot be eliminated by the application of additional auditing procedures.

- (ii) **The Nature of Audit Procedures:** There are practical and legal limitations on the auditor's ability to obtain audit evidence. For example:
  - (1) There is the possibility that management or others may not provide, intentionally or unintentionally, the complete information that is relevant to the preparation and presentation of the financial statements or that has been requested by the auditor.
  - (2) Fraud may involve sophisticated and carefully organised schemes designed to conceal it. The auditor is neither trained as nor expected to be an expert in the authentication of documents.
  - (3) An audit is not an official investigation into alleged wrongdoing. Accordingly, the auditor is not given specific legal powers, such as the power of search, which may be necessary for such an investigation.
- (iii) Timeliness of Financial Reporting and the Balance between Benefit and Cost: The relevance of information, and thereby its value, tends to diminish over time, and there is a balance to be struck between the reliability of information and its cost. There is an expectation by users of financial statements that the auditor will form an opinion on the financial statements within a reasonable period of time and at a reasonable cost, recognising that it is impracticable to address all information that may exist or to pursue every matter exhaustively on the assumption that information is in error or fraudulent until proved otherwise.
- (iv) Other Matters that Affect the Limitations of an Audit: In the case of certain assertions or subject matters, the potential effects of the limitations on the auditor's ability to detect material misstatements are particularly significant. Such assertions or subject matters include:
  - Fraud, particularly fraud involving senior management or collusion.
  - The existence and completeness of related party relationships and transactions.
  - The occurrence of non-compliance with laws and regulations.
  - Future events or conditions that may cause an entity to cease to continue as a going concern.

Because of the limitations of an audit, there is an unavoidable risk that some material misstatements of the financial statements may not be detected, even though the audit is properly planned and performed in accordance with SAs.

- **4. (a) Non-compliance of Laws and Regulations by Management:** As per SA 250 on "Consideration of Laws and Regulation in an Audit of Financial Statements", the following are examples or matters indicating to the auditor about non-compliance with laws and regulations by management:
  - (i) Investigations by regulatory organisations and government departments or

- payment of fines or penalties.
- (ii) Payments for unspecified services or loans to consultants, related parties, employees or government employees.
- (iii) Sales commissions or agent's fees that appear excessive in relation to those ordinarily paid by the entity or in its industry or to the services actually received.
- (iv) Purchasing at prices significantly above or below market price.
- (v) Unusual payments in cash, purchases in the form of cashiers' cheques payable to bearer or transfers to numbered bank accounts.
- (vi) Unusual payments towards legal and retainership fees.
- (vii) Unusual transactions with companies registered in tax havens.
- (viii) Payments for goods or services made other than to the country from which the goods or services originated.
- (ix) Payments without proper exchange control documentation.
- (x) Existence of an information system which fails, whether by design or by accident, to provide an adequate audit trail or sufficient evidence.
- (xi) Unauthorised transactions or improperly recorded transactions.
- (xii) Adverse media comment.
- **(b)** Audit Sampling: As per SA 530 on "Audit Sampling", the meaning of the term "Audit Sampling" is the application of audit procedures to less than 100% of items within a population of audit relevance such that all sampling units have a chance of selection in order to provide the auditor with a reasonable basis on which to draw conclusions about the entire population.

According to the said SA, requirements relating to sample design, sample size and selection of items for testing are explained below -

**Sample Design -** When designing an audit sample, the auditor shall consider the purpose of the audit procedure and the characteristics of the population from which the sample will be drawn.

**Sample Size -** The auditor shall determine a sample size sufficient to reduce sampling risk to an acceptably low level.

**Selection of Items for Testing -** The auditor shall select items for the sample in such a way that each sampling unit in the population has a chance of selection.

- 5. (a) Factors that may assist the auditor in determining whether external confirmation procedures are to be performed as substantive audit procedures include:
  - The confirming party's knowledge of the subject matter responses may be more reliable if provided by a person at the confirming party who has the requisite

knowledge about the information being confirmed.

- The ability or willingness of the intended confirming party to respond for example, the confirming party:
  - May not accept responsibility for responding to a confirmation request;
  - May consider responding too costly or time consuming;
  - ◆ May have concerns about the potential legal liability resulting from responding;
  - May account for transactions in different currencies; or
  - May operate in an environment where responding to confirmation requests is not a significant aspect of day-to-day operations.

In such situations, confirming parties may not respond, may respond in a casual manner or may attempt to restrict the reliance placed on the response.

- The objectivity of the intended confirming party if the confirming party is a related party of the entity, responses to confirmation requests may be less reliable.
- (b) External Confirmation: External confirmation procedures frequently are relevant when addressing assertions associated with account balances and their elements, but need not be restricted to these items. For example, the auditor may request external confirmation of the terms of agreements, contracts, or transactions between an entity and other parties. External confirmation procedures also may be performed to obtain audit evidence about the absence of certain conditions. For example, a request may specifically seek confirmation that no "side agreement" exists that may be relevant to an entity's revenue cut-off assertion. Other situations where external confirmation procedures may provide relevant audit evidence in responding to assessed risks of material misstatement include:
  - Bank balances and other information relevant to banking relationships.
  - Accounts receivable balances and terms.
  - Inventories held by third parties at bonded warehouses for processing or on consignment.
  - Property title deeds held by lawyers or financiers for safe custody or as security.
  - Investments held for safekeeping by third parties, or purchased from stockbrokers but not delivered at the balance sheet date.
  - Amounts due to lenders, including relevant terms of repayment and restrictive covenants.
  - Accounts payable balances and terms.

**6. (a) Steps to check Misappropriation of Cash:** Trading is a chain of business process of buying, taking delivery of goods bought, making proper arrangements for their storage and issuing them on sale, etc.

The function of audit, in this background, is to ensure that there is no leakage of goods or cash; also that the goods that are purchased have been received and are of the type dealt in by the firm, the prices are normal and the goods have been duly accounted for.

It is, therefore, the duty of the auditors to see that in the trading establishment, the accounts of which he is called upon to audit, has devised a system of internal control as a safeguard against the losses that may arise out of the foregoings.

Some of the methods through which cash may be misappropriated include-

- (a) Omission cash receipts:
  - (i) cash sales not recorded:
  - (ii) teeming and lading;
  - (iii) casual receipts of miscellaneous nature not entered; and
  - (iv) sale proceeds of fully written off assets not recorded.
- (b) Recording of less amounts than that actually received.
- (c) Recording of more amounts than that actually expended, e.g., discounts or rebates not taken into account while making payments, etc. Inclusion of fictitious payments in cash book e.g. wages paid to 'ghost' or 'dummy' workers, salary paid to apprentices whose tenure of services expired, etc.
- (d) Intentional errors in totaling, balancing and carrying over of cash book balances.

With a view to check misappropriation of cash, the existence of internal check system is quite essential. In particular, the following may be noted -

- (i) Ascertaining the existence of system of cash receipts and disbursements of cash sales and purchases and existence of internal checks at various stages is quite important. In particular, the separation of duties and incompatible functions, e.g., an employee who receives and deposits cash and cheques should not prepare sales invoices, or reconcile bank accounts, and authorised signatory should not approve vouchers for payment.
- (ii) Checking of cash receipts with counterfoils of the receipts issued. But the issue of receipts with counterfoils in respect of amounts collected by itself would not ensure that all the amounts collected have been fully accounted for or have been correctly adjusted. For instance, a receipt might be issued for a larger amount than entered on its counterfoils. Again, only one receipt might have been issued for two or more amounts collected from a party while the counterfoils may show that separate receipts have been issued in respect of

each amount collected and the one or more receipts forms, thus saved, may have been used for issuing a receipt of another amount collected which have been misappropriated. Therefore, before accepting counterfoils or receipts as evidence or the correctness of the amount collected, the auditor should satisfy himself that there exists an efficient system of internal check which would prevent any receipt from being misappropriated.

- (iii) Checking of date of each receipt as it is entered in the cash memo or the counterfoil of the receipt issued in respect thereof corresponds with the date on which it is entered in the Cash Book. If there is a time lag between them, it is possible that the person who had collected the amount had failed to deposit it with the cashier immediately thereafter. When such a discrepancy is observed, the cause thereof should be ascertained.
- (iv) Verify cash sales with carbon copies of cash memos. If sales are quite voluminous then a Cash Sales Summary Book is maintained and the cash memos are traced into it; the totals of the Summary Book are verified and the daily totals of the Summary book traced into the Cash Book. One of the matters, to which attention of the auditor should be paid in the process, is that the dates on the cash memos should tally with those on which cash collected in respect thereof, as entered in the Cash Book.
- (v) Check receipt of cash from the customers against price of goods sold with the counterfoils of receipt issued to them. Also compare entries of amounts deposited in the bank account with those on counterfoils of the Pay-in-Slip Book. If the composition of the deposits is different from that shown on the counterfoils of the Pay-in-Slip Book, it would be a *prima facie* evidence of the fact that the amounts collected were not deposited as soon as these were received. Another evidence of the existence of such a fraud can be the fact that debits in customers' accounts, which ought to have collected in whole, are cleared in small instalments.

### (b) Areas in which different Accounting Policies may be Encountered are:

- (i) Method of depreciation, depletion and amortization Straight Line Method, Written Down Value method.
- (ii) Valuation of inventories FIFO, LIFO, weighted average etc.
- (iii) Treatment of goodwill write off, retain.
- (iv) Valuation of investment at cost, market or net realizable value etc.
- (v) Treatment of retirement benefits actuarial, funded through trust, insurance policy etc.
- (vi) Valuation of fixed assets historical cost, revaluation price, exchange fluctuation etc.

(**Note**: The above list is not exhaustive. There may be other examples as well.)

7. (a) Accounting Estimates: According to the SA 540, "Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosure", accounting estimate means an approximation of a monetary amount in the absence of a precise means of measurement. This term is used for an amount measured at fair value where there is estimation uncertainty, as well as for other amounts that require estimation. SA 540 addresses only accounting estimates involving measurement at fair value, the term "fair value accounting estimates" is used.

Because of the uncertainties inherent in business activities, some financial statement items can only be estimated. Further, the specific characteristics of an asset, liability or component of equity, or the basis of or method of measurement prescribed by the financial reporting framework, may give rise to the need to estimate a financial statement item. Some financial reporting frameworks prescribe specific methods of measurement and the disclosures that are required to be made in the financial statements, while other financial reporting frameworks are less specific.

Some accounting estimates involve relatively low estimation uncertainty and may give rise to lower risks of material misstatements, for example:

- Accounting estimates arising in entities that engage in business activities that are not complex.
- Accounting estimates that are frequently made and updated because they relate to routine transactions.

For some accounting estimates, however, there may be relatively high estimation uncertainty, particularly where they are based on significant assumptions, for example:

- > Accounting estimates relating to the outcome of litigation.
- Fair value accounting estimates for derivative financial instruments not publicly traded.

Additional examples of accounting estimates are:

- Allowance for doubtful accounts.
- Inventory obsolescence.
- Warranty obligations.
- Depreciation method or asset useful life.
- Provision against the carrying amount of an investment where there is uncertainty regarding its recoverability.

- Outcome of long term contracts.
- Financial Obligations / Costs arising from litigation settlements and judgments.
- (b) Concept of Materiality: According to SA 200 "Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Standards on Auditing", financial reporting frameworks often discuss the concept of materiality in the context of the preparation and presentation of financial statements. Although financial reporting frameworks may discuss materiality in different terms, they generally explain that:
  - Misstatements, including omissions, are considered to be material if they, individually or in the aggregate, could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements:
  - Judgments about materiality are made in the light of surrounding circumstances, and are affected by the auditor's perception of the financial information needs of users of the financial statements, and by the size or nature of a misstatement, or a combination of both; and
  - Judgments about matters that are material to users of the financial statements
    are based on a consideration of the common financial information needs of
    users as a group. The possible effect of misstatements on specific individual
    users, whose needs may vary widely, is not considered.
    - (1) Such a discussion, if present in the applicable financial reporting framework, provides a frame of reference to the auditor in determining materiality for the audit. If the applicable financial reporting framework does not include a discussion of the concept of materiality, the characteristics referred above provides the auditor with such a frame of reference.
    - (2) The auditor's determination of materiality is a matter of professional judgment, and is affected by the auditor's perception of the financial information needs of users of the financial statements. In this context, it is reasonable for the auditor to assume that users:
      - (a) Have a reasonable knowledge of business and economic activities and accounting and a willingness to study the information in the financial statements with reasonable diligence;
      - (b) Understand that financial statements are prepared, presented and audited to levels of materiality;
      - (c) Recognize the uncertainties inherent in the measurement of amounts based on the use of estimates, judgment and the consideration of future events; and

- (d) Make reasonable economic decisions on the basis of the information in the financial statements.
- (3) The concept of materiality is applied by the auditor both in planning and performing the audit, and in evaluating the effect of identified misstatements on the audit and of uncorrected misstatements, if any, on the financial statements and in forming the opinion in the auditor's report.
- **8. (a) Selection of Audit Sample:** Audit Sampling means the application of audit procedures to less than 100% of the items within an account balance or class of transactions to enable the auditor to obtain and evaluate audit evidence about some characteristics of the items selected in order to form or assist in forming a conclusion concerning the population.

The audit sample collection on a random basis ensures that all items in the population have an equal chance of selection, for example, by use of random number tables. This method is considered appropriate, provided the population to be sampled consists of reasonably similar units and fall within a reasonable range.

Thus, strictly speaking, in case of selection of an audit sample on the basis of random tables there is no need to follow any other statistical process for selection of sample.

In fact, selection of an audit sample on random basis is the pre-requisite for application of statistical techniques. However, certain methods such as Haphazard Sampling and Block Sampling may result in selection of a sample which is not free from bias.

Therefore, whenever audit sample selection has been done on a random basis i.e. selection of a representative sample, no statistical process for selection of sample needs to be followed.

- (b) Audit Programme: An audit programme is a detailed plan of applying the audit procedure in the given circumstances with instructions for the appropriate techniques to be adopted for accomplishing the audit objectives. It is framed keeping in view the nature, size and composition of the business, dependability of the internal control and the given scope of work. Audit programme provides sufficient details to serve as a set of instructions to the audit team and also helps to control the proper execution of the work. On the basis of experience while carrying out the audit work, the programme may be altered to take care of situations which were left out originally, but found relevant for the particular audit situation. Similarly, if any work originally provided for proves beyond doubt to be unnecessary or irrelevant, that may be dropped. There should be periodic review of the audit programme to assess whether the same continues to be adequate for obtaining requisite knowledge and evidence about the transactions. For the purpose of framing an audit programme the following points should be kept in view:
  - Audit objective

- Audit procedure to be applied
- > Extent of check
- > Timing of check
- > Allocation of work amongst the team members
- Special instructions based on past experience of the auditee.

# 9. (a) In establishing the overall audit strategy, the auditor shall:

- (i) Identify the characteristics of the engagement that define its scope;
- (ii) Ascertain the reporting objectives of the engagement to plan the timing of the audit and the nature of the communications required;
- (iii) Consider the factors that, in the auditor's professional judgment, are significant in directing the engagement team's efforts;
- (iv) Consider the results of preliminary engagement activities and, where applicable, whether knowledge gained on other engagements performed by the engagement partner for the entity is relevant; and
- (v) Ascertain the nature, timing and extent of resources necessary to perform the engagement.
- (b) Precautions to be taken in Adopting Test Checking Techniques: Generally, a large manufacturing concern is associated with a large volume of transactions. Also, the nature of the transactions is determined by the nature of the business. For example, one may find numerous purchases of raw materials, stores, spares, etc. there may be thousands of workers to be paid wages on weekly basis; the wages again may be calculated on a job or time basis. Depending upon the product lines, the sales mechanics may be different for different products some may be to dealers and agents, some to wholesalers and some others even to retailers and consumers directly. Sales and purchase operations may stretch even to overseas markets. There may be various forms in which such a concern can raise bank finance, like letter of credit, packing credit, overdraft, bills discounted, etc. Basically, in a large manufacturing concern the problem is the problem of volume and variety.

In the circumstances when necessarily the test check technique has got to be adopted for audit work, it should be done by taking certain precautions so that a reliable idea about the truth and fairness of the accounts can be obtained by the auditor.

## The precautions that should be taken may be the following:

(i) The transactions of the concern should be classified under appropriate heads and may be stratified if wide variations are there between transactions of the same kind.

- (ii) Systems and procedures for entering into and processing a transaction right from the beginning to the end should be studied in a sequential order. It involves questions of authorisations, documentation and recording and evidencing the same.
- (iii) The whole of the system of internal control in the areas of accounts and finance should be studied and evaluated for its efficiency, soundness and capability for producing reliable accounting and financial data. This can be done by studying the controls and internal checks, evaluating their general soundness in the context of the business of the concern and testing their actual operation. If, and only if, the auditor is satisfied about soundness of the controls and their operation in actuality, can he decide to have test checks. For testing the operation of the control system, he should select a few transactions and check them in depth by the application of procedural tests.
- (iv) A properly thought-out test check plan should be prepared and the objective of each check should be clearly understood by the auditing staff. For example, each voucher may be checked by the test check method for a number of objectives - one may be to ensure that the cash payments are properly authorised and acknowledged, others may be to see whether the amount actually payable has in fact been paid and whether the payment has been debited to the proper account. If there is a mix-up in the objectives or the objective is to test a number of variables in one test scheme, the result may not be helpful. Hence it requires a clear definition of the audit objective related to the particular test check plan.
- (v) The transactions falling under each test-check plan should be selected in a manner so that bias cannot enter in the selection. For the purpose, selection should be made by reference to the random number tables.
- (vi) Identification of the areas where test check may not be done. For example, if there are only 20 overseas sales in the year, it would be preferable to have them all thoroughly checked.
- (vii) The number of transactions to be selected for each test-check plan should be predetermined. This can be done by deciding upon the degree of reliance that should be placed on the test-check result and the confidence that can be placed the result to be obtained should be veering round the degree of reliance set up. Once the degree of reliance and the confidence level required in the audit for expression of the opinion have been decided, the number to be tested out of the given population can be easily known by reference to the statistical tables.
- (viii) Errors that may be found may be material or immaterial in the context of the particular audit. Since errors of immaterial nature are not likely to distort the overall truth and fairness of the accounts, it is necessary to decide upon the

criteria to judge what constitutes a material error. Further investigation of immaterial error may be avoided and only the material errors may be properly and thoroughly investigated.

10. (a) Internal Control: As per SA-315, "Identifying and Assessing the Risk of Material Misstatement Through Understanding the Entity and its Environment" the internal control may be defined as "the process designed, implemented and maintained by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations, safeguarding of assets, and compliance with applicable laws and regulations. The term "controls" refers to any aspects of one or more of the components of internal control."

## **Objectives of Internal Control:**

- transactions are executed in accordance with managements general or specific authorization;
- (ii) all transactions are promptly recorded in the correct amount in the appropriate accounts and in the accounting period in which executed so as to permit preparation of financial information within a framework of recognized accounting policies and practices and relevant statutory requirements, if any, and to maintain accountability for assets;
- (iii) assets are safeguarded from unauthorised access, use or disposition; and
- (iv) the recorded assets are compared with the existing assets at reasonable intervals and appropriate action is taken with regard to any differences.
- (b) Satisfactory Control Environment not an absolute deterrent to fraud: The existence of a satisfactory control environment can be a positive factor when the auditor assesses the risks of material misstatement. However, although it may help reduce the risk of fraud, a satisfactory control environment is not an absolute deterrent to fraud. Conversely, deficiencies in the control environment may undermine the effectiveness of controls, in particular in relation to fraud. For example, management's failure to commit sufficient resources to address IT security risks may adversely affect internal control by allowing improper changes to be made to computer programs or to data, or unauthorized transactions to be processed. As explained in SA 330, the control environment also influences the nature, timing, and extent of the auditor's further procedures.

The control environment in itself does not prevent, or detect and correct, a material misstatement. It may, however, influence the auditor's evaluation of the effectiveness of other controls (for example, the monitoring of controls and the operation of specific control activities) and thereby, the auditor's assessment of the risks of material misstatement.

- 11. (a) A Check List: This is a series of instructions and/or questions which a member of the auditing staff must follow and/or answer. When he completes instruction, he initials the space against the instruction. Answers to the check list instructions are usually Yes, No or Not Applicable. This is again an on the job requirement and instructions are framed having regard to the desirable elements of control. A few examples of check list instructions are given hereunder:
  - 1. Are tenders called before placing orders?
  - 2. Are the purchases made on the basis of a written order?
  - 3. Is the purchase order form standardised?
  - 4. Are purchase order forms pre-numbered?
  - 5. Are the inventory control accounts maintained by persons who have nothing to do with:
    - (i) custody of work;
    - (ii) receipt of inventory;
    - (iii) inspection of inventory; and
    - (iv) purchase of inventory?

The complete check list is studied by the Principal/Manager/Senior to ascertain existence of internal control and evaluate its implementation and efficiency.

**(b)** Auditing through the Computer: The auditor can use the computer to test: (a) the logic and controls existing within the system and (b) the records produced by the system. Depending upon the complexity of the application system being audited, the approach may be fairly simple or require extensive technical competence on the part of the auditor.

There are several circumstances where auditing through the computer must be used:

- (1) The application system processes large volumes of input and produces large volumes of output that make extensive direct examination of the validity of input and output difficult.
- (2) Significant parts of the internal control system are embodied in the computer system. For example, in an online banking system a computer program may batch transactions for individual tellers to provide control totals for reconciliation at the end of the day's processing.
- (3) The logic of the system is complex and there are large portions that facilitate use of the system or efficient processing.
- (4) Because of cost-benefit considerations, there are substantial gaps in the visible audit trail

The primary advantage of this approach is that the auditor has increased power to effectively test a computer system. The range and capability of tests that can be performed increases and the auditor acquires greater confidence that data processing is correct. By examining the system's processing the auditor also can assess the system's ability to cope with environment change.

The primary disadvantages of the approach are the high costs sometimes involved and the need for extensive technical expertise when systems are complex. However, these disadvantages are really spurious if auditing through the computer is the only viable method of carrying out the audit.

- 12. (a) Internal Check: Internal check has been defined by the Institute of Chartered Accountants of England and Wales as the "checks on day-to-day transactions which operate continuously as part of the routine system whereby the work of one person is proved independently or is complementary to the work of another, the object being the prevention or early detection of errors or fraud". Internal check is a part of the overall internal control system and operates as a built-in device as far as the staff organisation and job allocation aspects of the control system are concerned. A system of internal check in accounting implies organisation of system of book keeping and arrangement of staff duties in such a manner that no one person can completely carry through a transaction and record every aspect thereof. The essential elements of a goods system of internal check are:
  - (i) Existence of checks on the day-to-day transaction.
  - (ii) Which operate continuously as a part of the routine system.
  - (iii) Whereby the work of each person is either proved independently or is made complementary to the work of another.

Its objective is to prevent and to bring about a speedy detection of frauds, wastes and errors. The system is based on the principle that when the performance of each individual in an organisation, normally and automatically, is checked by another, the chances of occurrence of errors, or their remaining undetected, are greatly reduced; also that, when two or more persons essentially must combine either to receive or to make a payment, there will be lesser possibility of a fraud being perpetrated by them.

For instance, let us consider the simple case of a trading concern. It would have a cashier to receive cash who also shall issue receipts. There would be separate persons to write the cash book and ledgers, the stores accounts would be maintained by the store-keeper, and so on; there would be thus a large number of functionaries. In such an organisation, for putting through a transaction of sale, first of all a bill would be prepared and the same would be checked and authorised by the sales manager; afterwards the cashier would collect the sale price and finally

the store-keeper would issue the goods, on being satisfied that each of the functionaries earlier to him had carried out his part of duties.

Such a division of responsibilities is made on the broad principle that persons having physical custody of assets should not have access to the books of account. Also apart from accounting control, the physical and financial records of important assets should be reconciled periodically.

The scope of the statutory or professional audit is limited by the both the cost and the time factors. Therefore, it is increasingly being recognised that for an audit to be effective, especially when the size of a concern is large, the existence of a system of internal check is essential. The auditor can rely on it and, on that consideration, reduce the extent of detailed checking to be carried out by him but only after he has checked its effectiveness by the application of procedural tests. It must, however, be added that in the event of any mistake or fraud being discovered subsequently in the area of accounts which the statutory auditor has accepted to be correct, he may be guilty of negligence regardless of the fact that he had tested the internal check in operation before he has accepted it to be correct.

## General Considerations in Framing a System of Internal Check:

- (i) No single person should have an independent control over any important aspect of the business. All dealings and acts of every employee should, in the ordinary course, come under the review of another.
- (ii) The duties of members of the staff should be changed from time to time without any previous notice so that the same officer or subordinate does not, without a break, perform the same function for a considerable length of time.
- (iii) Every member of the staff should be encouraged to go on leave at least once in a year. Experience has shown that frauds successfully concealed by employees are often unearthed when they are on leave.
- (iv) Persons having physical custody of assets must not be permitted to have access to the books of account.
- (v) There should exist an accounting control in respect of each important class of assets; in addition, these should be periodically inspected so as to establish their physical condition.
- (vi) To prevent loss or misappropriation of cash, mechanical devices, such as the automatic cash register, should be employed.
- (vii) A majority of business concerns now-a-days work according to some kind of budgetary control. It enables them to review from time to time the progress of their trading activities. Such business houses should have a separate staff for the collection of statistical figures which later on should be checked with the corresponding figures from the financial books. If wide discrepancies are

- observed, these should be reconciled.
- (viii) For inventory-taking, at the close of the year, trading activities should, if possible, be suspended. The task of inventory-taking, and evaluation should be done by staff belonging to several sections of the organisation. It may prove dangerous to depend exclusively on the inventory section staff for these tasks, since they may be tempted to under or over-state the inventory.
- (ix) The financial and administrative powers should be distributed very judiciously among different officers and the manner in which these are actually exercised should be reviewed periodically.
- (x) Procedures should be laid down for periodical verification and testing of different sections of accounting records to ensure that they are accurate.
- (xi) Accounting procedures should be reviewed periodically, for, even well-designed and carefully installed procedures, in course of time, cease to be effective.
- (b) Internal Audit Function: As per SA-610, "Using the Work of an Internal Auditor", the objectives of internal audit functions vary widely and depend on the size and structure of the entity and the requirements of management and, where applicable, those charged with governance. The activities of the internal audit function may include one or more of the following:
  - Monitoring of internal control. The internal audit function may be assigned specific responsibility for reviewing controls, monitoring their operation and recommending improvements thereto.
  - Examination of financial and operating information. The internal audit function may be assigned to review the means used to identify, measure, classify and report financial and operating information, and to make specific inquiry into individual items, including detailed testing of transactions, balances and procedures.
  - Review of operating activities. The internal audit function may be assigned to review the economy, efficiency and effectiveness of operating activities, including non- financial activities of an entity.
  - Review of compliance with laws and regulations. The internal audit function
    may be assigned to review compliance with laws, regulations and other
    external requirements, and with management policies and directives and other
    internal requirements.
  - Risk management. The internal audit function may assist the organization by identifying and evaluating significant exposures to risk and contributing to the improvement of risk management and control systems.

- Governance. The internal audit function may assess the governance process in its accomplishment of objectives on ethics and values, performance management and accountability, communicating risk and control information to appropriate areas of the organization and effectiveness of communication among those charged with governance, external and internal auditors, and management.
- 13. (a) Petty Cash: Payments from petty cash should be verified as follows -
  - (i) Trace the amounts advanced to the petty cashier for meeting petty office expenses from the Cash Book in the Petty Cash Book.
  - (ii) Vouch payments with docket vouchers which must be supported, wherever possible, by external evidence e.g., payee's receipted bill or invoices, cash memo, etc.
  - (iii) Trace payments made for the purchase of postage stamps recorded in the Postage Book. The totals of the Postage Book should be test checked. The amounts of postage stamps in hand, at the end of the year, should be credited to Postage Account by debiting the amounts to Postage in Hand Account. It should be seen that the amount paid for postage stamps is not unduly large and the Postage Book is normally checked by the petty cashier from time to time before the amount of imprest is reimbursed. Confirm that the postage expenses for the year are reasonable as compared with that in the postage expenses from month to month.
  - (iv) See where a columnar Petty Cash Book is maintained, that the extension have been carried forward into appropriate amount columns.
  - (v) Check the column totals and cross totals.
  - (vi) Trace posting of the various columns in which payments are classified to the respective ledger accounts.
  - (vii) Verify the cash balance in hand.
  - (viii) Auditor should also verify whether the amount of petty cash imprest is fixed. Is this amount reasonable considering the total amount of petty cash payments made during a month or so?
  - (b) Vouching: The act of examining vouchers is referred to as vouching. It is the practice followed in an audit with the objective of establishing the authenticity of the transactions recorded in the primary books of account. It essentially consists of verifying a transaction recorded in the books of account with the relevant documentary evidence and the authority on the basis of which the entry has been made; also confirming that the amount mentioned in the voucher has been posted to an appropriate account which would disclose the nature of the transaction on its

inclusion in the final statements of account. On these considerations, the essential points to be borne in mind while examining a voucher are:

- (i) that the date of the voucher falls within the accounting period;
- (ii) that the voucher is made out in the client's name;
- (iii) that the voucher is duly authorised;
- (iv) that the voucher comprised all the relevant documents which could be expected to have been received or brought into existence on the transactions having been entered into, i.e., the voucher is complete in all respects; and
- (v) that the account in which the amount of the voucher is adjusted is the one that would clearly disclose the character of the receipts or payments posted thereto on its inclusion in the final accounts.

After the examination is over, each voucher should be either impressed with a rubber stamp or initialed so that it may not be presented again in support of another entry.

14. (a) Cash Sales: Primarily, the system of internal check should be examined with the objective of finding out loopholes therein, if any, whereby cash sales could be misappropriated. Further, the practice followed in the manner cash memos are issued should be ascertained. Because in case, cash memos are issued not only for cash sales but also for credit sales, the amount whereof if collected long after, there would be no guarantee that all the amount of cash sales has been collected before the close of year or that some of the amounts collected have not been misappropriated.

Cash sales usually are verified with carbon copies of cash memos. If sales are quite voluminous then a Cash Sales Summary Book is maintained and the cash memos are traced into it; the totals of the Summary Book are verified and the daily totals of the Summary book traced into the Cash Book. One of the matters, to which attention of the auditor should be paid in the process, is that the dates on the cash memos should tally with those on which cash collected in respect thereof has been entered in the Cash Book.

To verify that price of goods sold has been calculated correctly; the computation of the sales should be ascertained. If a cash memo has been cancelled, its original copy should be inspected, for it could be that the amount thereof has been misappropriated.

(b) Receipts from Account Receivables: Receipt of cash from the account receivables against price of goods sold are checked with the counterfoils of receipt issued to them. At the same time, it is also verified that there is a system of internal check in operation which acts as a safeguard against amounts collected being misappropriated. One of the common devices for misappropriating cash collections from account receivables is the one known as Teeming and Lading. Such a fraud, usually, remains undetected for long since the cashier is able to make good the amounts misappropriated before the cash balance is checked. At times, the cashier who has committed such a fraud may cover up the amounts misappropriated, by raising a fictitious debit in an expense account.

When such a fraud is suspected, the first step in its investigation should be making comparison of the entries of amounts deposited in the bank account with those on counterfoils of the Pay-in-Slip Book. If the composition of the deposits is different from that shown on the counterfoils of the Pay-in-Slip Book, it would be a *prima facie* evidence of the fact that the amounts collected were not deposited as soon as these were received. Another evidence of the existence of such a fraud can be the fact that debits in account receivables' accounts, which ought to have collected in whole, are cleared in small instalments.

If such evidence exists, the matter should be investigated further. This can be done by all the account receivables being requested to send statements of account from their books, for the period during which the fraud is suspected to have been in progress. On comparing items in each statement, with the entries in the account receivable's accounts, it would be possible to locate amounts which were not deposited on the day these were collected, but subsequently.

(c) Consignment Sale: Where the number of consignments sent out in a year is large, usually a separate consignment Sales Day Book and Ledger are kept. In that case, the entries in the Day Book in respect of price of goods sent out and expenses incurred on their transport and insurance should be verified with copies of proforma invoices and other relevant documents; the sale price of goods sold and expenses incurred by the consignee should be verified from the Account Sales.

The balances in the Consignment Ledger, at the end of the year in such a case, would represent the cost of unsold goods, including a proportion of non-recurring expenses incurred on their transport and insurance. These balances should agree with those shown in the respective account sales received from the consignees.

If the goods sent out for sale on consignment have been charged at the invoice price, the difference between the cost and the invoice price would be credited to the Consignment Stock Adjustment Account. The appropriate part of the amount credited in this account attributable to the inventory remaining unsold at the year end, should be reversed so that credit can be taken for the net amount representing the difference for the part actually sold.

- (d) Customs and Excise Duties: The audit procedures for custom duties are listed below-
  - (i) **Examine Cash Book:** Examine the payment of custom duties in the cash book

with reference to bill of entry.

## (ii) Examine the Bill of Entry:

- ✓ Check the amount of custom duty was calculated correctly, i.e., in accordance with the applicable rate for dutiable goods.
- ✓ If the duty has been paid by dealing and forwarding agent, examine bill of entry with reference to agent's bill.
- ✓ If the duty has been paid by the client directly, examine bill of entry together with receipt evidencing payment of customs duty.
- (iii) Examine Disputed Cases Carefully: In case of a dispute about the amount of duty payable, a provisional payment may have been made. The auditor should determine the duty payable and ensure any additional duty to be paid or refund expected should have been adjusted.
- (iv) Verify for Duty Drawback: Duty drawback refers to a scheme under which central excise and customs duties paid for raw-materials and other inputs used in the manufacture of the product prior to its export are refunded to the exporter. The auditor should verify the claim of duty drawback with reference to acknowledgement issued by the Directorate of duty drawback.

Excise duty becomes payable at the time of releasing of excisable goods from the factory/godown to the manufacturer. Normally, the excise duty payable is deposited with the designated bank to the credit of the controller of excise and one copy of the challan is forwarded to him for obtaining the permit and another copy is sent to the dispatch department evidencing payment of required duty. The auditor may adopt the following procedures to vouch the payment of excise duties:

- (i) Verify payment of excise duties by examining the duly paid as per Challans with reference to the quantity of goods in respect of which issue permits have been received.
- (ii) Test check the accuracy of the amount of duty paid by multiplying the rate of excise duty with the value of goods issued as per the client's inventory register.
- (iii) In respect of excisable goods manufactured but remaining to be released, ensure that necessary provision for unpaid excise duty has been made.
- (iv) Ensure that in every case CENVAT credit has been adjusted and only net excise duty has been paid.
- (e) Travelling Expenses: Travelling expenses are normally payable to staff according to rules approved by directors or partners. Where no rules exist, the auditor should recommend that these be framed for controlling the expenditure. In the absence of T.A. Rules, the expenditure should be vouched on the basis of actual expenditure

incurred. A voucher should be demanded for all items of expenses incurred, except those which are capable of independent verification.

As regards travelling expenses claimed by directors the auditor should satisfy himself that these were incurred by them in the interest of the business and that the directors were entitled to receive the amount from the business.

The voucher for travelling expenses should normally contain the under mentioned information:

- (i) Name and designation of the person claiming the amount.
- (ii) Particulars of the journey.
- (iii) Amount of railway or air fare.
- (iv) Amount of boarding or lodging expenses or daily allowance along with the dates and times of arrival and departure from each station.
- (v) Other expenses claimed, e.g., porterage, tips, conveyance, etc.

If the journey was undertaken by air, the counterfoil of the air ticket should be attached to the voucher; this should be inspected. For travel by rail or road, the amount of the fare claimed should be checked from some independent source. Particulars of boarding and lodging expenses and in the case of halting allowance the rates thereof should be verified. The evidence in regard to sundry expenses claimed is generally not attached to T.A. bills. So long as the amount appears to be reasonable it is usually not questioned. All vouchers for travelling expenses should be authorised by some responsible official. In the case of foreign travel or any extraordinary travel, the expenses, before being paid, should be sanctioned by the Board. The travelling advance taken, if any, should be settled on receipt of final bills. At the year end, the amount not settled should be shown appropriately in the Balance Sheet.

Unless the articles specifically provide or their payment has been authorised by a resolution of shareholders, directors are not entitled to charge travelling expenses for attending Board Meetings.

(f) Repairs to Assets: Since the line demarcating repairs from renewals is slender, usually it is not a simple matter to determine the amount of the expenditure, if any, included as charges for repairs, which should be considered as that incurred for renewal of an asset and added to its cost. It may sometimes be possible to determine this on a consideration of the nature of repairs carried out. The proportion of the charges which had the effect of increasing the value of an asset or enhancing its capacity or life should be treated as capital expenditure. Where, however, it is not possible to form an opinion accurately on the basis of evidence as regards the nature of repairs, a certificate from the engineer under whose supervision the repairs were carried out, confirming the classification of expenditure should be

obtained. It should be ensured that Repairs to 'Certain Assets' like Building and Machinery have been separately disclosed as per the requirements of Schedule III.

# 15. (a) Special Precautions in Verification of Purchase Invoices:

- (i) When an invoice runs into several pages and the total of each page has been carried forward to the next or where the amount of an invoice has been distributed over several accounts, it should be confirmed that the amounts relating to different parts of the invoice have been adjusted together. When the total amount of the invoice has been adjusted in separate accounts, the entire amount so adjusted should be added together to confirm that there has not been error under adjustment.
- (ii) At times, invoices are received in duplicate and even triplicate. In such cases, payment usually is made on the basis of the original invoice. Sometimes, however, the original is kept in record and the price is adjusted on the basis of the duplicate. In such a case, it should be confirmed that the original invoice has also been paid or adjusted separately.
- (iii) Often supplies are received on certain special conditions. In such cases, it should be verified that these are the same as were agreed to at the time the order was placed, e.g., payment of freight and insurance charges of goods while in transit, etc. If the amount of an invoice was payable after the lapse of some time, subsequent to the receipt of goods, it should be ascertained that it has not been paid earlier and the benefit of cash discount, if any, has been obtained. Where a trade discount has been deducted from the amount of the invoice, it should be seen that only the net amount has been credited to the supplier.
- (iv) Where goods have been purchased for the use of an officer or a subordinate but the invoice is made out in the name of the concern for obtaining the benefit of trade discount, it should be seen that the cost has been charged to the person concerned and not to the Purchases Account.
- (v) Purchases of goods from the allied and associated concerns can be made only under an appropriate sanction.
- (vi) If the case of an invoice addressed to an individual, particular care should be taken when vouching such an item, since the individual may have attempted to procure goods for his own use while allowing the company to pay for them. The system of internal check for purchases should be such as to preclude such a possibility. Nevertheless, it should be seen whether the goods are of a type which the company usually requires, and whether the invoice has been duly checked by someone other than the individual to whom it was addressed.

The delivery note and the goods inward note should be examined and it should be seen that the goods were inspected on arrival. Further evidence should also

be sought to establish whether the goods were actually received into inventory. The original order for goods should have been duly authorised by a responsible official. The firm supplying the goods should be requested not to submit invoices addressed in this way.

- (vii) If materials are bought for delivery direct to a account receivable, the exact circumstances of the transaction should be ascertained and the reasons for the goods having been delivered direct to the account receivable. The auditor should make appropriate inquiries in order to establish that the transaction was appropriately authorised by a responsible official. A copy of the delivery note signed by the account receivable on delivery of the goods should be examined, and it should be ascertained whether the account receivable is a regular purchaser of the company's goods and not an employee of the company wishing to take advantage of a weakness in the system. The original order should also be seen to have duly authorised by the appropriate official, and if this practice is a regular feature of the company's mode of transacting business, the system of internal check should be such as to ensure that no fraud may by perpetrated as a result of this practice. The payment for the goods, if it has been received, should be vouched to the cash book and bank statement.
- (viii) Though it is not practicable for an auditor to verify that every item of goods purchased has been entered in inventory, he should trace into the inventory record at least purchases of goods during the opening and closing months and accept the correctness of the rest only if he is satisfied that there exists a system of internal control which prevent payment being made for any goods not received in inventory.
- **(b) Audit of Ledgers General Considerations:** The audit of ledgers generally involves the under mentioned steps -
  - (i) Testing the strength and quantity of internal check;
  - (ii) Tracing the opening balances from the previous year's records;
  - (iii) Checking the postings from subsidiary books and, if they are kept on the self-balancing system, also tallying the totals of balances in subsidiary ledgers with those in the total of control account:
  - (iv) Checking the closing balances of individual accounts on the balance schedules afterwards from the schedules on to grouping schedules and then into the final accounts:
  - (v) Checking the totals of ledger accounts, trial balance, schedules and groupings;
  - (vi) Verifying the balances in personal accounts, either with the statements of account or confirmation of balances obtained from the parties; verifying the balances in impersonal accounts, *viz.*, those of fixed assets, bank balances, etc. with the schedules containing details of assets and liabilities as well as

those of nominal accounts (featuring various items of income and expense by reference to the documentary evidence which may exist in a variety of forms to ensure that all the outstanding amounts, both receivable and payable have been properly adjusted);

- (vii) Scrutinizing the accounts generally and, in particular, examining the composition of final balances; and
- (viii) Ascertaining the extent of clearance of the balances brought forward from the previous year particularly those relating to receivables and payables, sale or disposal of fixed assets and of inventories.

The audit of ledgers is thus an important step in the process of verification of the correctness of Final Accounts. It is an occasion to review the transactions entered during an accounting period, duly classified, in the totality; also that of studying the relationship which exists between different sets of figures. Ledgers, therefore, should be examined carefully and comprehensively. The composition of the balance of each account should be scrutinised and, if a doubt arises, the transaction or the set of transactions, which have given rise to the doubt should be examined in depth.

When a comprehensive and effective system of internal control exists, it is possible to limit the routine checking of ledgers by the application of test checks as stated below:

- (i) verifying the postings into the ledgers from the various books of prime entry;
- (ii) verifying the totals of the account;
- (iii) tracing the balances of the personal and nominal accounts from the ledgers into the schedule of balances;
- (iv) comparing schedules totals with the balances in the Control Accounts; and
- (v) checking the position of the daily entries into Control Accounts.

The foregoing audit tests are applied to a selected group of entries in the ledgers. Alternatively, steps (i) to (iv) should be applied to accounts for parts of the year determined on a selection. However, the posting of the Control Accounts should be verified for the whole year. In selecting the period or periods of verification of posting and totals, preference should be given to the accounts the composition whereof is not clear or in which items on either side cannot be correlated. Moreover, instead of certain periods being selected for the application of test checks, a few accounts could be selected for being test checked for the whole of the year.

If, however, the system of internal control on application of procedural tests is found to be ineffective, it would be necessary for the auditor to extend the programme of verification of balances of the accounts in the ledgers as aforementioned. In doing so, the auditor should take into account the existence of possibilities of frauds being committed through manipulation of entries in the ledgers, for example, the

possibility of the ledger clerk colluding with others for misappropriating amounts collected from the account receivables and subsequently covering up misdeeds by adjusting fictitious credit in the account receivable accounts.

Such a fraud in a ledger would not be disclosed merely on extracting balances from the ledger and agreeing their totals with the balance in the respective Control Accounts, since the balances, despite the fraud, would agree. It would be discovered either on postings being checked in detail, or on obtaining detailed statements of account from account receivables and comparing them with those stated in the books of account.

**16.** (a) Purchase of Goods on Credit by the Auditor: Section 141(3)(d)(ii) of the Companies Act, 2013 specifies that a person shall be disqualified to act as an auditor if he is indebted to the company for an amount exceeding five lakh rupees.

Where an auditor purchases goods or services from a company audited by him on credit, he is definitely indebted to the company and if the amount outstanding exceeds rupees five lakh, he is disqualified for appointment as an auditor of the company.

It will not make any difference if the company allows him the same period of credit as it allows to other customers on the normal terms and conditions of the business. The auditor cannot argue that he is enjoying only the normal credit period allowed to other customers. In fact, in such a case he has become indebted to the company and consequently he has deemed to have vacated his office.

(b) Disqualifications of an Auditor: Section 141(3)(c) of the Companies Act, 2013 prescribes that any person who is a partner or in employment of an officer or employee of the company will be disqualified to act as an auditor of a company. Sub-section (4) of Section 141 provides that an auditor who incurs any of the disqualifications mentioned in sub-section (3) after his appointment, he shall vacate his office as such auditor.

In the present case, Mr. A, an auditor of Laxman Ltd., joined as partner with Mr. B, who is Manager Finance of Laxman Limited, has attracted sub-section (3)(c) of Section 141 and, therefore, he shall be deemed to have vacated office of the auditor of Laxman Limited.

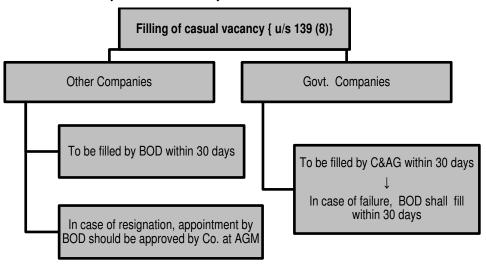
- **(c) Board's Powers to Appoint an Auditor:** As per Section 139(8) of the Companies Act, 2013, any casual vacancy in the office of an auditor shall-
  - (i) In the case of a company other than a company whose accounts are subject to audit by an auditor appointed by the Comptroller and Auditor-General of India, be filled by the Board of Directors within 30 days.

If such casual vacancy is as a result of the resignation of an auditor, such appointment shall also be approved by the company at a general meeting convened within 3 months of the recommendation of the Board and he shall

hold the office till the conclusion of the next annual general meeting;

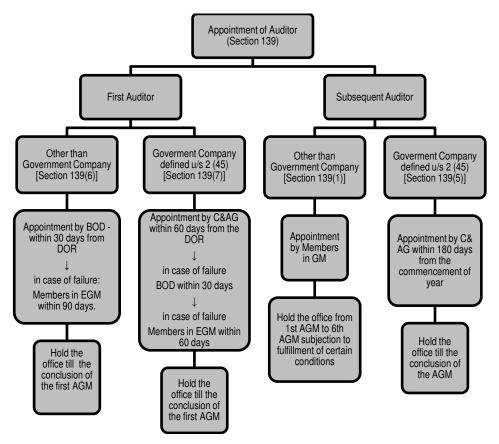
(ii) In the case of a company whose accounts are subject to audit by an auditor appointed by the Comptroller and Auditor-General of India, be filled by the Comptroller and Auditor-General of India within 30 days.

It may be noted that in case the Comptroller and Auditor-General of India does not fill the vacancy within he said period the Board of Directors shall fill the vacancy within next 30 days.



In the given case, the Board of directors of X Ltd. has appointed CA. Hari as the auditor due to resignation of the existing auditor(s). The appointment made by the Board is correct, however, such appointment should be approved by the company at a general meeting convened within 3 months of the recommendation of the Board and newly appointed auditor shall hold office till the conclusion of the next annual general meeting.

- 17. Appointment of Auditors: Section 139 of the Companies Act, 2013 contains provisions regarding appointment of Auditors. Provisions related to appointment of auditors may be grouped under two broad headings-
  - I Appointment of First Auditors.
  - II Appointment of Subsequent Auditors.



- (a) Appointment of First Auditor of a Non-Government Company: As per Section 139(6) of the Companies Act, 2013, the first auditor of a company, other than a Government company, shall be appointed by the Board of Directors within 30 days from the date of registration of the company.
  - In the case of failure of the Board to appoint the auditor, it shall inform the members of the company.
  - The members of the company shall within 90 days at an extraordinary general meeting appoint the auditor. Appointed auditor shall hold office till the conclusion of the first annual general meeting.
- (b) Appointment of First Auditor of a Government Company: Section 139(7) of the Companies Act, 2013 provides that in the case of a Government company or any other company owned or controlled, directly or indirectly, by the Central Government, or by any State Government, or Governments, or partly by the Central Government and partly by one or more State Governments, the first auditor shall be appointed by the Comptroller and Auditor-General of India within 60 days from the date of registration of the company.

In case the Comptroller and Auditor-General of India does not appoint such auditor within the above said period, the Board of Directors of the company shall appoint such auditor within the next 30 days. Further, in the case of failure of the Board to appoint such auditor within next 30 days, it shall inform the members of the company who shall appoint such auditor within 60 days at an extraordinary general meeting. Auditors shall hold office till the conclusion of the first annual general meeting.

- (c) Appointment of Subsequent Auditor of a Non-Government Company: As per section 139(1) of the Companies Act, 2013, every company shall, at the first annual general meeting appoint an individual or a firm as an auditor who shall hold office from the conclusion of that meeting till the conclusion of its sixth annual general meeting and thereafter till the conclusion of every sixth meeting.
- (d) Appointment of Subsequent Auditor of a Government Company: As per Section 139(5) of the Companies Act, 2013, in the case of a Government company or any other company owned or controlled, directly or indirectly, by the Central Government, or by any State Government or Governments, or partly by the Central Government and partly by one or more State Governments, the Comptroller and Auditor-General of India shall, in respect of a financial year, appoint an auditor duly qualified to be appointed as an auditor of companies under this Act, within a period of 180 days from the commencement of the financial year, who shall hold office till the conclusion of the annual general meeting.
- **18.** (a) Verification of Payment of Dividends: The procedure for the verification of payment of dividends is stated below-
  - (i) Examine the company's Memorandum and Articles of Association to ascertain the dividend rights of different classes of shares.
  - (ii) Confirm that the profits appropriated for payment of dividend are distributable having regard to the provisions contained in Section 123 of the Companies Act, 2013. If the company proposes to pay the dividend out of past profit in reserves, see that either this is in accordance with the rules framed by the Central Government in this behalf.
  - (iii) Inspect the Shareholders' Minute Book to verify the amount of dividend declared and confirm that the amount recommended by the directors.
  - (iv) If a separate bank account was opened for payment of dividends, check the transfer of the total amount of dividends payable from the Dividends Accounts.
  - (v) Check the particulars of members as are entered in the Dividend Register or Dividend List by reference to the Register of Members, test check the calculation of the gross amount of dividend payable to each shareholder on the basis of the

- number of the shares held and the amount of CDT, if applicable. Verify the casts and crosscast of the different columns.
- (vi) Check the amount of dividend paid with the dividend warrants surrendered. Reconcile the amount of dividend warrants outstanding with the balance in the Dividend Bank Account.
- (vii) Examine the dividend warrants in respect of previous years, presented during the year for payment and verify that by their payment, any provision contained in the Articles in the matter of period of time during which amount of unclaimed dividend can be paid had not been contravened.
- (viii) It is compulsory for a company to transfer the total amount of dividend which remains unpaid or unclaimed, within thirty days of the declaration of the dividend to a special bank account entitled "Unpaid Dividend Account". Such an account is to be opened only in a scheduled bank. The transfer must be made within 7 days from the date of expiry of thirty days.
- (ix) In case any money transferred to the unpaid dividend amount of a company remain unpaid or unclaimed for a period of 7 years from the date of such transfer shall be transferred to Investor Education and Protection Fund.
- (x) Ensure the compliance, in case dividend is paid in case of inadequate profits.
- **(b) Verification of Issue of Bonus Shares:** Section 63 of the Companies Act, 2013 allows a company to issue fully paid-up bonus shares to its members, in any manner whatsoever, out of-
  - (i) its free reserves;
  - (ii) the securities premium account; or
  - (iii) the capital redemption reserve account.

The auditor should ensure that no issue of bonus shares shall be made by capitalising reserves created by the revaluation of assets.

Further, he should also ensure the compliance of condition for capitalization of profits or reserves for the issuing fully paid-up bonus shares like -

- (i) it is authorised by its articles;
- (ii) it has, on the recommendation of the Board, been authorised in the general meeting of the company;
- (iii) it has not defaulted in payment of interest or principal in respect of fixed deposits or debt securities issued by it;
- (iv) it has not defaulted in respect of the payment of statutory dues of the employees, such as, contribution to provident fund, gratuity and bonus;
- (v) the partly paid-up shares, if any outstanding on the date of allotment, are made

fully paid-up;

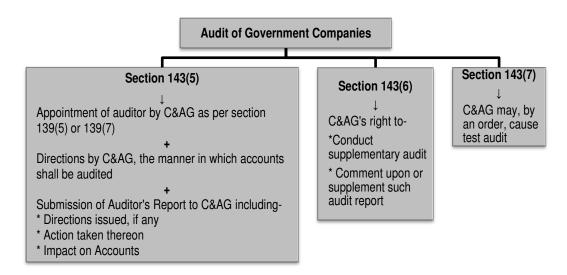
- (vi) it complies with such conditions as may be prescribed like the company which has once announced the decision of its Board recommending a bonus issue, shall not subsequently withdraw the same;
- (vii) the bonus shares shall not be issued in lieu of dividend.
- 19. (a) Government Expenditure Audit: Audit of government expenditure is one of the major components of government audit conducted by the office of C&AG. The basic standards set for audit of expenditure are to ensure that there is provision of funds authorised by competent authority fixing the limits within which expenditure can be incurred. Briefly, these standards are explained below:
  - (i) Audit against Rules & Orders: The auditor has to see that the expenditure incurred conforms to the relevant provisions of the statutory enactment and is in accordance with the financial rules and regulations framed by the competent authority.
  - (ii) **Audit of Sanctions:** The auditor has to ensure that each item of expenditure is covered by a sanction, either general or special, accorded by the competent authority, authorising such expenditure.
  - (iii) Audit against Provision of Funds: It contemplates that there is a provision of funds out of which expenditure can be incurred and the amount of such expenditure does not exceed the appropriations made.
  - (iv) Propriety Audit: It is required to be seen that the expenditure is incurred with due regard to broad and general principles of financial propriety. The auditor aims to bring out cases of improper, avoidable, or in fructuous expenditure even though the expenditure has been incurred in conformity with the existing rules and regulations. Audit aims to secure a reasonably high standard of public financial morality by looking into the wisdom, faithfulness and economy of transactions.
  - (v) Performance Audit: This involves that the various programmes, schemes and projects where large financial expenditure has been incurred are being run economically and are yielding results expected of them. Efficiency-cumperformance audit, wherever used, is an objective examination of the financial and operational performance of an organisation, programme, authority or function and is oriented towards identifying opportunities for greater economy, and effectiveness.
  - **(b)** Role of C&AG in the Audit of a Government company: Role of C&AG is prescribed under sub-section (5), (6) and (7) of section 143 of the Companies Act, 2013.

In the case of a Government company, the comptroller and Auditor-General of India shall appoint the auditor under sub-section (5) or sub-section (7) of section 139 i.e. appointment of First Auditor or Subsequent Auditor and direct such auditor the manner in which the accounts of the Government company are required to be audited and thereupon the auditor so appointed shall submit a copy of the audit report to the Comptroller and Auditor-General of India which, among other things, include the directions, if any, issued by the Comptroller and Auditor-General of India, the action taken thereon and its impact on the accounts and financial statement of the company.

The Comptroller and Auditor-General of India shall within 60 days from the date of receipt of the audit report have a right to,

- (i) conduct a supplementary audit of the financial statement of the company by such person or persons as he may authorize in this behalf; and for the purposes of such audit, require information or additional information to be furnished to any person or persons, so authorised, on such matters, by such person or persons, and in such form, as the Comptroller and Auditor-General of India may direct; and
- (ii) comment upon or supplement such audit report: It may be noted that any comments given by the Comptroller and Auditor-General of India upon, or supplement to, the audit report shall be sent by the company to every person entitled to copies of audited financial statements under sub-section (1) of section 136 i.e. every member of the company, to every trustee for the debenture-holder of any debentures issued by the company, and to all persons other than such member or trustee, being the person so entitled and also be placed before the annual general meeting of the company at the same time and in the same manner as the audit report.

**Test Audit:** Further, without prejudice to the provisions relating to audit and auditor, the Comptroller and Auditor- General of India may, in case of any company covered under sub-section (5) or sub-section (7) of section 139, if he considers necessary, by an order, cause test audit to be conducted of the accounts of such company and the provisions of section 19A of the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Act, 1971, shall apply to the report of such test audit.



- **20. Audit of Hospital:** The audit points to be considered by the auditor during the audit of a Hospital are stated below -
  - (i) Income from Services: Vouch the Register of patients with copies of bills issued to them. Verify bills for a selected period with the patients' attendance record to see that the bills have been correctly prepared. Also see that bills have been issued to all patients from whom an amount was recoverable according to the rules of the hospital.
  - (ii) **Collection of Cash:** Check cash collections as entered in the Cash Book with the receipts, counterfoils and other evidence for example, copies of patients bills, counterfoils of dividend and other interest warrants, copies of rent bills, etc.
  - (iii) **Income from Investments:** See by reference to the property and Investment Register that all income that should have been received by way of rent on properties, dividends, and interest on securities settled on the hospital, has been collected.
  - (iv) **Legacies and Donations:** Ascertain that legacies and donations received for a specific purpose have been applied in the manner agreed upon.
  - (v) Reconciliation of Subscriptions: Trace all collections of subscription and donations from the Cash Book to the respective Registers. Reconcile the total subscriptions due (as shown by the Subscription Register and the amount collected and that still outstanding).
  - (vi) Authorisation and Sanctions: Vouch all purchases and expenses and verify that the capital expenditure was incurred only with the prior sanction of the Trustees or

- the Managing Committee and that appointments and increments to staff have been duly authorised.
- (vii) **Grants and TDS:** Verify that grants, if any, received from Government or local authority has been duly accounted for. Also, that refund in respect of taxes deducted at source has been claimed.
- (viii) **Budgets:** Compare the totals of various items of expenditure and income with the amount budgeted for them and report to the Trustees or the Managing Committee significant variations which have taken place.
- (ix) **Internal Check:** Examine the internal check as regards the receipt and issue of stores; medicines, linen, apparatus, clothing, instruments, etc. so as to ensure that purchases have been properly recorded in the Inventory Register and that issues have been made only against proper authorisation.
- (x) **Depreciation:** See that depreciation has been written off against all the assets at the appropriate rates.
- (xi) **Registers:** Inspect the bonds, share scrips, title deeds of properties and compare their particulars with those entered in the property and Investment Registers.
- (xii) **Inventories:** Obtain inventories, especially of stocks and stores as at the end of the year and check a percentage of the items physically; also compare their total values with respective ledger balances.
- (xiii) Management Representation and Certificate: Get proper Management Representation and Certificate with respect to various aspects covered during the course of audit.

# PAPER – 7: INFORMATION TECHNOLOGY AND STRATEGIC MANAGEMENT SECTION – A: INFORMATION TECHNOLOGY QUESTIONS

- 1. Define the following terms briefly:
  - (i) Read Only Memory
  - (ii) Expenditure Cycle in Accounts BPM
  - (iii) Network Contention
  - (iv) Site Blocking
  - (v) Micro Waves
  - (vi) Database Management Systems (DBMS)
  - (vii) Data Flow Diagram
  - (viii) Desktop Publishing
  - (ix) Digital Signatures
  - (x) Error Handling in Computer-based Information Systems
- 2. Differentiate between the following:
  - (i) Terrestrial Microwave and Radio Wave
  - (ii) Print Server and Network Server
  - (iii) Connection Oriented Networks and Connectionless Networks
  - (iv) Economic Feasibility and Technical Feasibility
  - (v) Parallel Conversion and Phased Conversion
  - (vi) Physical Security of System and Logical Security of System
  - (vii) Transaction Processing System (TPS) and Management Information System (MIS)
  - (viii) Storage Virtualization and Network Virtualization
  - (ix) Serial Transmission and Parallel Transmission
  - (x) Hardware Resources and Software Resources
- 3. Write short note on the following:
  - (i) Information as a Business Asset
  - (ii) Data Processing Cycle
  - (iii) System Implementation Phase in System Development Life Cycle (SDLC)
  - (iv) Business-to-Consumer (B2C) e-Commerce
  - (v) Training Management
  - (vi) Source based Application

- (vii) MS Office Applications
- (viii) Credit Card Transaction
- (ix) Principle of Least Privilege
- (x) Micro Architecture

## E-R Diagram

4. Discuss different types of relationships that exist in E-R Diagrams.

# **Central Processing Unit**

5. Discuss the functional units of CPU (Central Processing Unit).

# Peer-to-Peer (P2P) Network

6. What do you understand by 'Peer-to-Peer Networks? Discuss in detail its advantages and disadvantages.

# Artificial Intelligence (AI)

7. Discuss some of the commercial applications of Artificial Intelligence (AI).

## **Business Process Management Systems (BPMS)**

8. Give some reasons why Documentation is important to Information Systems?

#### **Business Process Automation**

9. What is 'Business Process Automation?' From IT perspective, what are the IT processes that are usually involved in any typical business enterprise.

#### **Flowchart**

10. A bicycle shop in a city hires bicycles by the day at different rates for different models as given below:

Model No.	Hire rate per day
Model No. 1	₹ 10
Model No. 2	₹ 9
Model No. 3	₹ 8
Model No. 4	₹ 7

In order to attract customers, the shopkeeper gives a discount of 15 percent to all those customers, who hire a bicycle for more than one-week period. Further to attract women customer, he gives additional discount of 10 percent irrespective of hire period. For every bicycle hired; a security deposit of ₹ 25 must be paid. Draw a flow chart to print out the details of each customer such as name of customer, bicycle model number, number of days a bicycle is hired for, hire charges, discount and total charges including deposits.

# **Information Systems' Controls**

11. How the Information Systems' Controls are categorized on the basis of "Audit function"?

# **Network Management**

12. Discuss the ways of characterizing common functions of Network Management.

## Vulnerability

13. What do you understand by the term "Vulnerability" in Network Security? What factors are responsible for occurrence of vulnerabilities in the software?

# **Types of Information Systems**

14. How the Information Systems are classified? Who use these Information Systems?

# Core Banking System (CBS)

15. Discuss Core Banking Systems (CBS) and their basic functions.

#### **SUGGESTED ANSWERS / HINTS**

- (i) Read Only Memory (ROM): It is non volatile in nature wherein contents remain even in absence of power. Usually, it is used to store small amount of information for quick reference by CPU. In ROM, Information can be read not modified. Generally, it is used by manufacturers to store data & programs like translators that are used repeatedly.
  - (ii) Expenditure Cycle in Accounts BPM: This includes transactions surrounding the recognition of expenditures involving accounts like Purchases, Accounts Payable, Cash Disbursements, Inventory and General Ledger. This further incorporates preparation and recording of purchase orders; receipt of goods and the recording of the cost of inventory; receipt of vendor invoices; recording of accounts payable and preparation and recording of cash disbursements. The cycle also includes the preparation of employee pay-checks and the recording of payroll activities.
  - (iii) **Network Contention:** Network Contention refers to the situation that arises when there is a conflict for some common resource in a network. For example, network contention could arise when two or more computer systems try to communicate at the same time.
  - (iv) Site Blocking: Site blocking is a software-based approach that prohibits access to certain websites that are deemed inappropriate by management. For example, sites that contain explicit objectionable material can be blocked to prevent employee's from accessing these sites from company Internet servers. In addition to blocking sites, companies can also log activities and determine the amount of time spent on the Internet and identify the sites visited.

- (v) Micro Waves: Microwaves are radio waves with wavelengths ranging from as long as one meter to as short as one millimeter, or equivalently, with frequencies between 300 MHz (0.3 GHz) and 300 GHz. These are used for communication, radar systems, radio astronomy, navigation and spectroscopy.
- (vi) Database Management Systems (DBMS): Database Management Systems (DBMS) are software that aid in organizing, controlling and using the data needed by the application programme. Various operations on the files such as adding new files to database; deleting existing files from database; inserting data in existing files; modifying data in existing files; deleting data in existing files, and retrieving or querying data from existing files. They provide the facility to create and maintain a well-organized database. Applications access the DBMS, which then accesses the data. Commercially available Data Base Management Systems are Oracle, My SQL, SQL Servers and DB2 etc.
- (vii) Data Flow Diagram (DFD): A Data Flow Diagram (DFD) is a graphical representation of the flow of data through an information system. A DFD illustrates technical or business processes with the help of the external data stored, the data flowing from a process to another, and the results. A DFD may be partitioned into levels that represent increasing information flow and functional detail. Therefore, the DFD provides a mechanism for functional modeling as well as information flow modeling.
- (viii) **Desktop Publishing:** The Desktop Publishing systems are often supported with laser printers, inkjet printers, scanners and other such devices for producing good quality documents. The desktop publishing systems help in quick production of multiple copies of the document with quality printing.
- **(ix) Digital Signatures:** In computer system, Digital Signatures establish the privacy and authenticity of persons, integrity of data and prevent the denial of messages or contracts when data is exchanged electronically (non-repudiation).
- (x) Error Handling in Computer-based Information Systems: This ensures that errors detected at any stage of processing receive prompt corrective action and are reported to the appropriate level of management.
- 2. (i) Terrestrial Microwave: Terrestrial microwave involves earth-bound microwave systems, which transmit high-speed radio signals in a line-of-sight path between relay stations spaced approximately 30 miles apart. Terrestrial microwave media uses the atmosphere as the medium through which to transmit signals, and is used extensively for high-volume as well as long-distance communication of both data and voice in the form of electromagnetic waves. However major disadvantage of terrestrial microwave is that it cannot bend around the curvature of the earth.

Radio Waves: Wireless networks do not require any physical media or cables for data transmission. Radio waves are an invisible form of electromagnetic radiation

- that varies in wavelength from around a millimeter to 100,000 km, making it one of the widest ranges in the electromagnetic spectrum. Radio waves are most commonly used transmission media in the wireless Local Area Networks.
- (ii) **Print Server:** A print server, or printer server, is a device that connects printers to client computers over a network. It accepts print jobs from the computers and sends the jobs to the appropriate printers, queuing the jobs locally to accommodate the fact that work may arrive more quickly than the printer can actually handle.
  - **Network Server:** A network server is a computer system, which is used as the central repository of data and various programs that are shared by users in a network.
- (iii) Connection Oriented Networks: In connection oriented service, a connection is first established and then data is exchanged like it happens in case of telephone networks. When connection is established we send the message or the information and then we release the connection.
  - **Connectionless Networks:** In connectionless networks, the data is transferred in one direction from source to destination without checking that destination is still there or not, or if it is prepared to accept the message. Data which is being exchanged in fact has a complete contact information of recipient and at each intermediate destination, it is decided how to proceed further like it happens in case of postal networks. Example of Connectionless service is UDP (User Datagram Protocol) protocol.
- (iv) Economic Feasibility: The purpose of the economic feasibility assessment is to determine the positive economic benefits to the organization that the proposed system will provide. It assesses the answers of the questions like Is the proposed system cost-effective?; If benefits outweigh costs?; or if it's worth going ahead?
  - **Technical Feasibility:** This assessment is based on an outline design of system requirements, to determine whether the company has the technical expertise to handle completion of the project. This answers the question like Does the technology exist to implement the proposed system or is it a practical proposition?
- (v) Parallel Conversion: Parallel conversion involves running both the old system and the new system together for some period of time say few weeks or months. At some pre-determined time, the current system is withdrawn entirely and all the users and participants interact solely with the new system.
  - **Phased Conversion:** Phased conversion is used with larger systems that can be broken down unto individual modules which can be implemented separately at different times and is mainly used with larger systems.
- **(vi) Physical Security of System:** A Physical Security of system is implemented to protect the physical systems' assets of an organization like the personnel, hardware, facilities, supplies and documentation.

**Logical Security of System:** A Logical Security of system is intended to protect data/information and software. Security administrators tend to have responsibility for controls over malicious and non-malicious threats to physical security, and malicious threats to logical security itself.

(vii) Transaction Processing System (TPS): A Transaction Processing System (TPS) may be defined as a type of Information System that collects, stores, modifies and retrieves the day-to-day data transactions of an enterprise. TPS systems are designed to process transactions virtually instantly to ensure that customer data is available to the processes that require it.

**Management Information System (MIS):** Management Information System (MIS) is an old management tool, which has been long used by people for superior management and scientific decision making. MIS is primarily dependent upon information and is an example of Management Level systems that help middle managers who are responsible for carrying out the goals set by Top Management.

(viii) Storage Virtualization: Storage virtualization is the apparent pooling of data from multiple storage devices, even different types of storage devices, into what appears to be a single device that is managed from a central console. Storage virtualization helps the storage administrator perform the tasks of backup, archiving, and recovery more easily - and in less time - by disguising the actual complexity of a Storage Area Network (SAN). Administrators can implement virtualization with software applications or by using hardware and software hybrid appliances. The servers connected to the storage system aren't aware of where the data really is. Storage virtualization is sometimes described as "abstracting the logical storage from the physical storage".

**Network Virtualization:** Network virtualization is a method of combining the available resources in a network by splitting up the available bandwidth into channels, each of which is independent from the others, and each of which can be assigned (or reassigned) to a particular server or device in real time. This allows a large physical network to be provisioned into multiple smaller logical networks and conversely allows multiple physical LANs to be combined into a larger logical network. This behaviour allows administrators to improve network traffic control, enterprise and security. Network virtualization is intended to optimize network speed, reliability, flexibility, scalability, and security.

Various equipment and software vendors offer network virtualization by combining any of the Network hardware such as Switches and Network Interface Cards (NICs); Network elements such as firewalls and load balancers; Networks such as virtual LANs (VLANs); Network storage devices; Network machine-to-machine elements such as telecommunications devices; Network mobile elements such as laptop computers, tablet computers, smart phones and Network media such as Ethernet and Fibre Channel.

(ix)

Serial Transmission	Parallel Transmission
In this, the data bits are transmitted serially one after another.	In this, the data bits are transmitted simultaneously.
Data is transmitted over a single wire.	Data is transmitted over 8 different wires.
It is a cheaper mode of transferring data.	It is relatively expensive mode of transferring data.
It is useful for long distance data transmissions.	Not practical for long distance communications as it uses parallel paths, so cross talk may occur.
It is relatively slower.	It is relatively faster.

(x) Hardware Resources: Hardware resources involve machines and media wherein Machines include computers, video monitors, magnetic disk drives, printers, optical scanners and Media includes floppy disks, magnetic tape, optical disks, plastic cards, paper forms.

**Software Resources:** Software resources include programs and procedures wherein Programs include operating system programs, spreadsheet programs, word processing programs, payroll programs and Procedures include data entry procedures, error correction procedures, pay-check distribution procedures.

- 3. (i) Information as a Business Asset: Information becomes an asset for an organization if it is useful, digital, accessible, relevant, accurate, trust-worthy, searchable, understandable, spatially enabled and shareable at the time when required. Information can be treated as a valuable commodity if it can be used effectively. Information that is accurate and encompassing will allow decision-makers to better an organization's performance. Without reliable information, the decision-making process can be badly hampered and an informed decision impossible to make. Where a business is geographically dispersed, with servers hosted in different locations, or a business has a network of applications, there can also be the obstacle of replicating data across the network. In short, without effectively management of information the result can be information chaos.
  - (ii) Data Processing Cycle: In the Data Processing Cycle, the processes of business activities about which data must be collected and processed are identified. Further, the activities, resources affected by that event, the agents who participate in that event and the event of interest could be the input, output, processing, storage, alerts, controls and feedback. It consists of following basic steps with alerts, controls and feedback at each step:
    - Data input: This involves the activities like capturing the data, implementing control procedures, recording in journals, posting to ledgers and preparation of reports.

- Data storage: This involves organizing the data in master file or reference file
  of an automated system for easy and efficient access.
- **Data processing:** This involves addition, deletion and updating of the data in the transaction file, master file or reference file.
- **Information output:** This involves generation of documents and managerial reports in printable or electronic form for addressing queries, to control operational activities and help the management in decision making.
- (iii) System Implementation Phase in System Development Life Cycle (SDLC): This phase examines that 'How will the Solution be put into effect'? This phase involves Coding and Testing of the system; Acquisition of hardware and software; and either installation of the new system or conversion of the old system to the new one. The phase includes Installing the new hardware; Training the users on the new system; and Conversion of master files to the new system or creation of new master files.
- (iv) Business-to-Consumer (B2C) e-Commerce: Business-to-Consumer (B2C) e-Commerce is defined as the exchange of services, information and/or products from a business to a consumer, as opposed to between one business and another. Typically, a B2C e-Commerce business has a virtual store front for consumers to purchase goods and services eliminating the need to physically view or pick up the merchandise. The Business-to-Consumer (B2C) model can save time and money by doing business electronically but customers must be provided with safe and secure as well as easy-to-use and convenient options when it comes to paying for merchandise. This minimizes internal costs created by inefficient and ineffective supply chains and creates reduces end prices for the customers. Advantages of B2C E-Commerce include faster and more convenient shopping; instant offerings and prices; integration of Call centres with the website and enhanced buying experience due to broadband telecommunications.
- (v) Training Management: It is one of the key modules under Human Resource Management Systems (HRMS) in which training programs can be entered with future dates that allow managers to track progress of employees through these programs, examine the results of courses taken and reschedule specific courses when needed. The module tracks the trainer or training organization; costs associated with training schedules, tracks training locations and required supplies and equipment and registered attendees. All employees are linked to a skills profile. The skill profile lists the skills brought with them and acquired through training after they were hired. The skills profile is updated automatically through the training module.
- (vi) Source based Application: This refers to the sources from where the application has been bought.
  - Custom-built Application: Whether they are for one function or integrate
    processes across the company like an Enterprise Resource Planning (ERP) –
    these are the easiest ones to customize. These applications can however be

- configured to meet a particular company's requirements. Customization involves additional coding while configuration is based on settings which are inputted by the user. Example Billing, Inventory, Attendance etc.
- Packaged Software: These are the standard applications which are not free but are licensed. Customization to suit business requirements may or may not be allowed. For Example -Tally, Oracle 9i, etc.
- Leased application: A new method for getting applications is being used today, i.e. leased applications, where user pays fixed rent for using the application for agreed terms. Many specialized vendors provide users with option to get their job done by paying monthly rent; this is referred to as outsourcing.
- (vii) MS Office Applications: These are various office automation systems made available by Microsoft Corporation which include MS Word, MS Excel, MS Power Point, MS Access, etc. Each of these software help to achieve automation of various tasks in the office. They have features such as customized ribbon, backstage view, built-in graphics toolset, enhanced security, excel spark lines, pivot for Excel, Power Point broadcast, Power Point compression, paste, preview and outlook conversation view.
- (viii) Credit Card Transaction: In a credit card transaction, the consumer presents preliminary proof of his ability to pay by presenting his credit card number to the merchant. The merchant can verify this with the bank, and create a purchase slip for the consumer to endorse. The merchant then uses this purchase slip to collect funds from the bank, and, on the next billing cycle, the consumer receives a statement from the bank with a record of the transaction. Authorization; Batching; Clearing; and Funding are the steps that are involved in any credit card transaction.
- (ix) Principle of Least Privilege: This is a fundamental principle of Information Security which refers to give only those privileges to a user account, which are essential to that user's work. For example A backup user does not need to install software; hence, the backup user has rights only to run backup and backup-related applications. Any other privileges, such as installing new software, should be blocked. The principle applies also to a personal computer user, who usually does work in a normal user account, and opens a privileged, password protected account (that is, a super user) only when the situation absolutely demands it. When applied to users, it refers to the concept that all user accounts at all times should run with as few privileges as possible, and also launch applications with as few privileges as possible. The principle of least privilege is widely recognized as an important design consideration in enhancing the protection of data and functionality from any kind of compromises towards security.
- (x) Micro Architecture: Micro Architecture, also known as Computer Organization, is a lower level detailed description of the system that is sufficient for completely

describing the operation of all parts of the computing system, and how they are inter-connected and inter-operate in order to implement the Information Systems Architecture (ISA). This describes the data paths, data processing elements and data storage elements, and describes how they should implement ISA. The Micro architecture can be seen as how the ISA does and what it does. It's how everything is ultimately organized on the chip or processor.

- **4.** The various types of relationships that exist in an E-R Diagram are as follows:
  - (i) One-to-One relationship (1:1) A One-to-One relationship is shown on the diagram by a line connecting the two entities.

**Example:** A student has one and only one Report card. Each report card is owned by one and only one student.



(ii) One-to-Many relationship (1:N) – A One-to-Many relationship is shown on the diagram by a line connecting the two entities with a "crow's foot" symbol denoting the 'many' end of the relationship.

**Example:** A student may borrow some books from the library. A book in the library may be borrowed by at most a student.



(iii) Many-to-One relationship (M:1) – It is the reverse of One-to-Many relationship. **Example:** As in two or more parent records to a single child record.



(iv) Many-to-Many relationships (M:N) - A Many-to-Many relationship is shown on the diagram by a line connecting the two entities with 'crow's foot' symbols at both ends.

**Example:** A student enrolls in atleast one course. A course is enrolled by at least one student.



- **5.** Central Processing Unit (CPU) consists of the following three functional units:
  - **Control Unit (CU):** Control Unit controls the flow of data and instruction to and from memory, interprets the instruction and controls which tasks to execute and when.
  - Arithmetic and Logical Unit (ALU): This performs arithmetic operations such as addition, subtraction, multiplication, and logical comparison of numbers: Equal to, Greater than, Less than, etc.

- Registers: These are high speed memory units within CPU for storing small amount of data (mostly 32 or 64 bits). Registers could be:
  - Accumulators: They can keep running totals of arithmetic values.
  - Address Registers: They can store memory addresses which tell the CPU as to where in the memory an instruction is located.
  - Storage Registers: They can temporarily store data that is being sent to or coming from the system memory.
  - o **Miscellaneous:** These are used for several functions for general purpose.
- 6. Peer-to-Peer Network: A Peer-to-Peer (P2P) network is created with two or more PCs connected together and share resources without going through a separate server computer. A P2P network can be an ad-hoc connection a couple of computers connected via a universal serial bus to transfer files. A P2P network also can be a permanent infrastructure that links half-dozen computers in a small office over copper wires. Example Napster, Freenet etc.

# Characteristics of Peer to Peer (P2P) network

- The prime objective goal of a P2P (Peer-to-Peer) file-sharing network is that many computers mainly the home computers come together and pool their resources to form a content distribution system. They do not need to be machines in Internet data centers.
- The computers are called peers because each one can alternately act as a client to another peer, fetching its content, and as a server, providing content to other peers.
- Though there is no dedicated infrastructure, P2P networks handle a very high volume of file sharing traffic by distributing the load across many computers on the Internet. Everyone participates in the task of distributing content, and there is often no central point of control.
- Configured computers in P2P workgroups allow sharing of files, printers and other resources across all of the devices. Peer networks allow data to be shared easily in both directions, whether for downloads to the computer or uploads from the computer.
- Because they do not rely exclusively on central servers, P2P networks both scale better and are more resilient than client-server networks in case of failures or traffic bottlenecks.
- A P2P network can be a network on a much grander scale in which special protocols and applications set up direct relationships among users over the Internet.

### Advantages of Peer-to-Peer Networks

 Peer-to-Peer Networks are easy and simple to set up and only require a Hub or a Switch to connect all the computers together.

- It is very simple and cost effective.
- If one computer fails to work, all other computers connected to it continue to work.

# **Disadvantages of Peer-to-Peer networks**

- There can be problem in accessing files if computers are not connected properly.
- It does not support connections with too many computers as the performance gets degraded in case of high network size.
- The data security is very poor in this architecture.
- 7. Some of the commercial applications of Artificial Intelligence (AI) are as follows:

## **Decision Support**

- Intelligent work environment that will help you capture the "why" as well as the "what" of engineered design and decision making.
- Intelligent Human–Computer Interface (HCI) systems that can understand spoken language and gestures, and facilitate problem solving by supporting organization wide collaborations to solve particular problems.
- Situation assessment and resource allocation software for uses that range from airlines and airports to logistics centres.

### Information Retrieval

- Al-based Intranet and Internet systems that distill tidal waves of information into simple presentations.
- Natural language technology to retrieve any sort of online information, from text to pictures, videos, maps, and audio clips, in response to English questions.
- Database mining for marketing trend analysis, financial forecasting, and maintenance cost reduction, and more.

## **Virtual Reality**

- X-ray-like vision enabled by enhanced-reality visualization that allows brain surgeons to "see through" intervening tissue to operate, monitor, and evaluate disease progression.
- Automated animation interfaces that allow users to interact with virtual objects via touch (e.g., medical students can "feel" what it's like to stitch severed aortas).

### **Robotics**

- Machine-vision inspections systems for gauging, guiding, identifying, and inspecting products and providing competitive advantage in manufacturing.
- Cutting-edge robotics systems, from micro-robots and hands and legs.

- **8.** Documentation is important to Information Systems for some of the following reasons that are as follows:
  - Depicting how the system works: In computerized systems, the processing is
    electronic and invisible. Therefore documentation is required to help employees
    understand how a system works, assist accountants in designing controls for it,
    demonstrates to managers that it will meet their information needs, and assists
    auditors in understanding the systems that they test and evaluate.
  - Training users: Documentation also includes user guides, manuals, and similar
    operating instructions that help people learn how an Information System operates.
    These documentation aids help train users to operate Information systems
    hardware and software, solve operational problems, and perform their jobs better.
  - Designing new systems: Documentation helps system designers develop new systems in much the same way that blueprints help architects design building, Wellwritten documentation and related graphical systems-design methodologies play key roles in reducing system failures and decreasing the time spent correcting emergency errors.
  - Controlling system development and maintenance costs: Personal computer
    applications typically employ prewritten, off-the-shelf software that is relatively
    reliable and inexpensive. Good documentation helps system designers develop
    object-oriented software, which is software that contains modular, reusable code
    that further avoid writing duplicate programs and facilitate changes when programs
    must be modified later.
  - Standardizing communications with others: Documentation aids such as E-R Diagrams, System Flowcharts, and Data Flow Diagrams are more standardized tools, and they are more likely to be interpreted the same way by all parties viewing them. Thus, documentation tools are important because they help describe an existing or proposed system in a common language and help users communicate with one another about these systems.
  - Auditing Information Systems: Documentation helps depict audit trails, For example- when investigation and Accounting Information system, the auditors typically focus on internal controls. In such circumstances, documentation helps auditors determine the strengths and weaknesses of a system's controls and therefore the scope and complexity of the audit.
  - Documenting business processes: Understanding business processes can lead
    to better systems and better decision. Documentation helps managers better
    understand how their businesses operate what controls are involved or missing from
    critical organizational activities, and how to improve core business activities.
- **9. Business Process Automation:** It may be defined as the automation of business processes which removes the human element from existing business processes by

automating the repetitive or standardized process components. On its own, BPA automates processes that are part of business function.

To achieve this automation, we would need IT infrastructure, hardware and software to manage the same. Further, all the systems have to be networked so that information can flow seamlessly. In addition, the need would be for database so that the data and information can be stored and retrieved in a desired and appropriate manner.

From IT perspective, following IT processes are usually involved in a typical business enterprise:

- ◆ Database access and changes: It provides access to data via ODBC (Open DataBase Connectivity) connections, data updates, and file transfers.
- ◆ File replication and data backup: It protects valuable data by backing up databases and key systems.
- Systems and event log monitoring: It reviews and analyzes the event log and critical systems, and create multistep corrective action, such as restarting a server service. With BPA, these processes run automatically when certain events occur.
- ◆ Job scheduling: It automates processes that perform a variety of daily or unscheduled tasks.
- ◆ **Application integration:** It automates IT and business processes by combining applications that drive business. Complex processes such as database queries, data transformation and spreadsheet integration can be automated.
- File transfers: It can be automated to deliver and retrieve data on set schedules.
- Printing: It is automated to simplify print jobs.
- **10.** Abbreviations used are as follows:

**HCHG:** Hire Charges

DAYS: No. of days bicycle is hired for

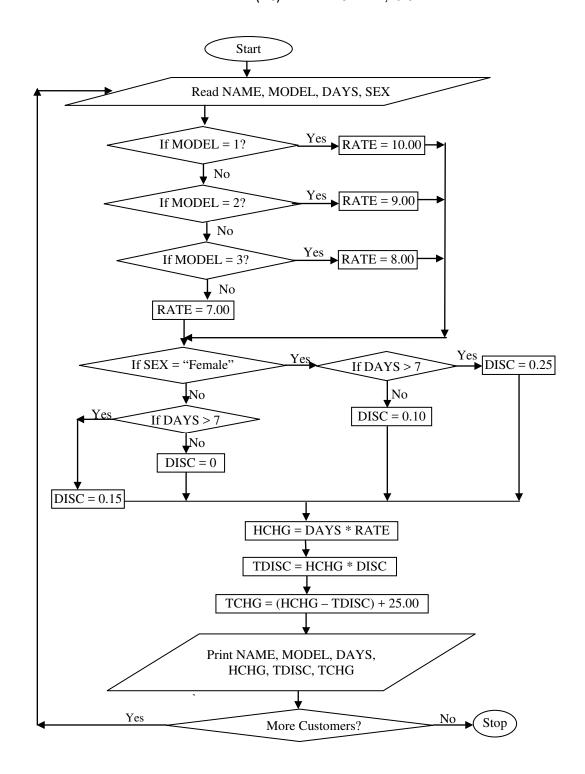
NAME: Name of customer

TCHG: Total Charges

MODEL: Bicycle Model No.

TDISC: Total Discount

The required flowchart is given below:



- 11. On the basis of Audit, the controls are divided into two parts **Managerial controls** and **Application Controls**.
  - Managerial Controls: Managerial functions that must be performed to ensure the development, implementation, operation and maintenance of information systems in a planned and controlled manner in an organization. The controls at this level provide a stable infrastructure in which information systems can be built, operated, and maintained on a day-to-day. Types of Management Subsystem and their description are as follows:
    - **Top Management:** Top management must ensure that information systems function is well managed. It is responsible primarily for long run policy decisions on how Information Systems will be used in the organization.
    - Information Systems Management: IS management has overall responsibility for the planning and control of all information system activities. It also provides advice to top management in relation to long-run policy decision making and translates long-run policies into short-run goals and objectives.
    - Systems Development Management: Systems Development Management is responsible for the design, implementation, and maintenance of application systems.
    - **Programming Management:** It is responsible for programming new system; maintain old systems and providing general systems support software.
    - **Data Administration:** Data administration is responsible for addressing planning and control issues in relation to use of an organization's data.
    - Quality Assurance Management: It is responsible for ensuring information systems development; implementation, operation, and maintenance conform to established quality standards.
    - **Security Administration:** It is responsible for access controls and physical security over the information systems function.
    - **Operations Management:** It is responsible for planning and control of the day-to-day operations of information systems.
  - Application Controls: Application functions need to be in place to accomplish reliable information processing. Types of Application Subsystem and their description are as follows:
    - **Boundary:** Comprises the components that establish the interface between the user and the system.
    - **Input:** Comprises the components that capture, prepare, and enter commands and data into the system.

- Communication: Comprises the components that transmit data among subsystems and systems.
- **Processing:** Comprises the components that perform decision making, computation, classification, ordering, and summarization of data in the system.
- Output: Comprises the components that retrieve and present data to users of the system.
- Database: Comprises the components that define; add; access; modify; and delete data in the system.
- 12. A common way of characterizing network management functions is FCAPS Fault, Configuration, Accounting, Performance and Security. FCAPS is the ISO Telecommunications Management Network model and framework for network management.
  - (i) Fault Management A fault is an event that has a negative significance. The goal of fault management is to recognize, isolate, correct and log faults that occur in the network. Most fault management systems poll the managed objects for error conditions and present this information to the network manager. Fault management identifies and isolates network issues, proposes problem resolution, and subsequently logs the issues and associated resolutions.
  - (ii) Configuration Management Monitors network and system configuration information so that the impact on network operations (hardware and software elements) can be tracked and managed. Network changes, additions, and deletions need to be coordinated with the network management personnel.
  - (iii) Accounting Management Accounting management is concerned with tracking network utilization information, such that individual users, departments, or business units can be appropriately billed or charged for accounting purposes. For non-billed networks, accounting refers to administration whose primary goal is to administer the set of authorized users by establishing users, passwords, and permissions and to administer the operations of the equipment such as by performing software backup and synchronization.
  - (iv) Performance Management Measures and makes network performance data available so that performance can be maintained and acceptable thresholds. It enables the manager to prepare the network for the future, as well as to determine the efficiency of the current network. The network performance addresses the throughput, network response times, packet loss rates, link utilization, percentage utilization, error rates and so forth.
  - (v) Security Management Controls access to network resources as established by organizational security guidelines. Most network management systems address security regarding network hardware, such as someone logging into a router. Security management functions include managing network authentication,

authorization, and auditing, such that both internal and external users only have access to appropriate network resources, configuration and management of network firewalls, intrusion detection systems, and security policies (such as access lists).

Functions that are performed as part of network management accordingly include controlling, planning, allocating, deploying, coordinating, and monitoring the resources of a network, network planning, frequency allocation, predetermined traffic routing to support balancing, cryptographic distribution authorization, configuration management, fault management, security management, management, bandwidth management, Route analytics and accounting management.

- **13. Vulnerability: Vulnerability** is an inherent weakness in the design, configuration, or implementation of a network or system that renders it susceptible to a threat. The following facts are responsible for occurrence of vulnerabilities in the software:
  - ♦ Software Bugs Software bugs are so common that users have developed techniques to work around the consequences, and bugs that make saving work necessary every half an hour or crash the computer every so often are considered to be a normal part of computing. For example buffer overflow, failure to handle exceptional conditions, access validation error, input validation errors are some of the common software flaws.
  - ◆ Timing Windows This problem may occur when a temporary file is exploited by an intruder to gain access to the file, overwrite important data, and use the file as a gateway for advancing further into the system.
  - Insecure default configurations Insecure default configurations occur when vendors use known default passwords to make it as easy as possible for consumers to set up new systems. Unfortunately, most intruders know these passwords and can access systems effortlessly.
  - ◆ Trusting Untrustworthy information This is usually a problem that affects routers, or those computers that connect one network to another. When routers are not programmed to verify that they are receiving information from a unique host, bogus routers can gain access to systems and do damage.
  - End users Generally, users of computer systems are not professionals and are not always security conscious. For example, when the number of passwords of an user increases, user may start writing them down, in the worst case to places from where they are easy to find. In addition to this kind of negligence towards security procedures users do human errors, for example save confidential files to places where they are not properly protected.

- **14.** The classification of Information Systems is as follows:
  - ♦ Strategic-Level Systems: For strategic managers to track and deal with strategic issues, assisting long-range planning. A principle area is tracking changes in the external conditions (market sector, employment levels, share prices, *etc.*) and matching these with the internal conditions of the organization.
  - Management-Level Systems: Used for the monitoring, controlling, decision-making, and administrative activities of middles management. Some of these systems deal with predictions or "what if..." type questions. e.g. "What would happen to our profits if the completion of the new production plant was delayed by 6 months?" Tracking current progress in accord with plans is another major function of systems at this level.
  - Knowledge-Level Systems: These systems support discovery, processing and storage of knowledge and data workers. These further control the flow of paper work and enable group working.
  - Operational-Level Systems: Support operational managers tracking elementary activities. These can include tracking customer orders, invoice tracking, etc. Operational-level systems ensure that business procedures are followed.

The aforementioned Information Systems are used by different set of people and is described as below:

- ♦ Strategic Level: These are senior managers or Top-level managers that hold the titles such as Chief Executive Officers, Chief Financial Officers, Chief Operational Officers, Chief Information Officers and Chair Person of the Board, President, Vice President and Corporate Head Managers take decisions that will affect the entirety of the organization. Top Managers do not direct the day-to-day activities of the firm; rather they set goals for the organization and direct the company to achieve them. Top Managers are ultimately responsible for the performance of the organization, and often, these managers have very visible jobs.
- Management Level: These are Middle Managers that are in the levels below top managers and hold the job titles like General Manager, Regional manager etc. Middle-level Managers are responsible for carrying out the goals set by Top Management. They do so by setting goals for their department and other business units. Middle Managers can motivate and assist First-line Managers achieve business objectives. Middle Managers may also communicate upwards, by offering suggestions and feedback to Top Managers. Because Middle Managers are more involved in the day-to-day workings of a company, they may provide valuable information to Top Managers to help improve the performance of an organization.

- Knowledge Level: These include knowledge and data workers who are selected, recruited and trained in a special manner than the non-knowledge workers. The knowledge resides in the heads of knowledge workers and these are the most precious resource an organization possesses.
- Operational Level: These include Operational Managers or supervisors that are responsible for the daily management of the line workers who actually produce the product or offer the service. There are First-line Managers in every work unit in the organization. Although First-line Managers typically do not set goals for the organization, they have a very strong influence on the company. These are the managers that most employees interact with on a daily basis, and if the managers perform poorly, employees may also perform poorly, may lack motivation, or may leave the company.
- 15. Core Banking Systems: Core Banking Systems are the heart of a bank where CORE stands for "Centralized Online Real-time Environment". Core Banking Systems may be defined as the set of basic software components that manage the services provided by a bank to its customers through its branches (branch network). The absolute bank's branches access applications from centralized data centres. All transactions budge through core systems, which, at an absolute minimum, must remain running and responsive during business hours. Increasingly, these systems are running 24x7 to support Internet banking, global operations, and real time transactions via ATM, Internet, phone, and debit card. The various elements of core banking include Making and servicing loans; Opening new accounts; Processing cash deposits and withdrawals; Processing payments and cheques; Calculating interest; Customer relationship management (CRM) activities; Managing customer accounts; Establishing criteria for minimum balances, interest rates, number of withdrawals allowed and so on; Establishing interest rates; and maintaining records for all the bank's transactions.

Normal core banking functions will include deposit accounts, loans, mortgages and payments. Banks make these services available across multiple channels like ATMs, Internet banking, and branches. Examples of major core banking products include Infosys' Finacle, Nucleus FinnOne and Oracle's Flexcube application (from their acquisition of Indian IT vendor i-flex).

### **SECTION – B: STRATEGIC MANAGEMENT**

## Correct/Incorrect with reasoning

- 1. State with reasons which of the following statements are correct/incorrect:
  - (a) Cooperation is generated automatically in businesses owned by members of same family.
  - (b) The concept of experience curve is relevant for a number of areas in strategic management.
  - (c) Strategic planning gives direction to the organization.
  - (d) The characteristics of strategic management decisions differ depending upon the levels of management of an organisation.
  - (e) Competition adversely hits the organizational growth.
  - (f) Changes in strategy may lead to changes in organizational structure.
  - (g) A strategic vision delineates organisation's aspirations for the business.
  - (h) There are many other reasons for changes in industryother than its position in life cycle.
  - (i) Kieretsus is a loosely-coupled group of companies, usually in related industries.
  - (j) Market penetration is a growth strategy where the business focuses on selling new products into new markets.
  - (k) Benchmarking is a process of one-time improvement in search for competitive advantage.
  - (I) Key success factors vary from industry to industry.
  - (m) Good strategy and proper implementation ensures organisational success

### Differences between the two concepts

- 2. Distinguish between the following:
  - (a) Vertically integrated diversification and Horizontally integrated diversification.
  - (b) TQM and Traditional management practices.
  - (c) Vision and Mission.

### **Short notes**

- 3. Write short notes on the following:
  - (a) Strategic Group Mapping.
  - (b) Role of Global Industries.

- (c) Premise Control.
- (d) Network structure.

#### **Brief answers**

- Briefly answer the following questions:
  - (a) Briefly explain 'shared vision' and 'vision shared'.
  - (b) "Six sigma is not merely a quality initiative, it is a business initiative." Elucidate.
  - (c) Explain briefly the reasons necessary for globalization of companies.
  - (d) Briefly explain the implementation steps in BPR.

# **Descriptive answers**

Chapter 1-Business Environment

- 5. Explain five forces model given by Michael Porter in context of an organization that is manufacturing motor cycles in India.
- 6. It is difficult to determine exactly what business should do in response to a particular situation in the environment. Explain the various strategic approaches for it.
- 7. What is business environment? Briefly explain macro environmental factors that affect an organization's strategy.

Chapter 2-Business Policy and Strategic Management

- 8. What is Corporate Strategy? How would you argue that 'corporate strategy 'ensures the correct alignment of the firm with its environment'?
- 9. "Strategy is partly proactive and partly reactive." Do you agree? Give reasons for your answer.
- 10. Decision making is an important managerial function in strategic management. Discuss. What are the major dimensions of strategic decisions?

Chapter 3-Strategic Analysis

- 11. Discuss GE 9 cell matrix. How is it related to traffic control lights?
- 12. What is SWOT analysis? Discuss its significance?
- 13. Strategists need to assess the industry outlook carefully to decide on attractiveness of business. Discuss the factors to base such assessment and decisions.

### Chapter 4-Strategic Planning

14. Michael E. Porter has suggested three generic strategies. Briefly explain them. What is the basic objective to follow a generic strategy? In what situations can the three strategies be used?

15. A large Textile Mill, which is in the verge of collapse, has approached you to suggest turnaround strategies. What can be the action plan while recommending turnaround strategies for such a firm?

Chapter 5-Formulation of Functional Strategy

- 16. What are strategic roles of a human resource manager in a large manufacturing and distribution company?
- 17. Successful implementation of any project needs additional funds. What are the different sources of raising funds and their impact on the financial strategy which you as a Financial Manager will consider?
- 18. What is logistics strategy? What are the areas to examine while developing a logistics strategy?

Chapter 6-Strategic Implementation and Control

- 19. "Management of internal linkages in the value chain could create competitive advantage in a number of ways". Briefly explain.
- 20. How a corporate culture can be both strength and weakness of an organisation?
- 21. What are the issues to be considered while implementing strategies?

Chapter 7-Reaching Strategic Edge

- 22. Define each of the following and analyse its role in strategic implementation:
  - (1) B.P.R.
  - (2) ERP
  - (3) Benchmarking
- 23. Trace the role of information technology in business process reengineering.
- 24. What is Six Sigma? Briefly discuss the key methodology for adopting six sigma for a new product.

#### SUGGESTED ANSWERS/HINTS

1. (a) Incorrect: Although, cooperation should generate automatically in businesses owned by members of a same family, many times internal strifes and tussles lead to challenges in cooperation. Sometimes, quarrels and conflicts among the managing members of the family on family matters tend to distort their behaviour in management of business and thereby damage its functioning. Family owned organisations often face succession and ownership issues that are tough to resolve and lead fights and divisions.

- (b) Correct: Experience curve results from a variety of factors such as learning effects, economies of scale, product redesign and technological improvements in production. The concept of experience curve is relevant for a number of areas in strategic management. For instance, experience curve is considered a barrier for new firms contemplating entry in an industry. It is also used to build market share and discourage competition.
- (c) Correct: Strategic planning is process of determining organizational strategy. It gives direction to the organization and involves making decisions and allocating resources to pursue the strategy. It is the formal consideration of future course of an organization. It determines where an organization is going over the next year or more and the ways for going there.
- (d) Correct: There are three main strategic levels of management corporate, business and functional. The characteristics of strategic management decisions vary in terms of type, measurability, frequency, relation to present activities, risk, profit potential, cost, time horizon, flexibility, co-operation required differ depending upon the levels of management in an organisation. Functional decisions are taken to bifurcate and implement business strategies that are created within the ambit of corporate strategies.
- (e) Incorrect: All organizations have competition. Multinationals and large organizations clash directly on every level of product and service. Mid-sized and small business also chases same customers and finds that prices and product quality are bounded by the moves of their competitors. Competition can challenge organizations to work better, improve and grow. Lack of competition can make organizations complacent with their present positions.
- (f) Correct: Changes in strategy may require changes in structure as the structure dictates how resources will be allocated. Structure should be designed to facilitate the strategic pursuit of a firm and, therefore, should follow strategy. Without a strategy or reasons for being, companies find it difficult to design an effective structure.
- (g) Correct: A strategic vision delineates organisation's aspirations for the business, providing a panoramic view of the position where the organisation is going. A strategic vision points an organization in a particular direction, charts a strategic path for it to follow in preparing for the future, and moulds organizational identity.
- (h) Correct: There are more causes of industry's changes than its position in the life cycle. All industries are characterized by trends and new developments that gradually produce changes important enough to require a strategic response from participating firms. The life-cycle stages are strongly linked to changes in the overall industry growth rate. Industry and competitive conditions change because forces are dynamic. The most dominant forces are called driving forces because they have

- the biggest influence on what kinds of changes will take place in the industry's structure and competitive environment.
- (i) Correct: Kieretsus is a loosely-coupled group of companies, usually in related industries. It is a Japanese term which is used for large cooperative networks of businesses. Kieretsus members are peers and may own significant amounts of each other's stock and have many board members in common.
- (j) Incorrect: Market penetration is a growth strategy where the business focuses on selling existing products into existing markets. It is achieved by making more sales to present customers without changing products in any major way. Penetration might require greater spending on advertising or personal selling.
- (k) Incorrect: Benchmarking is a process of continuous improvement in search for competitive advantage. Firms can use benchmarking process to achieve improvement in diverse range of management function like maintenance operations, assessment of total manufacturing costs, product development, product distribution, customer services, plant utilisation levels and human resource management.
- (I) Correct: Key success factors vary from industry to industry and even from time to time within the same industry as driving forces and competitive conditions change. Only rarely does an industry have more than three or four key success factors at any one time. And even among these three or four, one or two usually outrank the others in importance.
- (m) Incorrect: Strategic management process does not end when the firm decides what strategies to pursue. There must be a translation of strategic thought into action through the process of implementation. A sound strategy with excellent implementation would lead to organisational success but cannot ensure it. Organisational environment is dynamic and can be hostile jeopardising best of the strategies. It is not feasible to accurately predict the future environmental conditions that have bearing on the success of strategy.
- 2. (a) In vertically integrated diversification, firms opt to engage in businesses that are related to their existing businesses. The firm remains vertically within the same process. Sequence moves forward or backward in the chain and enters specific product/process steps with the intention of making them into new businesses for the firm.
  - On the other hand, horizontal integrated diversificationisthe acquisition of one or more similar business operating at the same stage of the production-marketing chain that is going into complementary products, by-products or taking over competitors' businesses.
  - (b) Total Quality Management is different from traditional management practices, requiring changes in organisational processes, beliefs and attitudes, and

behaviours. The nature of TQM differs from common management practices in many respects. Some of the key differences are as follows:

- (i) Strategic Planning and Management: Quality planning and strategic business planning is indistinguishable in TQM. Customer satisfaction, defect rates and process cycle times receive very high attention on TQM which is not the case in traditional management.
- (ii) Changing Relationships with customers and suppliers: Distinguishable, innovation is essential to meet and exceed customers' needs. In TQM quality is defined as product and services. Traditional management places customers outside of the enterprises and within the domain of marketing and sales.
- (iii) Organizational Structure: TQM is also distinguishable as it views enterprise as a system of interdependent processes. Every process contains subprocesses and is also contained within a higher process.
- (iv) Organizational Change: In TQM the environment in which the enterprise interacts is considered to be changing constantly. Management's job, therefore, is to provide the leadership for continual improvement and innovation in processes and systems, products, and services. TQM recognises the inevitability of external change and focuses on shaping the future.
- (v) **Teamwork:** In TQM, individuals cooperate in team structure such as quality circles, steering committees, and self-directed work teams. Departments work together toward system optimization through cross-functional teamwork.
- (vi) Motivation and Job Design: TQM managers provide leadership and motivation rather than overt intervention in the processes of their subordinates who are viewed as process managers rather than functional specialists.
- (c) The vision describes a future identity while the Mission serves as an on-going and time-independent guide.

The vision statement can galvanize the people to achieve defined objectives, even if they are stretch objectives, provided the vision is specific, measurable, achievable, and relevant and time bound. A mission statement provides a path to realize the vision in line with its values. These statements have a direct bearing on the bottom line and success of the organization.

A mission statement defines the purpose or broader goal for being in existence or in the business and can remain the same for decades if crafted well while a vision statement is more specific in terms of both the future state and the time frame. Vision describes what will be achieved if the organization is successful.

3. (a) Strategic group mapping is a technique for displaying the different markets or competitive positions that rival firms occupy in the industry. A strategic group is a cluster of firms in an industry with similar competitive approaches and market

- positions. An industry contains only one strategic group when all sellers pursue essentially identical strategies and have comparable market positions. It involves plotting firms on a two-variable map using pairs of differentiating characteristics such as price/quality range; geographic coverage and so on.
- (b) The term global industry specifically means an industry where a firm's competitive position in one country is affected by its position in other countries. A global industry is one that by operating in more than one country gains R&D, production, marketing and financial advantages in its costs and reputation that are not available to purely domestic competitors. The global business organisation views the world as one market, minimises the importance of national boundaries, sources material, raises capital and markets wherever it can do the job best. The industries reveals global pattern in today's world include automobiles, television sets, commercial aircrafts and boats, sporting equipment, watches, clothing, semiconductors, copiers and also the transfer of funds.
- (c) Premise control: A strategy is formed on the basis of certain assumptions or premises about the complex and turbulent organizational environment. Premise control is a tool for systematic and continuous monitoring of the environment to verify the validity and accuracy of the premises on which the strategy has been built. It primarily involves monitoring two types of factors:
  - (a) Environmental factors such as economic (inflation, liquidity, interest rates), technology, social and regulatory.
  - (b) Industry factors such as competitors, suppliers, substitutes.
  - It is neither feasible nor desirable to control all types of premises in the same manner. Different premises may require different amount of control. Thus, managers are required to select those premises that are likely to change and would severely impact the functioning of the organization and its strategy.
- (d) A newer and somewhat more radical organizational design, the network structure is an example of what could be termed a "non-structure" by its virtual elimination of in house business functions. Many activities are outsourced. A corporation organized in this manner is often called a virtual organization because it is composed of a series of project groups or collaborations linked by constantly changing nonhierarchical, cobweb-like networks.
  - The network structure becomes most useful when the environment of a firm is unstable and is expected to remain so. Under such conditions, there is usually a strong need for innovation and quick response. Instead of having salaried employees, it may contract with people for a specific project or length of time. Long-term contracts with suppliers and distributors replace services that the company could provide for itself through vertical integration. Electronic markets and sophisticated information systems reduce the transaction costs of the marketplace,

thus justifying a "buy" over a "make" decision. Rather than being located in a single building or area, an organization's business functions are scattered worldwide.

The organization is, in effect, only a shell, with a small headquarters acting as a "broker", electronically connected to some completely owned divisions, partially owned subsidiaries, and other independent companies. In its ultimate form, the network organization is a series of independent firms or business units linked together by computers in an information system that designs, produces, and markets a product or service.

- 4. (a) Individuals in organisations relate themselves with the vision of their organisations in different manner. When the individuals are able to bring organisational vision close to their hearts and minds they have "shared vision". Shared vision is a force that creates a sense of commonality that permeates the organization and gives coherence to diverse activities. However, 'vision shared' shows imposition of vision from the top management. It may demand compliance rather than commitment. For success of organisations having shared vision is better than vision shared.
  - (b) Six Sigma is a total management commitment and philosophy of excellence, customer focus, process improvement. Six Sigma is about making every area of the organization better able to meet the changing needs of customers, markets, and technologies with benefits for employees, customers, and shareholders. So the six sigma is not merely a quality initiative, it is a business initiative.
  - (c) Reasons necessary for Globalization of companies are as follows:
    - The rapid shrinking of time and distance across the globe resulting in faster communication, speedier transportation, growing financial flows and rapid technological changes.
    - ♦ Domestic market is not large enough to absorb whatever is produced. Some European companies have gone global for this reason.
    - Justification of foreign investment keeping in view the size of foreign market.
    - Securing a reliable and cheaper source of raw-materials. Some companies, by contrast, have often ventured overseas to protect old markets or to seek new ones. For example cheap labour in India lure foreign investors.
    - Reducing the high transportation costs by setting up overseas plants that ultimately leads to reducing the higher ratio of the unit cost to the selling price per unit.
  - (d) Companies begin business process re-engineering by creating a plan of action based on the gap between the current and proposed processes, technologies and structures. Steps usually followed to implement BPR are as follows:
    - (i) Determining objectives and framework: Objectives are the desired end results of the redesign process which the management and organization

- attempts to achieve. It helps in building a comprehensive foundation for the reengineering process.
- (ii) Identify customers and determine their needs: The designers have to understand customers their profile, their steps in acquiring, using and disposing a product. The purpose is to redesign business process that clearly provides added value to the customer.
- (iii) Study the existing process: The existing processes will provide an important base for the redesigners.
- (iv) Formulate a redesign process plan: Formulation of redesign plan is the real crux of the reengineering efforts. Customer focused redesign concepts are identified and formulated.
- (v) Implement the redesign: Implementation of the redesigned process and application of other knowledge gained from the previous steps is key to achieve dramatic improvements.
- 5. Michael Porter Five forces model holds that the state of competition in an industry is a composite of competitive pressures in five areas. These help in systematically diagnosing the significant competitive pressures in the market and assessing their strength and importance.

The Motor Cycle industry is highly competitive with many manufactures including Bajaj Auto, Hero MotoCorp, Royal Enfield, TVS Motor, etc. These are vying for same customers.

- 1. Threat of new entrants: New entrants are powerful source of competition. The new capacity and product range they bring in throw up new competitive pressure. In the motor cycle industry there is always a probability of entry of new firms.
- 2. Bargaining power of customers: The bargaining power of the buyers influences not only the prices that the producer can charge but can also influence costs and investments. Customers in the motor cycle industry are quite fragmented. While they may not have significant collaborative bargaining power, individually they always try to negotiate to get better rates.
- 3. Bargaining power of suppliers: Suppliers, particularly when they are limited in numbers, exercise considerable bargaining power. In motor cycle industry, this bargaining power will be low from suppliers of routine items such as nut and bolts. In case of specialised items such as engines the suppliers may exert considerable bargaining power.
- 4. Rivalry among current players: The rivalry among existing players is normally understood as competition. Competitors influence strategic decisions at different strategic levels. This rivalry is often intense in motor cycle industry with strong advertising, promotion schemes, easy finance and so on.

- 5. Threats from substitutes: Substitute products are a latent source of competition in an industry. Substitute products offering a price advantage and/or performance improvement to the consumer can drastically alter the competitive character of an industry. Motor cycles compete with scooters, mopeds, cars and other mode of commuting. Tata Nano car was initially targeted as an alternative to motor cycles. Availability of effective public transport can also impact the industry.
- 6. The business organization and its many environments have innumerous interrelationship that at times it becomes difficult to determine exactly where the organization ends and where its environment begins. It is also difficult to determine exactly what business should do in response to a particular situation in the environment. Strategically, the businesses should make efforts to exploit the opportunity and avoid the threats.

In this context following are the approaches:

- (i) Least resistance: Some businesses just manage to survive by way of coping with their changing external environments. They are simple goal-maintaining units. They are very passive in their behaviour and are solely guided by the signals of the external environment. They are not ambitious but are content with taking simple paths of least resistance in their goal-seeking and resource transforming behaviour.
- (ii) **Proceed with caution:** At the next level, are the businesses that take an intelligent interest to adapt with the changing external environment. They seek to monitor the changes in that environment, analyse their impact on their own goals and activities and translate their assessment in terms of specific strategies for survival, stability and strength. This is a sophisticated strategy than to wait for changes to occur and then take corrective-adaptive action.
- (iii) Dynamic response: At a still higher sophisticated level, are those businesses that regard the external environmental forces as partially manageable and controllable by their actions. Their feedback systems are highly dynamic and powerful. They not merely recognise and ward off threats; they convert threats into opportunities. They are highly conscious and confident of their own strengths and the weaknesses of their external environmental 'adversaries'. They generate a contingent set of alternative courses of action to be picked up in tune with the changing environment.
- 7. Environment is sum of several external and internal forces that affect the functioning of business. Macro environment is explained as one which is largely external to the enterprise and thus beyond the direct influence and control of the organization, but which exerts powerful influence over its functioning. Important elements of macro environment are:
  - Demographic environment: The term demographics denote characteristics of population. It includes factors such as race, age, income, educational attainment, asset ownership, home ownership, employment status and location. Marketers and

other social scientists often group populations into categories based on demographic variables.

- Economic environment: The economic environment refers to the nature and direction of the economy in which a company competes or may compete. The economic environment includes general economic situation in the region and the nation.
- Political-Legal Environment: This is partly general to all similar enterprises and partly specific to an individual enterprise. There are three important elements in political-legal environment are Government, legal and political.
- Socio-Cultural environment: Socio-cultural environment consist of factors related
  to human relationships and the impact of social attitudes and cultural values which
  has bearing on the business of the organization. The beliefs, values and norms of a
  society determine how individuals and organizations should be interrelated.
- Technological environment: The most important factor, which is controlling and changing people's life, is technology. Technology has changed the ways of how business operates now. Technology can act as both opportunity and threat to a business.
- Global environment: Today's competitive landscape requires that companies must analyse global environment as it is also rapidly changing. The new concept of global village has changed how individuals and organizations relate to each other. Further, new migratory habits of the workforce as well as increased offshore operations are changing the dynamics of business operation.
- **8.** Corporate strategy helps an organisation to achieve and sustain success. It is basically concerned with the choice of businesses, products and markets. It is often correlated with the growth of the firm.
  - Corporate strategy in the first place ensures the growth of the firm and its correct alignment with the environment. Corporate strategies are concerned with the broad and long-term questions of what businesses the organization is in or wants to be in, and what it wants to do with those businesses. They set the overall direction the organization will follow. It serves as the design for filling the strategic planning gap. It also helps to build the relevant competitive advantages. A right fit between the firm and its external environment is the primary contribution of corporate strategy. Basically the purpose of corporate strategy is to harness the opportunities available in the environment and countering the threats embedded therein. With the help of corporate strategy, organizations match their unique capabilities with the external environment so as to achieve its vision and mission.
- **9.** Yes, strategy is partly proactive and partly reactive. In proactive strategy, organizations willanalyze possible environmental scenarios and create strategic framework after proper planning, set procedures and work on these strategies in a predetermined manner.

However, in reality no company can forecast both internal and external environment exactly. Everything cannot be planned in advance. It is not possible to anticipate moves of rival firms, consumer behaviour, evolving technologies and so on. There can be significant deviations between what was visualized and what actually happens.

Strategies need to be attuned or modified in light of possible environmental changes. There can be significant or major strategic changes when the environment demands. Reactive strategy is triggered by the changes in the environment and provides ways and means to cope with the negative factors or take advantage of emerging opportunities.

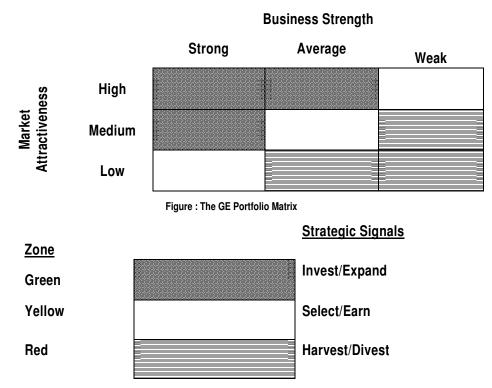
10. Decision making is a managerial process and function of choosing a particular course of action out of several alternative courses for the purpose of accomplishment of the organizational goals. There are a number of major and minor decisions that an organisation takes. Strategic decisions are different from other decisions which are taken at various levels of the organization during day-to-day working of organizations. Strategic decisions are taken at the top level and have organisation wide impact. They are critical as they charter the future of organisations.

The major dimensions of strategic decisions are given below:

- Strategic issues require top-management decisions: Strategic issues involve thinking in totality of the organizations and also there is lot of risk involved. Hence, problems calling for strategic decisions require to be considered by top management.
- Strategic issues involve the allocation of large amounts of company resources: It
  may require huge financial investment to venture into a new area of business or the
  organization may require huge number of manpower with new set of skills in them.
- Strategic issues are likely to have a significant impact on the long term prosperity of the firm:Generally the results of strategic implementation are seen on a long term basis and not immediately.
- Strategic issues are future oriented:Strategic thinking involves predicting the future environmental conditions and how to orient for the changed conditions.
- ♦ Strategic issues usually have major multifunctional or multi-business consequences: As they involve organization in totality they affect different sections of the organization with varying degree.
- Strategic issues necessitate consideration of factors in the firm's external environment: Strategic focus in organization involves orienting its internal environment to the changes of external environment.
- **11.** GE 9 cells matrix, is a business model for portfolio analysis. In portfolio analysis top management views its product lines and business units as a series of investments from which it expects returns.

The strategic planning approach in this model has been linked to traffic control lights. The lights that are used at crossings to manage traffic are: green for go, amber or yellow for caution, and red for stop.

This model uses two factors while taking strategic decisions: Business Strength and Market Attractiveness. The vertical axis indicates market attractiveness and the horizontal axis shows the business strength in the industry. The market attractiveness is measured by a number of factors that includes size of market, its growth, competitions and other factors of the market. On the other hand business strength is measured by considering, market share, its growth, brand image, customer loyalty, management competence and other business related factors. Products and businesses are fitted in matrix as follows:



If a product falls in the green section, the business is at advantageous position. To reap the benefits, the strategic decision can be to expand, to invest and grow. If a product is in the amber or yellow zone, it needs caution and managerial discretion is called for making the strategic choices. If a product is in the red zone, it will eventually lead to losses that would make things difficult for organisations. In such cases, the appropriate strategy should be retrenchment, divestment or liquidation.

**12.** The comparison of strengths, weaknesses, opportunities, and threats is normally referred to as a SWOT analysis

- Strength: Strength is an inherent capability of the organization which it can use to gain strategic advantage over its competitors.
- ♦ Weakness: A weakness is an inherent limitation or constraint of the organization which creates strategic disadvantage to it.
- Opportunity: An opportunity is a favourable condition in the organisation's environment which enables it to strengthen its position.
- ◆ Threat: A threat is an unfavourable condition in the organisation's environment which causes a risk for, or damage to, the organisation's position.

The significance of SWOT analysis lies in the following points:

- ◆ It provides a logical framework: It helps in systematic and sound thrashing of issues having bearing on the business situation, generation of alternative strategies and the choice of a strategy.
- ◆ It presents a comparative account: SWOT analysis presents the information about both external and internal environment in a structured form where it is possible to compare external opportunities and threats with internal strengths and weaknesses.
- ◆ It guides the strategist in strategy identification: It is natural that a strategist faces problem of mismatch in the four patterns. It is possible that the organization may have several opportunities and some serious threats. In such situations, SWOT analysis guides the strategist to think of overall position of the organization that helps to identify the major purpose of the strategy under focus.
- 13. The final step of industry and competitive analysis is to draw conclusions about the relative attractiveness or unattractiveness of the industry, both near-term and long-term. Company strategists are obligated to assess the industry outlook carefully, deciding whether industry and competitive conditions present an attractive business opportunity for the organisation or whether its growth and profit prospects are gloomy.

The important factors on which to base such conclusions include:

- The industry's growth potential.
- Whether competition permits adequate profitability?
- Whether industry profitability will be favourable?
- Strength of competitive position in the industry.
- Potential to capitalize on weaknesses of rivals
- Ability to defend against counteracting industrial factors.
- Degree of future risk and uncertainty in industry.
- Severity of problems confronting industry.
- Synergistical benefits of remaining in industry.

As a general proposition, if an industry's overall profit prospects are above average, the industry can be considered attractive; if its profit prospects are below average, it is unattractive. However, it is a mistake to think of industries as being attractive or unattractive to all industry participants and all potential entrants. Attractiveness is relative, not absolute.

- **14.** According to Porter, strategies allow organizations to gain competitive advantage from three different bases: cost leadership, differentiation, and focus. These bases form different generic strategies as follows:
  - Cost leadership emphasizes producing standardized products at a very low perunit cost for consumers who are price-sensitive. It frequently results from productivity increases and aggressive pursuit of cost reduction throughout the development, production, marketing, and distribution processes. It allows a firm to earn higher profits than its competitors.
  - Differentiation is a strategy aimed at producing products and services considered unique industry wide and directed at consumers who are relatively price-insensitive. It concerns with distinguishing a product/service from that of its competitors through unique design features, technological leadership, unique uses of products and attributes like quality, environmental impact and customer service.
  - Focus means producing products and services that fulfil the specific needs of small groups of consumers. It involves selecting or focussing a market or customer segment in which to operate.

The basic purpose of following a generic strategy is to gain competitive advantage so as to ensure long-time survival and growth.

Situations under which these generic strategies can be used are:

**Cost Leadership** - When the market is price-sensitive, not much room is left for differentiation. Cost leadership is a better option when buyers do not care much about differences between the brands.

**Differentiation** – This strategy is suitable when the customers want or can get attracted to specific attribute(s) of the products. It is directed towards creating separate market with a product with different attribute(s). The strategy is useful in a perfectly competitive market where all products look similar.

**Focus** - Smaller firms may compete on a focus basis. When the customers have distinctive preferences or requirements and the rival firms are not attempting to specialise in the same target segment.

**15.** A textile mill which is on the verge of collapse should carefully analyse its present position, gravity of problems, whether there exist ways to overcome these problems, available resourcesand so on. The action plan for turnaround strategy can be as follows:

Stage One – Assessment of current problems: The first step is to assess the current problems and get to the root causes and the extent of damage the problem has caused. Once the problems are identified, the resources should be focused toward those areas essential to efficiently work on correcting and repairing any immediate issues. The problems can be internal such as low morale of workers in the textile or environment driven such as huge influx of cheap cloth from foreign markets.

Stage Two – Analyze the situation and develop a strategic plan: Before you make any major changes; determine the chances of the business's survival. Identify appropriate strategies and develop a preliminary action plan. For this one should look for the viable core businesses, adequate bridge financing and available organizational resources. Analyze the strengths and weaknesses in the areas of competitive position. Once major problems and opportunities are identified, develop a strategic plan with specific goals and detailed functional actions.

Stage Three – Implementing an emergency action plan: If the organization is in a critical stage, an appropriate action plan must be developed to stop the bleeding and enable the organization to survive. The plan typically includes human resource, financial, marketing and operations actions to restructure debts, improve working capital, reduce costs, improve budgeting practices, prune product lines and accelerate high potential products. A positive operating cash flow must be established as quickly as possible and enough funds to implement the turnaround strategies must be raised.

Stage Four – Restructuring the business: The financial state of the organization's core business is particularly important. If the core business is irreparably damaged, then the outlook for the entire organization may be bleak. Prepare cash forecasts, analyze assets and debts, review profits and analyze other key financial functions to position the organization for rapid improvement.

During the turnaround, the "product mix" may be changed, requiring the organization to do some repositioning. The 'people mix' is another important ingredient in the organization's competitive effectiveness.

Stage Five – Returning to normal: In the final stage of turnaround strategy process, the organization should begin to show signs of profitability, return on investments and enhancing economic value-added. Emphasis is placed on a number of strategic efforts such as carefully adding new products and improving customer service, creating alliances with other organizations, increasing the market share, etc.

- **16.** The prominent areas where the human resource manager can play strategic role are as follows:
  - Providing purposeful direction: The human resource management must be able
    to lead people and the organization towards the desired direction involving people.
    The management has to ensure harmony between organisational objectives and
    individual objectives. Objectives are specific aims which must be in the line with the

goal of the organization and the all actions of each person must be consistent with them.

- 2. **Creating competitive atmosphere:** In the present business environment, maintaining competitive position or gains is an important objective of any business. Having a highly committed and competent workforce is very important for getting a competitively advantageous position.
- 3. **Facilitation of change:** The human resource manager will be more concerned about furthering the organization not just maintaining it. He has to devote more time to promote acceptance of change rather than maintaining the status quo.
- 4. **Diversion of workforce:** In a modern organization, management of diverse workforce is a great challenge. Workforce diversity can be observed in terms of male and female, young and old, educated and uneducated, unskilled and professional employee and so on. Maintaining a congenial healthy work environment is a challenge for HR Manager. Motivation, maintaining morale and commitment are some of the key task that a HR manager has to perform.
- 5. **Empowerment of human resources:** Empowerment involves giving more power to those who, at present, have little control what they do and little ability to influence the decisions being made around them.
- 6. **Building core competency:** The human resource manager has an important role to play in developing core competency by the firm. A core competence is a unique strength of an organization which may not be shared by others. Organization of business around core competence implies leveraging the limited resources of a firm. It needs creative, courageous and dynamic leadership having faith in organization's human resources.
- 7. Development of works ethics and culture: A vibrant work culture will have to be developed in the organizations to create an atmosphere of trust among people and to encourage creative ideas by the people. Far reaching changes with the help of technical knowledge will be required for this purpose.
- 17. Successful strategy implementation often requires additional capital. Besides net profit from operations and the sale of assets, two basic sources of capital for an organization are debt and equity. Being a financial manager to determine an appropriate mix of debt and equity in a firm's capital structure can be vital to successful strategy implementation. Fixed debt obligations generally must be met, regardless of circumstances. This does not mean that stock issuances are always better than debt for raising capital. If ordinary stock is issued to finance strategy implementation; ownership and control of the enterprise are diluted. This can be a serious concern in today's business environment of hostile takeovers, mergers, and acquisitions.

The major factors regarding which strategies have to be made by a financial manager are: capital structure; procurement of capital and working capital borrowings; reserves

and surplus as sources of funds; and relationship with lenders, banks and financial institutions. Strategies related to the sources of funds are important since they determine how financial resources will be made available for the implementation of strategies. Organizations have a range of alternatives regarding the sources of funds. While one company may rely on external borrowings, another may follow a policy of internal financing.

**18.** Management of logistics is a process that integrates the flow of supplies into, through and out of an organization to achieve a level of service that facilitate movement and availability of materials in a proper manner. When a company creates a logistics strategy it is defining the service levels at which its logistics is smooth and is cost effective.

A company may develop a number of logistics strategies for specific product lines, specific countries or specific customers because of constant changes in supply chains. There are different areas that should be examined for each company that should be considered and should include:

- ◆ **Transportation:** Does the current transportation strategies help service levels required by the organisation?
- Outsourcing: Areas of outsourcing of logistics function are to be identified. The
  effect of partnership with external service providers on the desired service level of
  organisation is also to be examined.
- Competitors: Review the procedures adopted by competitors. It is also to be judged whether adopting the procedures followed by the competitors will be overall beneficial to the organisation. This will also help in identifying the areas that may be avoided.
- Availability of information: The information regarding logistics should be timely and accurate. If the data is inaccurate then the decisions that are made will be incorrect. With the newer technologies it is possible to maintain information on movement of fleets and materials on real time basis.
- ♦ Strategic uniformity: The objectives of the logistics should be in line with overall objectives and strategies of the organisation. They should aid in the accomplishment of major strategies of the business organisation.
- **19.** The management of internal linkages in the value chain could create competitive advantage in a number of ways:
  - There may be important linkages between the primary activities. For example, a decision to hold high levels of finished stock might ease production scheduling problems and provide for a faster response time to the customer. However, an assessment needs to be made whether the value added to the customer by this faster response through holding stocks is greater than the added cost.

- ◆ It is easy to miss this issue of managing linkages between primary activities in an analysis if, for example, the organization's competences in marketing activities and operations are assessed separately. The operations may look good because they are geared to high-volume, low-variety, low-unit-cost production. However, at the same time, the marketing team may be selling speed, flexibility and variety to the customers. So competence in separate activities need to be compatible.
- ◆ The management of the linkages between a primary activity and a support activity may be the basis of a core competence. It may be key investments in systems or infrastructure which provides the basis on which the company outperforms competition. Computer-based systems have been exploited in many different types of service organization and have fundamentally transformed the customer experience.
- Linkages between different support activities may also be the basis of core competences. For example, the extent to which human resource development is in tune with new technologies has been a key feature in the implementation of new production and office technologies. Many companies have failed to become competent in managing this linkage properly and have lost out competitively.
- 20. The most important phenomenon which often distinguishes one organisation with another is its corporate culture. Corporate culture refers to a Company's values, beliefs, business principles, traditions, and ways of operating and internal work environment. Every corporation has a culture that exerts powerful influences on the behaviour of managers.
  - **As a Strength:** Culture can facilitate communication, decision making and control and instil cooperation and commitment. An organization's culture could be strong and cohesive when it conducts its business according to clear and explicit set of principle and values, which the management devotes considerable time to communicating to employees and which values are shared widely across the organisation.
  - **As a Weakness:** Culture, as a weakness can obstruct the smooth implementation of strategy by creating resistance to change. An organization's culture could be characterised as weak when many sub-cultures exists, few values and behavioural norms are shared and traditions are rare. In such organizations, employees do not have a sense of commitment, loyalty and sense of identity.
- 21. The different issues involved in strategy implementation cover practically everything that is included in the discipline of management studies. A strategist, therefore, has to bring to his or her task a wide range of knowledge, skills, attitudes, and abilities. The implementation tasks put to test the strategists' abilities to allocate resources, design structures, formulate functional policies, and take into account the leadership styles required, besides dealing with various other issues.
  - ◆ The strategic plan devised by the organization proposes the manner in which the strategies could be put into action. Strategies, by themselves, do not lead to action.

- Strategies should lead to plans. For instance, if stability strategies have been formulated, they may lead to the formulation of various plans. Plans result in different kinds of programmes. A programme is a broad term, which includes goals, policies, procedures, rules, and steps to be taken in putting a plan into action.
- Programmes lead to the formulation of projects. A project is a highly specific programme for which the time schedule and costs are predetermined. It requires allocation of funds based on capital budgeting by organizations.
- Projects create the needed infrastructure for the day-to-day operations in an organization. They may be used for setting up new or additional plants, modernising the existing facilities, installation of newer systems, and for several other activities that are needed for the implementation of strategies.

Implementation of strategies is not limited to formulation of plans, programmes, and projects. Projects would also require resources. After that is provided, it would be essential to see that a proper organizational structure is designed, systems are installed, functional policies are devised, and various behavioural inputs are provided so that plans may work.

Given below in sequential manner the issues in strategy implementation which are to be considered:

- Project implementation
- Procedural implementation
- Resource allocation
- Structural implementation
- ◆ Functional implementation
- Behavioural implementation
- **22.** (1) BPR: BPR stands for business process reengineering. It refers to the analysis and redesign of workflows both within and between the organisation and the external entities. Its objective is to improve performance in terms of time, cost, quality, and responsiveness to customers. It implies giving up old practices and adopting the improved ones. It is an effective tool of realising new strategies.
  - Improving business processes is paramount for businesses to stay competitive in today's marketplace. New technologies are rapidly bringing new capabilities to businesses, thereby raising the strategical options and the need to improve business processes dramatically. Even the competition has become harder. In today's market place, major changes are required to just stay even.
  - (2) ERP: ERP stand for enterprise resource planning which is an IT based system linking isolated information centres across the organisation into an integrated enterprise wide structured functional and activity bases. ERP is successor to MRP

systems (material requirements and manufacturing resource planning systems). ERP is used for strengthening the procurement and management of input factors.

Modern ERP systems deliver end-to-end capabilities to support the entire performance management of an organisation. It helps in consolidated financial reporting, financial management, planning, budgeting, performance management and so on.

(3) **Benchmarking:** It is a process of finding the best practices within and outside the industry to which an organisation belongs. Knowledge of the best helps in standards setting and finding ways to match or even surpass own performances with the best performances.

Benchmarking is a process of continuous improvement in search for competitive advantage. Firms can use benchmarking process to achieve improvement in diverse range of management function like maintenance operations, assessment of total manufacturing costs, product development, product distribution, customer services, plant utilisation levels and human resource management

23. The Role of IT in BPR: The accelerating pace at which information technology has developed during the past few years had a very large impact in the transformation of business processes. Various studies have conclusively established the role of information technology in the transformation of business processes. Information technology is playing a significant role in changing the business processes during the years to come, has been established beyond doubt.

A reengineered business process, characterized by IT-assisted speed, accuracy, adaptability and integration of data and service points, is focused on meeting the customer needs and expectation quickly and adequately, thereby enhancing his/her satisfaction level. With the help of tools of information technology organizations can modify their processes to make them automatic, simpler, time saving. Thus IT can bring efficiency and effectiveness in the functioning of business.

24. Primarily six sigma means maintenance of the desired quality in processes and end products. It is a highly disciplined process that helps in developing and delivering near-perfect products and services. Improvements in these areas usually represent dramatic cost savings to businesses, as well as opportunities to retain customers, capture new markets, and build a reputation for top performing products and services.

For implementing sixsigma, the key methodology for adopting six sigma for a new product is known as DMADV.

DMADV is an acronym for Define, Measure, Analyze, Design, and Verify. DMADV is a strategy for designing new products, processes and services.

 Define: As in case of DMAIC six sigma experts have to formally define goals of the design activity that are consistent with strategy of the organization and the demands of the customer.

- Measure: Next identify the factors that are critical to quality (CTQs). Measure factors such as product capabilities and production process capability. Also assess the risks involved.
- ♦ Analyze: Develop and design alternatives. Create high-level design and evaluate to select the best design.
- Design: Develop details of design and optimise it. Verify designs may require using techniques such as simulations.
- Verify: Verify designs through simulations or pilot runs. Verified and implemented processes are handed over to the process owners.