

Test Series: August, 2016

**MOCK TEST PAPER – 1**  
**INTERMEDIATE (IPC) : GROUP – II**  
**PAPER – 5: ADVANCED ACCOUNTING**

*Question No. 1 is compulsory.*

*Answer any **five** questions from the remaining **six** questions.*

*Wherever necessary suitable assumptions may be made and disclosed by way of a note.*

*Working Notes should form part of the answer.*

**(Time allowed: Three hours)**

**(Maximum marks: 100)**

1. (a) On 1.4.2013, ABC Ltd. received Government grant of Rs. 300 lakhs for acquisition of machinery costing Rs. 1,500 lakhs. The grant was credited to the cost of the asset. The life of the machinery is 5 years. The machinery is depreciated at 20% on WDV basis. The Company had to refund the grant in May 2016 due to non-fulfillment of certain conditions.

How you would deal with the refund of grant in the books of ABC Ltd.?

- (b) Shyam Ltd. (a Public Sector Company) provides consultancy and engineering services to its clients. In the year 2014-15, the Government has set up a commission to decide about the pay revision. The pay will be revised with effect from 1-1-2006 based on the recommendations of the commission. The company makes the provision of Rs. 680 lakhs for pay revision in the financial year 2014-2015 on the estimated basis as the report of the commission is yet to come. As per the contracts with the client on cost plus job, the billing is done on the actual payment made to the employees and allocated to jobs based on hours booked by these employees on each job.

The company gives the following disclosures in its notes to accounts:

"Salaries and benefits include the provision of Rs. 680 lakhs in respect of pay revision. The amount chargeable from reimbursable jobs will be billed as per the contract when the actual payment is made".

The accountant feels that the company should also recognise the income by Rs. 680 lakhs in Profit and Loss Account as per the terms of the contract. Otherwise, it will be the violation of matching concept and it will lead to understatement of profit.

You are required to comment on the treatment done by the company in line with provisions of Accounting Standards.

- (c) From the following information relating to Y Ltd. Calculate Earnings Per Share (EPS):

	Rs. in crores
Profit before V.R.S. payments but after depreciation	75.00
Depreciation	10.00
VRS payments	32.10
Provision for taxation	10.00
Fringe benefit tax	5.00
Paid up share capital (shares of Rs. 10 each fully paid)	93.00

- (d) Beta Ltd. has its share capital divided into shares of Rs. 10 each. On 1<sup>st</sup> April, 2014, it granted 25,000 employees stock options at Rs. 50 when the market price was Rs. 140 per share. The options were to be exercised between 1<sup>st</sup> January, 2015 and 28<sup>th</sup> February, 2015. The employees exercised options for 24,000 shares only; the remaining options lapsed. The company closes its books of account on 31<sup>st</sup> March every year. You are required to show necessary journal entries reflecting these transactions. *(4 x 5 = 20 Marks)*

2. XYZ & Co. is a partnership firm consisting of Mr. X, Mr. Y and Mr. Z who share profits and losses in the ratio of 2:2:1 and ABC 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	XYZ & Co. Rs.	ABC Ltd. Rs.		XYZ & Co. Rs.	ABC Ltd. Rs.
Equity share capital:			Plant & machinery	5,00,000	16,00,000
Equity shares of Rs. 10 each		20,00,000	Furniture & fixture	50,000	2,25,000
Partners capital:			Inventories	2,00,000	8,50,000
X	2,00,000		Trade receivables	2,00,000	8,25,000
Y	3,00,000		Cash at bank	10,000	4,00,000
Z	1,00,000		Cash in hand	40,000	1,00,000
General reserve	1,00,000	7,00,000			
Trade payables	<u>3,00,000</u>	<u>13,00,000</u>			
	<u>10,00,000</u>	<u>40,00,000</u>		<u>10,00,000</u>	<u>40,00,000</u>

It was decided that the firm XYZ & 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 ABC Ltd. by issuing 50,000 shares of Rs. 10 each at a premium of Rs. 2 per share.

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

The trade payables of XYZ & Co. includes Rs. 1,00,000 payable to ABC Ltd. An unrecorded liability of Rs. 25,000 of XYZ & Co. must also be taken over by ABC Ltd.

Prepare:

- (i) Realisation account, Partners' capital accounts and Cash in hand/Bank account in the books of XYZ & Co.
- (ii) Pass journal entries in the books of ABC Ltd. for acquisition of XYZ & Co. and draw the Balance Sheet after the takeover. (16 Marks)

3. The summarised Balance Sheet of M/s. Ice Ltd. as on 31-03-2016 is given below:

Liabilities	Rs.	Assets	Rs.
1,00,000 Equity shares of Rs. 10 each fully paid up	10,00,000	Freehold property	5,50,000
4,000, 8% Preference shares of Rs. 100 each fully paid	4,00,000	Plant and machinery	2,00,000
6% Debentures 4,00,000 (secured by freehold property)		Trade investment (at cost)	2,00,000
Arrear interest <u>24,000</u>	4,24,000	Trade receivables	4,50,000
Trade payables	1,01,000	Inventories-in trade	3,00,000
Director's loan	<u>3,00,000</u>	Profit and loss account	5,25,000
	<u>22,25,000</u>		<u>22,25,000</u>

The Board of Directors of the company decided upon the following scheme of reconstruction with the consent of respective stakeholders:

- (i) Preference shares are to be written down to Rs. 80 each and equity shares to Rs. 2 each.
- (ii) Preference dividend in arrear for 3 years to be waived by 2/3<sup>rd</sup> and for balance 1/3<sup>rd</sup>, equity shares of Rs. 2 each to be allotted.
- (iii) Debentureholders agreed to take one freehold property at its book value of Rs. 3,00,000 in part payment of their holding. Balance debentures to remain as liability of the company.

- (iv) Arrear debenture interest to be paid in cash.
- (v) Remaining freehold property to be valued at Rs. 4,00,000.
- (vi) Investment sold out for Rs. 2,50,000.
- (vii) 75% of Director's loan to be waived and for the balance, equity shares of Rs. 2 each to be allotted.
- (viii) 40% of Trade receivables, 80% of Inventories and 100% of debit balance of profit and loss account to be written off.
- (ix) Company's contractual commitments amounting to Rs. 6,00,000 have been settled by paying 5% penalty of contract value.

Show the Journal Entries for giving effect to the internal re-construction and draw the Balance Sheet of the company after effecting the scheme. (16 Marks)

4. (a) The following is the summarized Balance Sheet of Shah Ltd. Co. which is in the hands of the liquidator:

**Balance Sheet as at 31.3.2015**

<i>Liabilities</i>	<i>Rs.</i>	<i>Assets</i>	<i>Rs.</i>
Share Capital:		Fixed assets	2,00,000
1,000, 6% Preference Shares of Rs. 100 each, fully paid	1,00,000	Inventory	1,20,000
2,000 Equity shares of Rs. 100 each, fully paid	2,00,000	Book debts	2,40,000
2,000 Equity shares of Rs. 100 each Rs. 75 paid up	1,50,000	Cash in hand	40,000
Loan from bank (on security of stock)	1,00,000	Profit and loss A/c	3,00,000
Trade Payables	<u>3,50,000</u>		
	<u>9,00,000</u>		<u>9,00,000</u>

The assets realized the following amounts (after all costs of realization and liquidator's commission amounting to Rs. 5,000 paid out of cash in hand).

	<i>Rs.</i>
Fixed assets	1,68,000
Inventory	1,10,000
Trade Receivables	2,30,000

Calls on partly paid shares were made but the amounts due on 200 shares were found to be irrecoverable.

You are required to prepare Liquidator's Final Statement of Receipts and Payments.

- (b) Show adjustment Journal entry in the books of Head Office at the end of April, 2016 for incorporation of inter-branch transactions assuming that only Head Office maintains different branch accounts in its books.

**A. A.P. Branch:**

- (1) Received goods from M.P. – Rs. 30,000 and Rs. 25,000 from U.P.
- (2) Sent goods to W.B. – Rs. 20,000, U.P. – Rs. 30,000.
- (3) Bill Receivable received – Rs. 10,000 from W.B.
- (4) Acceptances sent to M.P. – Rs. 10,000, U.P. – Rs. 20,000.

**B. M.P. Branch (apart from the above) :**

- (5) Received goods from U.P. – Rs. 20,000, A.P – Rs. 10,000.
- (6) Cash sent to A.P – Rs. 20,000, U.P. – Rs. 10,000.

**C. W.B. Branch (apart from the above) :**

- (7) Received goods from U.P. – Rs. 40,000.
- (8) Acceptances and Cash sent to U.P. – Rs. 10,000 and Rs. 15,000 respectively.

**D. U.P. Branch (apart from the above) :**

- (9) Paid cash to W.B. – Rs. 20,000 and M.P. – Rs. 10,000 (8 + 8 = 16 Marks)

5. The following are the figures extracted from the books of TOP Bank Limited as on 31.3.2016.

	Rs.
Interest and discount received	59,29,180
Interest paid on deposits	32,59,920
Issued and subscribed capital	16,00,000
Salaries and allowances	3,20,000
Directors fee and allowances	48,000
Rent and taxes paid	1,44,000
Postage and telegrams	96,460
Statutory reserve fund	12,80,000
Commission, exchange and brokerage	3,04,000
Rent received	1,04,000

Profit on sale of investments	3,20,000
Depreciation on bank's properties	48,000
Statutory expenses	44,000
Preliminary expenses	40,000
Auditor's fee	28,000

The following further information is given:

- (i) A customer to whom a sum of Rs. 16 lakhs has been advanced has become insolvent and it is expected only 40% can be recovered from his estate.
- (ii) There were also other debts for which a provision of Rs. 2,10,000 was found necessary by the auditors.
- (iii) Rebate on bills discounted on 31.3.2015 was Rs. 19,000 and on 31.3.2016 was Rs. 25,000.
- (iv) Preliminary expenses are to be fully written off during the year.
- (v) Provide Rs. 9,00,000 for Income-tax.
- (vi) Profit and Loss account opening balance was Nil as on 31.3. 2015.

Prepare the Profit and Loss account of TOP Bank Limited for the year ended 31.3. 2016.

(16 Marks)

6. (a) From the following information of XYZ Marine Insurance Ltd. for the year ending 31<sup>st</sup> March, 2016, find out the
  - (i) Net Premium earned
  - (ii) Net Claims Incurred

<i>Particulars</i>	<i>Direct Business (Rs.)</i>	<i>Re-insurance (Rs.)</i>
Premium Received	92,00,000	7,86,000
Premium Receivable as on 01.04.2015	4,59,000	37,000
Premium Receivable as on 31.03.2016	3,94,000	33,000
Premium Paid		6,36,000
Premium Payable as on 01.04.2015		28,000
Premium payable as on 31.03.2016		20,000
Claims Paid	73,00,000	5,80,000
Claims payable as on 01.04.2015	94,000	16,000

Claims payable as on 31.03.2016	1,01,000	12,000
Claims received		2,10,000
Claims receivable as on 01.04.2015		42,000
Claims receivable as on 31.03.2016		39,000

- (b) The following balances were extracted from the books of M/s Division. You are required to prepare Departmental Trading Account and Profit and Loss account for the year ended 31<sup>st</sup> December, 2015 after adjusting the unrealized department profits if any.

	<i>Deptt. A</i> Rs.	<i>Deptt. B</i> Rs.
Opening Stock	50,000	40,000
Purchases	6,50,000	9,10,000
Sales	10,00,000	15,00,000

General expenses incurred for both the departments were Rs. 1,25,000 and you are also supplied with the following information: (a) Closing stock of Department A Rs. 1,00,000 including goods from Department B for Rs. 20,000 at cost of Department A. (b) Closing stock of Department B Rs. 2,00,000 including goods from Department A for Rs. 30,000 at cost to Department B. (c) Opening stock of Department A and Department B include goods of the value of Rs. 10,000 and Rs. 15,000 taken from Department B and Department A respectively at cost to transferee departments. (d) The rate of gross profit is uniform from year to year.

(10 + 6 = 16 Marks)

7. (a) Explain whether the following will constitute a change in accounting policy or not as per AS 5?
- (i) Introduction of a formal retirement gratuity scheme by an employer in place of ad hoc ex-gratia payments to employees on retirement.
  - (ii) Management decided to pay pension to those employees who have retired after completing 5 years of service in the organization. Such employees will get pension of Rs. 20,000 per month. Earlier there was no such scheme of pension in the organization.
- (b) AB Ltd. launched a project for producing product X in October, 2013. The Company incurred Rs. 20 lakhs towards Research and Development expenses upto 31<sup>st</sup> March, 2015. Due to prevailing market conditions, the Management came to conclusion that the product cannot be manufactured and sold in the market for the next 10 years. The Management hence wants to defer the expenditure write off to future years. Advise the Company as per the applicable Accounting Standard.

- (c) An earthquake destroyed a major warehouse of PQR Ltd. on 30.4.2016. The accounting year of the company ended on 31.3.2016. The accounts were approved on 30.6.2016. The loss from earthquake is estimated at Rs. 25 lakhs. State with reasons, whether the loss due to earthquake is an adjusting or non-adjusting event and how the fact of loss is to be disclosed by the company.
- (d) A commercial bank has the following capital funds. Segregate the capital funds into Tier I and Tier II capitals.

<i>Particulars</i>	<i>Amount (Rs. in crores)</i>
Equity Share Capital	400.00
Statutory Reserve	250.00
Capital Reserve (of which Statutory Reserve Rs. 18 crores were due to revaluation of assets and the balance due to sale of capital assets)	86.00

- (c) Mohan started a business on 1<sup>st</sup> April 2014 with Rs. 12,00,000 represented by 60,000 units of Rs. 20 each. During the financial year ending on 31<sup>st</sup> March, 2015, he sold the entire stock for Rs. 30 each. In order to maintain the capital intact, calculate the maximum amount, which can be withdrawn by Mohan in the year 2014-15 if Financial Capital is maintained at historical cost. (4 x 4 = 16 Marks)



**MOCK TEST PAPER - 1**  
**INTERMEDIATE (IPC): GROUP – I**  
**PAPER – 5: ADVANCED ACCOUNTING**  
**SUGGESTED ANSWERS/HINTS**

1. (a) According to para 21 of AS 12 on Accounting for Government Grants, the amount refundable in respect of a grant related to a specific fixed asset should be recorded by increasing the book value of the asset or by reducing deferred income balance, as appropriate, by the amount refundable. Where the book value is increased, depreciation on the revised book value should be provided prospectively over the residual useful life of the asset.

		<i>Rs. (in lakhs)</i>
1 <sup>st</sup> April, 2013	Acquisition cost of machinery (Rs. 1,500 – Rs. 300)	1,200.00
31 <sup>st</sup> March, 2014	Less: Depreciation @ 20%	<u>(240.00)</u>
	Book value	960.00
31 <sup>st</sup> March, 2015	Less: Depreciation @ 20%	<u>(192.00)</u>
	Book value	768.00
31 <sup>st</sup> March, 2016	Less: Depreciation @ 20%	<u>(153.60)</u>
1 <sup>st</sup> April, 2016	Book value	614.40
May, 2016	Add: Refund of grant	<u>300.00</u>
	Revised book value	<u>914.40</u>

Depreciation @ 20% on the revised book value amounting Rs. 914.40 lakhs is to be provided prospectively over the remaining useful life of the asset i.e. years ended 31<sup>st</sup> March, 2017 and 31<sup>st</sup> March, 2018.

- (b) As per AS 29, 'Provisions, Contingent Liabilities and Contingent Assets', when some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, the reimbursement should be recognised when, and only when, it is virtually certain that reimbursement will be received if the enterprise settles the obligation. The reimbursement should be treated as a separate asset. The amount recognised for the reimbursement should not exceed the amount of the provision.

Accordingly, potential loss to an enterprise may be reduced or avoided because a contingent liability is matched by a related counter-claim or claim against a third party. In such cases, the amount of the provision is determined after taking into account the probable recovery under the claim if no significant uncertainty as to its measurability or collectability exists.

(c)

		<i>Rs. in crores</i>
Profit after depreciation but before VRS Payment		75.00
Less:	Depreciation – No adjustment required	-
	VRS payments	32.10
	Provision for taxation	10.00
	Fringe benefit tax	<u>5.00</u>
Net Profit		<u>27.90</u>

No. of shares 9.30 crores

$$\text{EPS} = \frac{\text{Netprofit}}{\text{No.of shares}} = \frac{27.90}{9.30} = \text{Rs. 3 per share.}$$

(d)

#### Journal Entries

			Rs.	Rs.
1.1.15	Bank A/c	Dr.	12,00,000	
to	Employees compensation expense A/c	Dr.	21,60,000	
28.2.15				
	To Equity Share Capital A/c			2,40,000
	To Securities Premium A/c			31,20,000
	(Allotment of 24,000 equity shares of Rs.10 each at a premium of Rs.130 per share to the employees)			
31.3.15	Profit and Loss A/c	Dr.	21,60,000	
	To Employees Compensation Expense A/c			21,60,000
	(For transfer of employees compensation expense to profit and loss account)			

2. (i)

**In the books of XYZ & Co.**

**Realisation Account**

	Rs.		Rs.
To Plant & Machinery	5,00,000	By Trade payables	3,00,000
To Furniture & Fixture	50,000	By ABC Ltd. (Refer W.N.)	6,00,000
To Stock in trade	2,00,000	By Partners' Capital Accounts (loss):	
To Trade receivables	2,00,000	X's Capital A/c	20,000
		Y's Capital A/c	20,000
		Z's Capital A/c	<u>10,000</u>
	<u>9,50,000</u>		<u>9,50,000</u>

**Partners' Capital Accounts**

	X Rs.	Y Rs.	Z Rs.		X Rs.	Y Rs.	Z Rs.
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 ABC Ltd.	2,40,000	2,40,000	1,20,000	By General Reserve	40,000	40,000	20,000
To Cash A/c	-	<u>80,000</u>	-	By Cash A/c	<u>20,000</u>	-	<u>10,000</u>
	<u>2,60,000</u>	<u>3,40,000</u>	<u>1,30,000</u>		<u>2,60,000</u>	<u>3,40,000</u>	<u>1,30,000</u>

**Cash and Bank Account**

	Cash Rs.	Bank Rs.		Cash Rs.	Bank Rs.
To Balance b/d	40,000	10,000	By Cash A/c (Contra)*		10,000
To Bank A/c (Contra)*	10,000		By Y	80,000	
To X	20,000				
To Z	<u>10,000</u>				
	<u>80,000</u>	<u>10,000</u>		<u>80,000</u>	<u>10,000</u>

\*It is assumed that cash at bank has been withdrawn to pay Rs. 80,000 to partner Y. However, payment to Y of Rs. 80,000 can also be made by cash Rs. 70,000 & by cheque Rs. 10,000.

(ii)

**In the Books of ABC Ltd.****Journal Entries**

			<i>Dr. (Rs.)</i>	<i>Cr. (Rs.)</i>
1.	Business Purchase Account To XYZ & Co. (Being business of XYZ & Co. purchased and payment due)	Dr.	6,00,000	6,00,000
2.	Plant and Machinery Account Furniture and Fixture Account Inventories Account Trade Receivables Account To Trade Payables Account To Unrecorded Liability Account To Business Purchase Account To Capital Reserve Account (Bal. Fig.) (Being take over of all assets and liabilities)	Dr. Dr. Dr. Dr.	5,00,000 50,000 2,00,000 2,00,000	3,00,000 25,000 6,00,000 25,000
3.	XYZ & Co. To Equity Share Capital Account To Securities Premium Account (Being purchase consideration discharged in the form of shares of Rs. 10 each issued at a premium of Rs. 2 each)	Dr.	6,00,000	5,00,000 1,00,000
4.	Trade Payables Account To Trade Receivables Account (Being mutual owings eliminated)	Dr.	1,00,000	1,00,000

**Balance Sheet of ABC Ltd. (After take over of XYZ & Co.)****as at 31.3.2015**

	<i>Note No.</i>	<i>Rs.</i>
<b>Equity and Liabilities</b>		
<i>Shareholders funds</i>		
Share capital	1	25,00,000
Reserve and Surplus	2	8,25,000

<i>Current liabilities</i>		
Trade Payables (3,00,000 + 13,00,000 – 1,00,000)		15,00,000
Others (Unrecorded Liability)		<u>25,000</u>
	Total	<u>48,50,000</u>
<b>Assets</b>		
<i>Non-current assets</i>		
Fixed assets		
Tangible assets	3	23,75,000
<i>Current assets</i>		
Inventories(2,00,000 + 8,50,000)		10,50,000
Trade Receivables (2,00,000 + 8,25,000 – 1,00,000)		9,25,000
Cash and cash equivalent	4	<u>5,00,000</u>
	Total	<u>48,50,000</u>

#### Notes to Accounts

		Rs.
1.	<i>Share Capital</i> 2,50,000, Equity shares of Rs. 10 each fully paid up (out of which 50,000 shares has been issued for consideration other than cash)	25,00,000
2.	<i>Reserve and Surplus</i>	
	Securities Premium	1,00,000
	Capital Reserve	25,000
	General Reserve	<u>7,00,000</u>
		8,25,000
3.	<i>Tangible assets</i>	
	Plant and Machinery (5,00,000 + 16,00,000)	21,00,000
	Furniture and fixture (50,000 + 2,25,000)	<u>2,75,000</u>
		23,75,000
4.	<i>Cash and cash equivalent</i>	
	Cash at Bank	4,00,000
	Cash in hand	<u>1,00,000</u>
		5,00,000

**Working Note:****Computation of purchase consideration:**

50,000, Equity shares of Rs. 12 (10+2) each = Rs. 6,00,000

Equity shares distributed among partners:

Partner X	=	20,000 shares @ Rs. 12	=	Rs. 2,40,000
Partner Y	=	20,000 shares @ Rs. 12	=	Rs. 2,40,000
Partner Z	=	10,000 shares @ Rs. 12	=	Rs. 1,20,000
				Rs. 6,00,000

3.

**In the books of Ice Ltd.****Journal Entries**

	<i>Particulars</i>		<i>Debit Rs.</i>	<i>Credit Rs.</i>
i	8% Preference share capital A/c (Rs. 100 each) Dr. To 8% Preference share capital A/c (Rs. 80 each) To Capital reduction A/c (Being the preference shares of Rs. 100 each reduced to Rs. 80 each as per the approved scheme)		4,00,000	3,20,000 80,000
ii	Equity share capital A/c (Rs. 10 each) Dr. To Equity share capital A/c (Rs. 2 each) To Capital reduction A/c (Being the equity shares of Rs. 10 each reduced to Rs. 2 each)		10,00,000	2,00,000 8,00,000
iii	Capital reduction A/c Dr. To Equity share capital A/c (Rs. 2 each) (Being arrears of preference share dividend of one year to be satisfied by issue of 16,000 equity shares of Rs. 2 each)		32,000	32,000
iv	6% Debentures A/c Dr. To Freehold property A/c (Being claim settled in part by transfer of freehold property)		3,00,000	3,00,000
v	Accrued debenture interest A/c Dr. To Bank A/c		24,000	24,000

	(Being accrued debenture interest paid)			
vi	Freehold property A/c	Dr.	1,50,000	
	To Capital reduction A/c			1,50,000
	(Being appreciation in the value of freehold property)			
vii	Bank A/c	Dr.	2,50,000	
	To Trade investment A/c			2,00,000
	To Capital reduction A/c			50,000
	(Being trade investment sold on profit)			
viii	Director's loan A/c	Dr.	3,00,000	
	To Equity share capital A/c (Rs. 2 each)			75,000
	To Capital reduction A/c			2,25,000
	(Being director's loan waived by 75% and balance being discharged by issue of 37,500 equity shares of Rs. 2 each)			
ix	Capital Reduction A/c	Dr.	9,75,000	
	To Profit and loss A/c			5,25,000
	To Trade receivables A/c			1,80,000
	To Inventories-in-trade A/c			2,40,000
	To Bank A/c			30,000
	(Being various assets, penalty on cancellation of contract, profit and loss account debit balance written off through capital reduction account)			
x	Capital Reduction A/c	Dr.	2,98,000	
	To Capital reserve A/c			2,98,000
	(Being balance transferred to capital reserve account as per the scheme)			

**Balance Sheet of Ice Ltd. (As reduced)**

Particulars		Notes No.	Rs.
<b>Equity and Liabilities</b>			
1	Shareholders' funds		
a	Share capital	1	6,27,000
b	Reserves and Surplus	2	2,98,000
2	<b>Non-current liabilities</b>		

	Long-term borrowings	3	1,00,000
<b>3</b>	<b>Current liabilities</b>		
a	Trade Payables		<u>1,01,000</u>
	Total		<u>11,26,000</u>
	<b>Assets</b>		
<b>1</b>	<b>Non-current assets</b>		
a	Fixed assets		
	Tangible assets	4	6,00,000
<b>2</b>	<b>Current assets</b>		
a	Inventories		60,000
b	Trade receivables		2,70,000
c	Cash and cash equivalents	5	<u>1,96,000</u>
	Total		<u>11,26,000</u>

**Note to Accounts**

**Rs.**

<b>1.</b>	<b>Share Capital</b>	
	1,53,500 Equity shares of Rs. 2 each (out of which 53,500 shares have been issued for consideration other than cash)	3,07,000
	4,000, 8% Preference shares of Rs. 80 each fully paid up	<u>3,20,000</u>
	Total	<u>6,27,000</u>
<b>2.</b>	<b>Reserves and Surplus</b>	
	Capital Reserve	2,98,000
<b>3.</b>	<b>Long-term borrowings</b>	
	Secured	
	6% Debentures	1,00,000
<b>4.</b>	<b>Tangible assets</b>	
	Freehold property	4,00,000
	Plant and machinery	<u>2,00,000</u>
	Total	<u>6,00,000</u>
<b>5.</b>	<b>Cash and cash equivalents</b>	
	Cash at bank (2,50,000 – 24,000 – 30,000)	1,96,000

**4. (a) Liquidator's Final Statement of Receipts and Payments A/c**

	Rs.	Rs.		Rs.
To Cash in hand		40,000	By Liquidator's remuneration	5,000



To Assets realised:			and expenses	
Fixed assets	1,68,000		By Trade Payables	3,50,000
Inventory			By Preference shareholders	1,00,000
(1,10,000 – 1,00,000)	10,000		By Equity shareholders @	
Book debts	<u>2,30,000</u>	4,08,000	Rs. 10 on 2,000 shares	20,000
To Cash - proceeds of call on				
1,800 equity shares @				
Rs. 15		<u>27,000</u>		
		<u>4,75,000</u>		<u>4,75,000</u>

**Working Note:**

**Return per equity share**

	Rs.
Cash available before paying preference shareholders (Rs. 4,48,000 – Rs. 3,55,000)	93,000
Add: Notional calls 1,800 shares (2,000-200) × Rs. 25	<u>45,000</u>
	1,38,000
Less: Preference share capital	<u>(1,00,000)</u>
Available for equity shareholders	<u>38,000</u>
Return per share = $\frac{\text{Rs. } 38,000}{3,800 (4,000 - 200)} = \text{Rs. } 10$	
and Loss per Equity Share Rs. (100-10) = Rs. 90	

Calls to be made @ Rs. 15 per share (Rs. 90-75) on 1,800 shares.

**(b) Journal entry in the books of Head Office**

Date	Particulars	Dr.	Cr.
		Rs.	Rs.
30.4.2016	W.B. Branch Account	Dr. 45,000	
	To A.P. Branch Account		5,000
	To M.P. Branch Account		10,000
	To U.P. Branch Account		30,000
	(Being adjustment entry passed by head office in respect of inter-branch transactions for the month of April, 2014)		

**Working Note:**

**Inter – Branch transactions**

		<i>A.P</i>	<i>M.P.</i>	<i>W.B.</i>	<i>U.P.</i>
		<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
<b>A.</b>	<b>A.P Branch</b>				
(1)	Received goods	55,000 (Dr.)	30,000 (Cr.)		25,000 (Cr.)
(2)	Sent goods	50,000 (Cr.)		20,000 (Dr.)	30,000 (Dr.)
(3)	Received Bills receivable	10,000 (Dr.)		10,000 (Cr.)	
(4)	Sent acceptance	30,000 (Cr.)	10,000 (Dr.)		20,000 (Dr.)
<b>B.</b>	<b>M.P. Branch</b>				
(5)	Received goods	10,000 (Cr.)	30,000 (Dr.)		20,000 (Cr.)
(6)	Sent cash	20,000 (Dr.)	30,000 (Cr.)		10,000 (Dr.)
<b>C.</b>	<b>W.B. Branch</b>				
(7)	Received goods			40,000 (Dr.)	40,000 (Cr.)
(8)	Sent cash and acceptances			25,000 (Cr.)	25,000 (Dr.)
<b>D.</b>	<b>U.P. Branch</b>				
(9)	Sent cash	<u>5,000 (Cr.)</u>	<u>10,000 (Dr.)</u>	<u>20,000 (Dr.)</u>	<u>30,000 (Cr.)</u>
			<u>10,000 (Cr.)</u>	<u>45,000 (Dr.)</u>	<u>30,000 (Cr.)</u>

5.

**TOP Bank Limited**

**Profit and Loss Account for the year ended 31<sup>st</sup> March, 2016**

		<i>Schedule</i>	<i>Year ended 31.03. 2016</i>
			<i>(₹ in '000s)</i>
<b>I.</b>	<b>Income:</b>		
	Interest earned	13	5923.18
	Other income	14	<u>728.00</u>
	Total		<u>6,651.18</u>
<b>II.</b>	<b>Expenditure</b>		
	Interest expended	15	3259.92
	Operating expenses	16	768.46

	Provisions and contingencies (960+210+900)	<u>2,070.00</u>
	Total	<u>6,098.38</u>
<b>III.</b>	<b>Profits/Losses</b>	
	Net profit for the year	552.80
	Profit brought forward	<u>nil</u>
		<u>552.80</u>
<b>IV.</b>	<b>Appropriations</b>	
	Transfer to statutory reserve (25%)	138.20
	Balance carried over to balance sheet	<u>414.60</u>
		<u>552.80</u>

		Year ended 31.3. 2016 (₹ in '000s)
	<b>Schedule 13 – Interest Earned</b>	
I.	Interest/discount on advances/bills (Refer W.N.)	<u>5923.18</u>
		<u>5923.18</u>
	<b>Schedule 14 – Other Income</b>	
I.	Commission, exchange and brokerage	304
II.	Profit on sale of investments	320
III.	Rent received	<u>104</u>
		<u>728</u>
	<b>Schedule 15 – Interest Expended</b>	
I.	Interests paid on deposits	<u>3259.92</u>
	<b>Schedule 16 – Operating Expenses</b>	
I.	Payment to and provisions for employees	320
II.	Rent, taxes and lighting	144
III.	Depreciation on bank's properties	48
IV.	Director's fee, allowances and expenses	48
V.	Auditors' fee	28
VI.	Law (statutory) charges	44
VII.	Postage and telegrams	96.46

VIII.	Preliminary expenses	40
		<u>768.46</u>

**Working Note:**

	(₹ in '000s)
Interest/discount	5,929.18
Add: Rebate on bills discounted on 31.3. 2015	19.00
Less: Rebate on bills discounted on 31.3. 2016	<u>25.00</u>
	<u>5,923.18</u>

**6. (a) In the books of XYZ Marine Insurance Ltd.**

	Amount (Rs.)
<b>(i) Net Premium earned</b>	
Premium from Direct Business received	92,00,000
Add: Receivable as on 31.03.2016	3,94,000
Less: Receivable as on 01.04.2015	<u>(4,59,000)</u>
Sub Total (A)	<u>91,35,000</u>
Premium on reinsurance accepted	7,86,000
Add: Receivable as on 31.03.2016	33,000
Less: Receivable as on 01.04.2015	<u>(37,000)</u>
Sub Total (B)	<u>7,82,000</u>
Premium on reinsurance Ceded	6,36,000
Add: Payable as on 31.03.2016	20,000
Less: Payable as on 01.04.2015	<u>(28,000)</u>
Sub Total (C)	<u>6,28,000</u>
Premium Earned (A+B-C)	92,89,000
<b>(ii) Net Claims Incurred</b>	
Claims paid on direct business	73,00,000
Add: Outstanding as on 31.03.2016	1,01,000
Less: Outstanding as on 01.04.2015	<u>(94,000)</u>
Sub Total (A)	<u>73,07,000</u>
Reinsurance claims	5,80,000
Add: Outstanding as on 31.03.2016	12,000
Less: Outstanding as on 01.04.2015	<u>(16,000)</u>

Sub Total (B)	<u>5,76,000</u>
Claims received from reinsurance	2,10,000
Add: Outstanding as on 31.03.2016	39,000
Less: Outstanding as on 01.04.2015	<u>(42,000)</u>
Sub Total (C)	<u>2,07,000</u>
Net Claim Incurred (A+B-C)	76,76,000

(b) **Departmental Trading and Profit and Loss Account of M/s Division**  
**For the year ended 31<sup>st</sup> December, 2015**

	Deptt. A	Deptt. B		Deptt. A	Deptt. B
	Rs.	Rs.		Rs.	Rs.
To Opening stock	50,000	40,000	By Sales	10,00,000	15,00,000
To Purchases	6,50,000	9,10,000	By Closing stock	<u>1,00,000</u>	<u>2,00,000</u>
To Gross profit	<u>4,00,000</u>	<u>7,50,000</u>		<u>11,00,000</u>	<u>17,00,000</u>
	<u>11,00,000</u>	<u>17,00,000</u>	By Gross profit	4,00,000	7,50,000
To General Expenses (in ratio of sales)	50,000	75,000			
To Profit ts/f to general profit and loss account	3,50,000	6,75,000			
	<u>4,00,000</u>	<u>7,50,000</u>		<u>4,00,000</u>	<u>7,50,000</u>

**General Profit and Loss Account**

	Rs.		Rs.
To Stock reserve required (additional: Stock in Deptt. A 50% of (Rs. 20,000 - Rs. 10,000) (W.N.1)	5,000	By Profit from: Deptt. A	3,50,000
Stock in Deptt. B 40% of (Rs. 30,000 - Rs. 15,000) (W.N.2)	6,000	Deptt. B	6,75,000
To Net Profit	<u>10,14,000</u>		
	<u>10,25,000</u>		<u>10,25,000</u>

**Working Notes:**

1. Stock of department A will be adjusted according to the rate applicable to department B =  $[(7,50,000 \div 15,00,000) \times 100] = 50\%$

2. Stock of department B will be adjusted according to the rate applicable to department A =  $[(4,00,000 \div 10,00,000) \times 100] = 40\%$
7. (a) As per AS 5 'Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies', the adoption of an accounting policy for events or transactions that differ in substance from previously occurring events or transactions, will not be considered as a change in accounting policy.
- (i) Accordingly, introduction of a formal retirement gratuity scheme by an employer in place of ad hoc ex-gratia payments to employees on retirement is not a change in an accounting policy.
- (ii) Similarly, the adoption of a new accounting policy for events or transactions which did not occur previously or that were immaterial will not be treated as a change in an accounting policy
- (b) As per Para 41 of AS 26 "Intangible Assets", expenditure on research should be recognized as an expense when it is incurred. An intangible asset arising from development (or from the development phase of an internal project) should be recognized if, and only if, an enterprise can demonstrate all of the conditions specified in para 44 of the standard. An intangible asset (arising from development) should be derecognised when no future economic benefits are expected from its use according to para 87 of the standard. Therefore, the manager cannot defer the expenditure write off to future years.

Hence, the expenses amounting Rs. 20 lakhs incurred on the research and development project has to be written off in the current year ending 31<sup>st</sup> March, 2015.

- (c) AS 4 "Contingencies and Events Occurring after the Balance Sheet Date", states that adjustments to assets and liabilities are not appropriate for events occurring after the balance sheet date, if such events do not relate to conditions existing at the balance sheet date. The destruction of warehouse due to earthquake did not exist on the balance sheet date i.e. 31.3.2016. Therefore, loss occurred due to earthquake is not to be recognised in the financial year 2015-2016.

However, according to para 8.6 of the standard, unusual changes affecting the existence or substratum of the enterprise after the balance sheet date may indicate a need to consider the use of fundamental accounting assumption of going concern in the preparation of the financial statements. As per the information given in the question, the earthquake has caused major destruction; therefore fundamental accounting assumption of going concern is called upon.

Hence, the fact of earthquake together with an estimated loss of Rs. 25 lakhs should be disclosed in the Report of the Directors for the financial year 2015-2016.

(d) **Computation of Tier I and Tier II Capital Fund**

<i>Particulars</i>	<i>Amount (Rs. in crores)</i>
<b>(i) Capital Funds – Tier I</b>	
Equity Share Capital	400.00
Statutory Reserve	250.00
Capital Reserve (arising out of sale of assets i.e. Rs. 86 cr – Rs.18 cr)	<u>68.00</u>
	718.00
<b>(ii) Capital Fund – Tier-II</b>	
Capital Reserve (arising out of revaluation of assets) 18.00	
Less: Discount to the extent of 55% <u>(9.90)</u>	<u>8.10</u>
	<u>726.10</u>

(e)

<i>Particulars</i>	<i>Financial Capital Maintenance at Historical Cost (Rs.)</i>
Closing equity (Rs. 30 x 60,000 units)	18,00,000 represented by cash
Opening equity	60,000 units x Rs. 20 = 12,00,000
Permissible drawings to keep Capital intact	6,00,000 (18,00,000 – 12,00,000)

Test Series: August, 2016

**MOCK TEST PAPER – 1**  
**INTERMEDIATE (IPC): GROUP – II**  
**PAPER – 6: AUDITING AND ASSURANCE**

*Question No.1 is compulsory.*

*Attempt any **five** questions from the remaining **six** questions.*

**Time Allowed – 3 Hours**

**Maximum Marks – 100**

1. (a) “The purpose of an audit is to enhance the degree of confidence of intended users in the financial statements.” Explain. *(5 Marks)*  
(b) With reference of SA 250 give some examples or matters indicating to the auditor about non compliance of laws & regulations by management. *(5 Marks)*  
(c) State the generalisations about the reliability of audit evidence *(5 Marks)*  
(d) “Fraud in the form of misappropriation of goods is still more difficult to detect.” Explain. *(5 Marks)*
2. State with reason (in short) whether the following statements are correct or incorrect (Answer any **eight**):
  - (i) The basic objective of audit does not change with reference to nature, size or form of an entity.
  - (ii) The auditor cannot modify the opinion in the auditor's report.
  - (iii) While preparing the Balance sheet of a company- a receivable shall be classified as a ‘trade receivable’ if it is in respect of the amount due on account of goods purchased or services rendered in the normal course of business.
  - (iv) In case of Companies, only Central Government has the power to prescribe accounting standards.
  - (v) Teeming and lading is one of the techniques of inflating cash payments.
  - (vi) The fact that an audit is carried out acts as a deterrent and consequently the auditor can be held responsible for the prevention of fraud and error.
  - (vii) Sufficiency and appropriateness of audit evidence are interrelated.
  - (viii) Director's relative can act as an auditor of the company.
  - (ix) Internal control can provide absolute assurance.
  - (x) 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. *(2 x 8 = 16 Marks)*



3. (a) "Apart from the knowledge acquired by the auditor in the formal manner, the auditor should also possess certain personal qualities." Explain stating briefly the qualities of Auditors. *(6 Marks)*
- (b) "The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting one resulting from error." Explain. *(6 Marks)*
- (c) The Partner of Ashish Surjeet and Company, Chartered Accountants, asked the management to provide statements from the creditors as part of audit evidence and also required written representation from the management but the management did not provide the requested written representations. Discuss how the auditor would proceed. *(4 Marks)*
4. How will you vouch and verify the following?
- (a) Refund of General Insurance Premium paid.
- (b) Profit or Loss Arising on Sale of Plots Held by Real Estate Dealer.
- (c) Goods sent out on Sale or Return Basis.
- (d) Borrowing from Banks. *(4 x 4 = 16 Marks)*
5. (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 *(8 Marks)*
- (b) Mention any eight special audit points to be considered by the auditor during the audit of a Hospital? *(8 Marks)*
6. (a) RGS & Co. a firm of Chartered Accountants has three partners, namely, R, G & S. The firm is allotted the audit of BY Ltd. R, partner in the firm subsequently holds 100 shares in BY Ltd. Comment. *(4 Marks)*
- (b) Discuss the provisions relating to appointment of subsequent Auditors of Suruchi Yarns Pvt. Ltd. *(4 Marks)*
- (c) The auditor CA Z appointed under section 139 was removed from his office before the expiry of his term by an ordinary resolution of the company. Comment explaining clearly the procedure of removal of auditor before expiry of term. *(4 Marks)*
- (d) Discuss the reporting requirements regarding Fixed Assets under CARO, 2016. *(4 Marks)*

7. Write short notes on any four of the following:

- (a) Examination in Depth.
- (b) Audit Trail.
- (c) Intangible Assets.
- (d) Sweat Equity Shares.
- (e) Audit of Capital Reserve.

*(4 x 4 = 16 Marks)*

**MOCK TEST PAPER – 1**  
**INTERMEDIATE (IPC): GROUP – II**  
**PAPER – 6: AUDITING AND ASSURANCE**  
**SUGGESTED ANSWERS/HINTS**

1. (a) **Purpose of Audit:** As per SA 200 on “Overall objectives of the Independent Auditor”, 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.
- (b) **Examples or Matters Indicating about Non-Compliance with Laws and Regulations:** 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 :
- ◆ Investigations by regulatory organisations and government departments or payment of fines or penalties.
  - ◆ Payments for unspecified services or loans to consultants, related parties, employees or government employees.
  - ◆ 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.
  - ◆ Purchasing at prices significantly above or below market price.
  - ◆ Unusual payments in cash, purchases in the form of cashiers’ cheques payable to bearer or transfers to numbered bank accounts.
  - ◆ Unusual payments towards legal and retainership fees.
  - ◆ Unusual transactions with companies registered in tax havens.
  - ◆ Payments for goods or services made other than to the country from which the goods or services originated.
  - ◆ Payments without proper exchange control documentation.
  - ◆ Existence of an information system which fails, whether by design or by accident, to provide an adequate audit trail or sufficient evidence.

- ◆ Unauthorised transactions or improperly recorded transactions.
  - ◆ Adverse media comment.
- (c) **Generalisations about the Reliability of Audit Evidence:** The reliability of information to be used as audit evidence, and therefore of the audit evidence itself, is influenced by its source and its nature, and the circumstances under which it is obtained, including the controls over its preparation and maintenance where relevant. Therefore, generalisations about the reliability of various kinds of audit evidence are subject to important exceptions. Even when information to be used as audit evidence is obtained from sources external to the entity, circumstances may exist that could affect its reliability. For example, information obtained from an independent external source may not be reliable if the source is not knowledgeable, or a management's expert may lack objectivity. While recognising that exceptions may exist, the following generalisations about the reliability of audit evidence may be useful:
- ◆ The reliability of audit evidence is increased when it is obtained from independent sources outside the entity.
  - ◆ The reliability of audit evidence that is generated internally is increased when the related controls, including those over its preparation and maintenance, imposed by the entity are effective.
  - ◆ Audit evidence obtained directly by the auditor (for example, observation of the application of a control) is more reliable than audit evidence obtained indirectly or by inference (for example, inquiry about the application of a control).
  - ◆ Audit evidence in documentary form, whether paper, electronic, or other medium, is more reliable than evidence obtained orally (for example, a contemporaneously written record of a meeting is more reliable than a subsequent oral representation of the matters discussed).
  - ◆ Audit evidence provided by original documents is more reliable than audit evidence provided by photocopies or facsimiles, or documents that have been filmed, digitised or otherwise transformed into electronic form, the reliability of which may depend on the controls over their preparation and maintenance.
- (d) **Misappropriation of Goods:** Fraud in the form of misappropriation of goods is still more difficult to detect; for this management has to rely on various measures. Apart from the various requirements of record keeping about the physical quantities and their periodic checks, there must be rules and procedures for allowing persons inside the area where goods are kept. In addition there should be external security arrangements to see that no goods are taken out without proper authority. Goods can be anything in the premises; it may be machinery. It may even be the daily necessities of the office like stationery. The goods may be removed by subordinate employees or even by persons quite higher up in the management. Auditors can

detect this by undertaking a thorough and strenuous checking of records followed by physical verification process. Also, by resorting to intelligent ratio analysis, auditors may be able to form an idea whether such fraud exists. For example, the gross profit ratio adjusted for any recorded change during the year, reveals whether the value of inventory is reasonable with reference to the amount of the sale. Similarly, the input-output ratio of production in terms of physical quantity may reveal whether output is normal with reference to the quantity consumed for production.

2. (i) **Correct:** An audit is an independent examination of financial information of any entity, whether profit oriented or not, and irrespective of its size or legal form, when such an examination is conducted with a view to expressing an opinion thereon. It is clear that the basic objective of auditing, i.e., expression of opinion on financial statements does not change with reference to nature, size or form of an entity.
- (ii) **Incorrect:** The auditor shall modify the opinion in the auditor's report when the auditor concludes that, based on the audit evidence obtained, the financial statements as a whole are not free from material misstatement or the auditor is unable to obtain sufficient appropriate audit evidence to conclude that the financial statements as a whole are free from material misstatement.
- (iii) **Correct:** As explained in General Instructions for Preparation of Balance Sheet as per Schedule III, a receivable shall be classified as a 'trade receivable' if it is in respect of the amount due on account of goods purchased or services rendered in the normal course of business.
- (iv) **Correct:** Section 133 of the Companies Act, 2013 provides that the Central Government may prescribe accounting standards as recommended by the Institute of Chartered Accountants of India (ICAI) in consultation with and after examination of the recommendations made by the National Financial Reporting Authority.
- (v) **Incorrect:** Teeming and Lading is one of the techniques of suppressing cash receipts and not of inflating cash payments. Money received from one customer is misappropriated and the account is adjusted with the subsequent receipt from another customer and so on.
- (vi) **Incorrect:** An audit conducted in accordance with the auditing standards generally accepted in India is designed to provide reasonable assurance that the financial statements taken as a whole are free from material misstatement, whether caused by fraud or error. The fact that an audit is carried out may act as a deterrent, but the auditor is not and cannot be held responsible for the prevention of fraud and error.
- (vii) **Correct:** SA 500 on 'Audit Evidence' expounds this concept. According to it, the sufficiency and appropriateness of audit evidence are interrelated. Sufficiency is the measure of the quantity of audit evidence. Appropriateness is the measure of the

quality of audit evidence. SA 330 requires the auditor to conclude whether sufficient appropriate audit evidence has been obtained. Whether sufficient appropriate audit evidence has been obtained to reduce audit risk to an acceptably low level.

- (viii) **Incorrect:** As per section 141(3) of the Companies Act, 2013, a person shall not be eligible for appointment as an auditor of a company whose relative is a Director or is in the employment of the Company as a director or key Managerial Personnel.
- (ix) **Incorrect:** Internal control can provide only reasonable but not absolute assurance that its objective relating to prevention and detection of errors/frauds, safeguarding of assets etc., are achieved. This is because it suffers from some inherent limitations.
- (x) **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.

Whereas substantive procedure may be defined as an audit procedure designed to detect material misstatements at the assertion level.

3. (a) **Qualities of Auditors:** The auditor should possess specific knowledge of accountancy, auditing, taxation, etc. which are acquired by him during the course of his theoretical education.

The auditor should also have sufficient knowledge of general principles of law of contracts, partnership; specific statutes and provisions applicable, e.g. Companies Act, 2013, Co-operative Societies Act, etc.; client's nature of business and its peculiar features. Apart from the knowledge acquired by the auditor in the formal manner, the auditor should also possess certain personal qualities such as, tact; caution; firmness; good temper; judgement; patience; clear headedness and commonsense; reliability and trust, etc.

In short, all those personal qualities required to make a good person contribute to the making of a good auditor. In addition, the auditor must have the shine of culture for attaining a great height. He must have the highest degree of integrity backed by adequate independence. In fact, SA 200 mentions integrity, objectivity and independence as one of the basic principles.

Auditing is a profession, calling for wide variety of knowledge to which no one has yet set a limit, the most useful part of the knowledge is probably that which cannot be learnt from books because its acquisition depends on the alertness of the mind in applying to ever varying circumstances, the fruits of his own observation and reflection; only he who is endowed with common sense in adequate measure can achieve it.

- (b) **Risk of Not Detecting a Material Misstatement Resulting from Fraud:** As described in SA 200, the potential effects of inherent limitations are particularly significant in the case of misstatement resulting from fraud. The risk of not detecting

a material misstatement resulting from fraud is higher than the risk of not detecting one resulting from error. This is because fraud may involve sophisticated and carefully organized schemes designed to conceal it, such as forgery, deliberate failure to record transactions, or intentional misrepresentations being made to the auditor. Such attempts at concealment may be even more difficult to detect when accompanied by collusion. Collusion may cause the auditor to believe that audit evidence is persuasive when it is, in fact, false. The auditor's ability to detect a fraud depends on factors such as the skillfulness of the perpetrator, the frequency and extent of manipulation, the degree of collusion involved, the relative size of individual amounts manipulated, and the seniority of those individuals involved. While the auditor may be able to identify potential opportunities for fraud to be perpetrated, it is difficult for the auditor to determine whether misstatements in judgment areas such as accounting estimates are caused by fraud or error

- (c) **Management not providing Written Representation:** If management does not provide one or more of the requested written representations, the auditor shall:
  - (a) Discuss the matter with management;
  - (b) Re-evaluate the integrity of management and evaluate the effect that this may have on the reliability of representations (oral or written) and audit evidence in general; and
  - (c) Take appropriate actions, including determining the possible effect on the opinion in the auditor's report in accordance with SA 705.
- 4. (a) **Refund of General Insurance Premium paid:** The refund of insurance premium may be because of earlier provisional payment of premium or may be a policy might have been cancelled at a later date. The auditor should take following steps while vouching such refunds-
  - (i) Ascertain the reasons for refund of insurance premium.
  - (ii) Examine insurance policy or cover note to find out the amount of premium.
  - (iii) Verify advice of refund received from the insurance company. When refund is admitted, the insurance company sends the advice. This will be evidence as a covering letter to the cheque for the refund. Sometimes, a cheque is issued after a receipt is sent in advance to the insurance company.
  - (iv) Scrutinise correspondence between the insurance company and the client.
  - (v) Check entries in the bank book or the bank statement. If necessary, the counterfoil of the pay-in-slips can also be verified.
- (b) **Profit or Loss Arising on Sale of Plots Held by Real Estate Dealer:** The land holding in the case of real estate dealer will be a current asset and not a fixed

asset. The same should, therefore, be valued at cost or market value, whichever is less.

Profit or loss arising on sale of plots of land by Real Estate Dealer should be verified as follows-

- (i) Each property account should be examined from the beginning of the development with special reference to the nature of charges so as to find out that only the appropriate cost and charges have been debited to the account and the total cost of the property has been set off against the price realised for it.
- (ii) This basis of distribution of the common charges between different plots of land developed during the period, and basis for allocation of cost to individual properties comprised in a particular piece of land should be scrutinised.
- (iii) If land price lists are available, these should be compared with actual selling prices obtained. And it should be verified that contracts entered into in respect of sale have been duly sanctioned by appropriate authorities.
- (iv) Where part of the sale price is intended to reimburse taxes or expenses, suitable provisions should be maintained for the purpose.
- (v) The prices obtained for various plots of land sold should be checked with the plan map of the entire tract and any discrepancy or unreasonable price variations should be inquired into. The sale price of different plots of land should be verified on a reference to certified copies of sale deeds executed.
- (vi) Out of the sale proceeds, provision should be made for the expenditure incurred on improvement of land, which so far has been accounted for.

**(c) Goods sent out on sale or return basis**

- (i) Check whether a separate memoranda record of goods sent out on sale or return basis is maintained. The party accounts are debited only after the goods have been sold and the sales account is credited.
- (ii) See that price of such goods is unloaded from the sales account and the trade receivable's record. Refer to the memoranda record to confirm that on the receipt of acceptance from each party, his account has been debited and the sales account correspondingly credited.
- (iii) Ensure that the goods in respect of which the period of approval has expired at the close of the year either have been received back subsequently or customers' accounts have been debited.
- (iv) Confirm that the inventory of goods sent out on approval, the period of approval in respect of which had not expired till the close of the year lying with the party, has been included in the closing inventory.



(d) **Borrowing from Banks:** Borrowing from banks may be either in the form of overdraft limits or term loans. In each case, the borrowings should be verified as follows:

- (i) Reconcile the balances in the overdraft or loan account with that shown in the pass book(s) and confirm the last mentioned balance by obtaining a certificate from the bank showing the balance in the accounts as at the end of the year.
- (ii) Obtain a certificate from the bank showing particulars of securities deposited with the bank as security for the loans or of the charge created on an asset or assets of the concern and confirm that the same has been correctly disclosed and duly registered with Registrar of Companies and recorded in the Register of charges.
- (iii) Verify the authority under which the loan or draft has been raised. In the case of a company, only the Board of Directors is authorised to raise a loan or borrow from a bank.
- (iv) Confirm, in the case of a company, that the restraint contained in Section 180 of the Companies Act, 2013 as regards the maximum amount of loan that the company can raise has not been contravened.

Ascertain the purpose for which loan has been raised and the manner in which it has been utilized and that this has not prejudicially affected the entity.

5. (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-cum-performance 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) Audit of Hospital:** The audit points to be considered by the auditor during the audit of a Hospital are stated below:-

- (i) 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) 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) 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) Ascertain that legacies and donations received for a specific purpose have been applied in the manner agreed upon.
- (v) 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) 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) 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) 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) 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) See that depreciation has been written off against all the assets at the appropriate rates.
- (xi) Inspect the bonds, share scrips, title deeds of properties and compare their particulars with those entered in the property and Investment Registers.
- (xii) Obtain inventories, especially of inventories 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.

6. (a) **Holding of Shares by Partner of Audit Firm:** Under sub-section (3) of section 141 along with the Companies (Audit and Auditors) Rule, 2014, a person who, or his relative or partner is holding any security of or interest in the company or its subsidiary, or of its holding or associate company or a subsidiary of such holding company, shall not be eligible for appointment as an auditor of a company.

It may be noted that the relative may hold security or interest in the company of face value not exceeding rupees one lakh.

Where a person appointed as an auditor of a company incurs any of the disqualifications mentioned in sub-section (3) after his appointment, he shall vacate his office as such auditor and such vacation shall be deemed to be a casual vacancy in the office of the auditor.

Applying the above provisions to the given problem, it may be concluded that Firm of RGS, Chartered Accountants is not eligible to continue as auditors. Firm shall vacate its office as auditor and such vacation shall be treated as casual vacancy.

- (b) **Appointment of Subsequent Auditors in case of Non Government Companies:** Section 139(1) of the Companies Act, 2013 provides that 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.

The following points need to be noted in this regard-

- (i) The company shall place the matter relating to such appointment of ratification by member at every Annual General Meeting.
- (ii) Before such appointment is made, the written consent of the auditor to such appointment, and a certificate from him or it that the appointment, if made, shall be in accordance with the conditions as may be prescribed, shall be obtained from the auditor.

- (iii) The certificate shall also indicate whether the auditor satisfies the criteria provided in section 141.
  - (iv) The company shall inform the auditor concerned of his or its appointment, and also file a notice of such appointment with the Registrar within 15 days of the meeting in which the auditor is appointed.
- (c) Removal of Auditor before Expiry of Term:** According to Section 140 (1) the auditor appointed under section 139 may be removed from his office before the expiry of his term only by a special resolution of the company, after obtaining the previous approval of the Central Government.
- (1) The application to the Central Government for removal of auditor shall be made in Form ADT-2 and shall be accompanied with fees as provided for this purpose under the Companies (Registration Offices and Fees) Rules, 2014.
  - (2) The application shall be made to the Central Government within thirty days of the resolution passed by the Board.
  - (3) The company shall hold the general meeting within sixty days of receipt of approval of the Central Government for passing the special resolution.

It may be noted that before taking any action for removal before expiry of terms, the auditor concerned shall be given a reasonable opportunity of being heard.

By applying the above provisions, it may be concluded that the action of the company for removal of the auditor CA Z before expiry of term is not justified and auditor may be removed from his office only by following the above mentioned procedure.

- (d) Reporting requirements regarding Fixed Assets under CARO, 2016 are :**
- (i) Whether the company is maintaining proper records showing full particulars, including quantitative details and situation of fixed assets;
  - (ii) Whether these fixed assets have been physically verified by the management at reasonable intervals; whether any material discrepancies were noticed on such verification and if so, whether the same have been properly dealt with in the books of account;
  - (iii) Whether the title deeds of immovable properties are held in the name of the company. If not, provide the details thereof.

- 7. (a) Examination in Depth:** It implies examination of a few selected transactions from the beginning to the end through the entire flow of the transaction, i.e., from initiation to the completion of the transaction by receipt or payment of cash and delivery or receipt of the goods. This examination consists of studying the recording of transactions at the various stages through which they have passed. At each

stage, relevant records and authorities are examined; it is also judged whether the person who has exercised the authority in relation to the transactions is fit to do so in terms of the prescribed procedure. For example, a purchase of goods may commence when a predetermined re-order level has been reached. The ensuing stages may be summarised thus:

- (i) Requisitions are pre-printed, pre-numbered and authorised;
- (ii) official company order, also sequentially pre-numbered, authorised and placed with approved suppliers only;
- (iii) receipt of supplier's invoice;
- (iv) receipt of supplier's statement;
- (v) entries in purchases day book;
- (vi) postings to purchase ledger and purchase ledger control account;
- (vii) cheque in settlement;
- (viii) entry on bank statement and returned "paid" cheque (if requested);
- (ix) cash book entry;
- (x) posting from cash book to ledger and control account, taking into account any discounts.
- (xi) receipt of goods, together with delivery/advice note;
- (xii) admission of goods to stores;
- (xiii) indication, by initials or rubber stamp on internal goods inwards note, of compliance with order regarding specification, quantity and quality;
- (xiv) entries in stores records.

It should be noted that the above list is not necessarily comprehensive, nor does its constituent stages inevitably take place in the sequence suggested. The important point to note is that from the moment it was realised that once a re-order level had reached, a chain of events was put in motion, together leaving what may be termed as "audit trail". Each item selected for testing must be traced meticulously, and although sample sizes need not be large, they must, of course, be representative.

It is an acceptable practice to check a slightly smaller number of transactions at each successive stage within a depth test, on the statistical grounds (based on probability theory) that the optimum sample size decreases as the auditor's "level of confidence" concerning the functioning of the system increases. Examination in depth has been found indispensable in modern auditing practice and, if intelligently conducted, its reconstruction of the audit trail reveals more about the functioning (or malfunctioning) of the client's system in practice than the haphazard and mechanical approach to testing.

- (b) **Audit Trail:** An audit trail refers to a situation where it is possible to relate 'one-to-one' basis, the original input along with the final output. The work of an auditor would be hardly affected if "Audit Trail" is maintained i.e. if it were still possible to relate, on a 'one-to-one' basis, the original input with the final output. A simplified representation of the documentation in a manually created audit trail.

For example, the particular credit notes may be located by the auditor at any time he may wish to examine them, even months after the balance sheet date. He also has the means, should he so wish, of directly verifying the accuracy of the totals and sub-totals that feature in the control listing, by reference to individual credit notes. He can, of course, check all detailed calculations, casts and postings in the accounting records, at any time.

In first and early second-generation computer systems, such a complete and trail was generally available, no doubt, to management's own healthy scepticism of what the new machine could be relied upon to achieve – an attitude obviously shared by the auditor.

It is once iterated that there is an abundance of documentation upon which the auditor can use his traditional symbols of scrutiny, in the form of colored ticks and rubber stamps. Specifically:

- (i) The output itself is as complete and as detailed as in any manual system.
- (ii) The trail, from beginning to end, is complete, so that all documents may be identified by located for purposes of vouching, totalling and cross-referencing.

Any form of audit checking is possible, including depth testing in either direction.

- (c) **Intangible Assets:** An intangible asset is that asset which does not have a physical identity but which is used by the enterprise for production or supply of goods or for retails to other or for administrative purpose. Such asset does not have any physical existence but their presence in the business is indicated with a value placed thereon. These assets include rights and benefit to owners subject to their being useful. For example: goodwill, patents, copyright etc. AS 26, "Intangible Assets", applies to, among other things, expenditure on advertising, training, start-up, research and development activities. Research and development activities are directed to the development of knowledge. Therefore, although these activities may result in an asset with physical substance (for example, a prototype), the physical element of the asset is secondary to its intangible component, that is the knowledge embodied in it. This standard also applies to rights under licensing agreements for items such as motion picture films, video recordings, plays, manuscripts, patents and copyrights. An intangible asset should measured at cost. After initial recognition an intangible asset should be carried at its cost less any accumulated amortisation and any impairment losses.

Auditor should also ensure that proper disclosure is made in the financial statements about the carrying amount, amortisation methods, useful lives, etc.

- (d) **Sweat Equity Shares:** As per section 54 of the Companies Act, 2013, the employees may be compensated in the form of "Sweat Equity Shares".

"Sweat Equity Shares" means equity shares issued by the company to employees or directors at a discount or for consideration other than cash for providing know-how or making available right in the nature of intellectual property rights or value additions, by whatever name called.

The auditor may see that the Sweat Equity Shares issued by the company are of a class of shares already issued and following conditions are fulfilled:

- (i) the issue is authorised by a special resolution passed by the company;
- (ii) the resolution specifies the number of shares, the current market price, consideration, if any, and the class or classes of directors or employees to whom such equity shares are to be issued;
- (iii) not less than one year has, at the date of such issue, elapsed since the date on which the company had commenced business; and
- (iv) where the equity shares of the company are listed on a recognised stock exchange, the sweat equity shares are issued in accordance with the regulations made by the Securities and Exchange Board in this behalf and if they are not so listed, the sweat equity shares are issued in accordance with such rules as may be prescribed.

The rights, limitations, restrictions and provisions as are for the time being applicable to equity shares shall be applicable to the sweat equity shares issued under this section and the holders of such shares shall rank *pari passu* with other equity shareholders.

- (e) **Audit of Capital Reserve:** A capital reserve is a reserve which is not available for distribution as dividend. The auditor should examine that the head 'capital reserves' does not include any amounts as are regarded as free for distribution as dividend. In the case of a company, if there is a capital profit on reissue of forfeited shares, it is to be shown under capital reserves.

The following are the duties for the Auditor in connection with the capital profit, which are not normally available for distribution to the shareholders unless:

- (i) The Articles of the company permit such a distribution,
- (ii) It has been realised in cash.
- (iii) The assets value remaining after distribution of the profit will be not less than the book value so that share capital and reserves remaining after the distribution will be fully represented by the remaining assets.

Revaluation reserve is also not available for dividends. Further, the bonus share cannot be issued by capitalisation of revaluation reserve. If any company does so, the auditor should qualify his report.

It may however, be noted that revalued capital profits are distributable in the same way as other profits and that it is not necessary to comply condition (i) and (ii) above. This is because AS 10 requires that any profit on sale of fixed asset has to be routed through the profit and loss account. A clear distinction should be made between capital profits and capital receipts. The latter cannot be distributed by way of dividend at all.

Auditor should also ensure that the presentation and disclosure requirements of Schedule III to the Companies Act, 2013 have been complied with.



Test Series: August, 2016

**MOCK TEST PAPER – 1**  
**INTERMEDIATE (IPC): GROUP – II**  
**PAPER – 7: INFORMATION TECHNOLOGY AND STRATEGIC MANAGEMENT**  
**SECTION – A: INFORMATION TECHNOLOGY**

*Question No. 1 is compulsory.*

*Attempt any **five** questions from the rest.*

**Time Allowed – 1½ Hours**

**Maximum Marks – 50**

1. Answer all the following questions in brief.
  - (i) What are the advantages of using E-R Diagram?
  - (ii) Differentiate between Connection Oriented and Connectionless networks.
  - (iii) What do you understand by the term “Telecommunications Control Software”?
  - (iv) Define “Principle of Least Privilege” in Information Security.
  - (v) Discuss some of the advantages of Cloud Computing. (2 x 5 = 10 Marks)
2.
  - (a) Discuss the benefits and risks of Business Process Automation (BPA). (4 Marks)
  - (b) Discuss various advantages of using Flowchart. (4 Marks)
3.
  - (a) What are the important benefits of a computer network? (4 Marks)
  - (b) Discuss major activities that come under the ‘Conversion process’ in ‘System Implementation’. (4 Marks)
4.
  - (a) Discuss the various risk factors that are involved in an e-Commerce transaction. (4 Marks)
  - (b) Discuss in detail the term “Protocol”? (4 Marks)
5.
  - (a) Discuss Information System and its components, in brief. (4 Marks)
  - (b) Differentiate between Explicit Knowledge and Tacit Knowledge. (4 Marks)
6.
  - (a) Differentiate between Online Processing and Batch Processing. (4 Marks)
  - (b) Differentiate between Hardware Virtualization and Storage Virtualization. (4 Marks)
7. Write short notes on any **four** of the following.
  - (a) Six Sigma
  - (b) Network as a Service (Naas)
  - (c) Asynchronous Transmission
  - (d) Specialized Systems
  - (e) Communication Controls under Application Controls (4 × 2 = 8 Marks)

Test Series: August, 2016

**MOCK TEST PAPER – 1**  
**INTERMEDIATE (IPC) GROUP – II**  
**PAPER –7: INFORMATION TECHNOLOGY AND STRATEGIC MANAGEMENT**  
**SECTION – B: STRATEGIC MANAGEMENT**

*Question No.1 is compulsory.*

*Attempt any **five** questions from the rest.*

**Time Allowed – 1½ Hours**

**Maximum Marks – 50**

1. (a) Being a strategic professional, analyze and redesign the work flows in the context of business process reengineering. (3 Marks)
- (b) An established firm introduces a new product which has no affinity with its present product line and is meant for new customers. Identify and explain the diversification followed by the firm. (3 Marks)
- (c) Explain how technological factors present an opportunity as well as threat to a particular business organization. (3 Marks)
- (d) How would you argue that Research and Development Personnel are important for effective strategy implementation? (3 Marks)
- (e) Mission statement of a company focuses on the question: 'who we are' and 'what we do'. Explain briefly. (3 Marks)
2. (a) State with reasons which of the following statements is correct/incorrect:
  - (i) Control systems run parallel with strategic levels.
  - (ii) Human resource management aids in strategic management. (2 × 2 = 4 Marks)
- (b) Explain the meaning of the following concepts:
  - (i) Corporate Strategy
  - (ii) Cost leadership strategies
  - (iii) Synchro Marketing (3 × 1 = 3 Marks)
3. Write short notes on the following:
  - (a) Logistics Strategy. (2 Marks)
  - (b) Dealing with strategic uncertainty. (2 Marks)
  - (c) Objectives of SWOT analysis. (3 Marks)

4. "The role played by middle management is diminishing as the tasks performed by them are increasingly being replaced by the technological tools. "Elucidate the statement in terms of Hourglass organization structure". *(7 Marks)*
5. An organization wants to start a new business and would like to understand the structure of competition in the industry. Identify the factors that an organization should analyze. *(7 Marks)*
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 Marks)*
7. For implementing six sigma, there are two separate key methodologies for existing and new processes. Explain these methodologies. *(7 Marks)*

**MOCK TEST PAPER – 1**  
**INTERMEDIATE (IPC): GROUP – II**  
**PAPER – 7: INFORMATION TECHNOLOGY AND STRATEGIC MANAGEMENT**  
**SECTION – A: INFORMATION TECHNOLOGY**  
**SUGGESTED ANSWERS/HINTS**

1. (i) Advantages of using E-R Diagram are as follows:
- ER Modeling is simple and easily understandable. It is represented in business users' language and it can be understood by non-technical specialist.
  - Intuitive and helps in Physical Database creation.
  - Can be generalized and specialized based on needs.
  - Can help in database design.
  - Gives a higher level description of the system.
- (ii) **Connection Oriented networks:** There are the networks wherein a connection is first established and then data is exchanged like it happens in case of telephone networks.
- Connectionless Networks:** These are the networks where no prior connection is made before data exchanges. 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.
- (iii) **Telecommunications Control Software:** This consists of programs that control telecommunications activities and manage the functions of telecommunications networks. They include Telecommunication Monitors (mainframe host computers), Network Operating Systems (microcomputer network servers) for network servers, Network Management Components and Communication Packages (Microcomputer Web browsers). This software can reside on almost any component of the network and can provide such features as performance monitoring, activity monitoring, priority assigning, transmission error correction and network problem mitigation.
- (iv) **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, the terms 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.

(v) Advantages of Cloud Computing are as follows:

- **Cost Efficient:** Cloud computing is probably the most cost efficient method to use, maintain and upgrade.
- **Almost Unlimited Storage:** Storing information in the cloud gives us almost unlimited storage capacity.
- **Backup and Recovery:** Since all the data is stored in the cloud, backing it up and restoring the same is relatively much easier than storing the same on a physical device. Furthermore, most cloud service providers are usually competent enough to handle recovery of information.
- **Automatic Software Integration:** In the cloud, software integration is usually something that occurs automatically. Not only that, cloud computing allows us to customize the options with great ease. Hence, we can handpick just those services and software applications that we think will best suit the particular enterprise.
- **Easy Access to Information:** Once we register ourselves in the cloud, we can access the information from anywhere, where there is an Internet connection.
- **Quick Deployment:** Once we opt for this method of functioning, the entire system can be fully functional in a matter of a few minutes. Of course, the amount of time taken here will depend on the exact kind of technology that we need for our business.

2. (a) Benefits of using Business Process Automation (BPA) are as follows:

- ◆ **Saving on costs:** Automation leads to saving in time and labor costs.
- ◆ **Staying ahead in competition:** Today, in order to survive, businesses need to adopt automation.
- ◆ **Fast service to customers:** This was not the initial reason for adoption of BPA but gradually business managers realized that automation could help them to serve their customers faster and better.

Risks of using Business Process Automation (BPA) are as follows:

- ◆ **Risk to jobs:** Jobs that were earlier performed manually by several employees would post-automation would be mechanized, thereby posing a threat to jobs.

- ◆ **False sense of security:** Automating poor processes will not gain better business practices.
- (b) Advantages of using Flowchart are as follows:
- (i) **Quicker grasp of relationships** – Before any application can be solved, it must be understood, the relationship between various elements of the application must be identified. The programmer can chart a lengthy procedure more easily with the help of a flowchart than by describing it by means of written notes.
  - (ii) **Effective Analysis** – The flowchart becomes a blue print of a system that can be broken down into detailed parts for study. Problems may be identified and new approaches may be suggested by flowcharts.
  - (iii) **Communication** – Flowcharts aid in communicating the facts of a business problem to those whose skills are needed for arriving at the solution.
  - (iv) **Documentation** – Flowcharts serve as a good documentation which aid greatly in future program conversions. In the event of staff changes, they serve as training function by helping new employees in understanding the existing programs.
  - (v) **Efficient coding** – Flowcharts act as a guide during the system analysis and program preparation phase. Instructions coded in a programming language may be checked against the flowchart to ensure that no steps are omitted.
  - (vi) **Orderly check out of problem** – Flowcharts serve as an important tool during program debugging. They help in detecting, locating and removing mistakes.
  - (vii) **Efficient program maintenance** – The maintenance of operating programs is facilitated by flowcharts. The charts help the programmer to concentrate attention on that part of the information flow which is to be modified.
3. (a) The important benefits of a computer network are as follows:
- ◆ **Distributed nature of information:** There would be many situations where information has to be distributed geographically. E.g. in the case of Banking Company, accounting information of various customers could be distributed across various branches but to make Consolidated Balance Sheet at the year-end, it would need networking to access information from all its branches.
  - ◆ **Resource Sharing:** Data could be stored at a central location and can be shared across different systems. Even resource sharing could be in terms of sharing peripherals like printers, which are normally shared by many systems. E.g. In the case of a CBS, Bank data is stored at a Central Data Centre and could be accessed by all branches as well as ATMs.

- ◆ **Computational Power:** The computational power of most of the applications would increase drastically if the processing is distributed amongst computer systems. For example: processing in an ATM machine in a bank is distributed between ATM machine and the central Computer System in a Bank, thus reducing load on both.
  - ◆ **Reliability:** Many critical applications should be available 24x7, if such applications are run across different systems which are distributed across network then the reliability of the application would be high. For example - In a city, there could be multiple ATM machines so that if one ATM fails, one could withdraw money from another ATM.
  - ◆ **User communication:** Networks allow users to communicate using e-mail, newsgroups, video conferencing, etc.
- (b) In 'Conversion process' in 'System implementation', following are the major activities:
- ◆ **Direct Changeover:** The user stops using the old system one particular day and starts using the new system from thereon, usually over a weekend or during a slack period.
  - ◆ **Parallel Conversion:** The old system continues alongside the new system for a few weeks or months.
  - ◆ **Phased Conversion:** Used with larger systems that can be broken down into individual modules which can be implemented separately at different times.
  - ◆ **Pilot Conversion:** New system will first be used by only a portion of the enterprise, for example at one branch or factory.
4. (a) The risks associated with e-Commerce are multi-faceted. Some of them are as follows:
- ◆ **Problem of anonymity:** There is need to identify and authenticate users in the virtual global market where anyone can sell to or buy from anyone, anything from anywhere.
  - ◆ **Repudiation of contract:** There is possibility that the electronic transaction in the form of contract, sale order or purchase by the trading partner or customer may be denied.
  - ◆ **Lack of authenticity of transactions:** The electronic documents that are produced in the course of an e-Commerce transaction may not be authentic and reliable.
  - ◆ **Data Loss or theft or duplication:** The data transmitted over the Internet may be lost, duplicated, tampered with or replayed.
  - ◆ **Attack from hackers:** Web servers used for e-Commerce may be vulnerable to hackers.

- ◆ **Denial of Service:** Service to customers may be denied due to non-availability of system as it may be affected by viruses, e-mail bombs and floods.
  - ◆ **Non-recognition of electronic transactions:** e-Commerce transactions, as electronic records and digital signatures may not be recognized as evidence in courts of law.
  - ◆ **Lack of audit trails:** Audit trails in e-Commerce system may be lacking and the logs may be incomplete, too voluminous or easily tampered with.
  - ◆ **Problem of piracy:** Intellectual property may not be adequately protected when such property is transacted through e-Commerce.
- (b) **Protocol:** Communication protocols are rules established to govern the way the data are transmitted in a computer network. These rules are embedded or built into the software which resides either in – Computer's memory or Memory of transmission device. A protocol defines the following three aspects of digital communication.
- ◆ **Syntax:** The format of data being exchanged, character set used, type of error correction used, type of encoding scheme (e.g., signal levels) being used.
  - ◆ **Semantics:** Type and order of messages used to ensure reliable and error free information transfer.
  - ◆ **Timing:** Defines data rate selection and correct timing for various events during data transfer.

At the sending computer, protocols break data down into packets; add destination address to the packet; and prepares data for transmission through Network Interface Card (NIC). At the receiving computer, protocols take data packets off the cable; bring packets into computer through Network Interface Card (NIC); strip the packets off any transmitting information; copy data from packet to a buffer for reassembly; and pass the reassembled data to the application.

5. (a) **Information System:** Information System (IS) is a combination of people, hardware, software, communication devices, network and data resources that processes data and information for a specific purpose. The system needs inputs from user which will then be processed using technology devices such as computers, and produce output that will be sent to another user or other system via a network and a feedback method that controls the operation.

In general, any specific Information System aims to support operations, management and decision-making. The main aim and purpose of each Information System is to convert the data into information which is useful and meaningful. The components of an Information System are as follows:

- ◆ **People, Hardware, Software, Data and Networks** are the five basic resources of information systems;



- ◆ **People Resources** consist of end users and IT specialists; **Hardware resources** involve machines and media; **Software resources** include programs and procedures; **Data resources** include data and knowledge bases; and **Network resources** include communications media and networks;
- ◆ **Data Resources** are transformed by information processing activities into a variety of information products for end users; and
- ◆ Information processing consists of the system activities of input, processing, output, storage, and control.

(b) **Explicit knowledge:** Explicit knowledge is that which can be formalized easily and as a consequence is easily available across the organization. Explicit knowledge is articulated, and represented as spoken words, written material and compiled data. This type of knowledge is codified, easy to document, transfer and reproduce. For example – Online tutorials, Policy and procedural manuals.

**Tacit knowledge:** Tacit knowledge, on the other hand, resides in a few often-in just one person and hasn't been captured by the organization or made available to others. Tacit knowledge is unarticulated and represented as intuition, perspective, beliefs, and values that individuals form based on their experiences. It is personal, experimental and context-specific. It is difficult to document and communicate the tacit knowledge. For example – hand-on skills, special know-how, employee experiences.

6. (a) **Batch Processing:** It is defined as a processing of large set of data in a specific way, automatically, without needing any user intervention. The data is first collected, during a work day, for example, and then batch-processed, so all the collected data is processed in one go. This could happen at the end of the work day, for example, when computing capacities are not needed for other tasks. It is possible to perform repetitive tasks on a large number of pieces of data rapidly without needing the user to monitor it. Batched jobs can take a long time to process. Batch processing is used in producing bills, stock control, producing monthly credit card statements, etc.

**Online Processing:** Data is processed immediately while it is entered, the user usually only has to wait a short time for a response. (Example: games, word processing, booking systems). Interactive or online processing requires a user to supply an input. Interactive or online processing enables the user to input data and get the results of the processing of that data immediately.

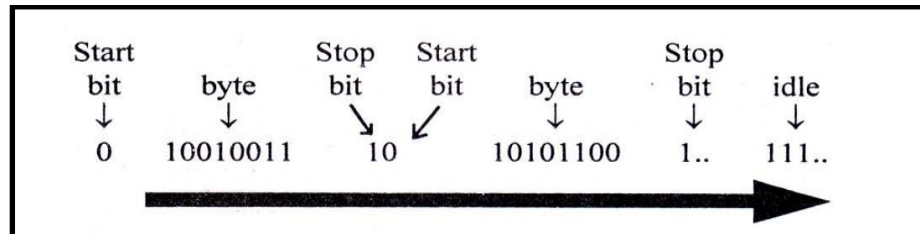
(b) **Hardware Virtualization:** Hardware Virtualization refers to the creation of a virtual machine that acts like a real computer with an operating system. Software executed on these virtual machines is separated from the underlying hardware resources. For example, a computer that is running Microsoft Windows may host a virtual machine that looks like a computer with the Linux operating system; based software that can

be run on the virtual machine. The basic idea of Hardware virtualization is to consolidate many small physical servers into one large physical server so that the processor can be used more effectively.

**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."

7. (a) **Six Sigma:** Six Sigma is a set of strategies, techniques, and tools for process improvement. It seeks to improve the quality of process outputs by identifying and removing the causes of defects and minimizing variability in manufacturing and business processes. It follows a life-cycle having phases:
- ◆ **Define:** Customers are identified and their requirements are gathered.
  - ◆ **Measure:** Data on current process are gathered and current baseline performance for process output measures are established.
  - ◆ **Analyze:** Using statistical methods and graphical displays, possible causes of process output variations are identified.
  - ◆ **Improve:** Solution alternatives are generated to fix the root cause. The most appropriate solution is identified using solution prioritization matrix and validated using pilot testing.
  - ◆ **Control:** Before and after analysis is performed on the new process to validate expected results, monitoring system is implemented to ensure process is performing as designed.
- (b) **Network as a Service (NaaS):** It is a category of cloud services where the capability provided to the cloud service user is to use network/transport connecting services. NaaS involves optimization of resource allocation by considering network and computing resources as a whole. Some of the examples are: Virtual Private Network, Mobile Network Virtualization etc.
- (c) **Asynchronous Transmission:** In this, each character is sent at irregular intervals in time as in the case of characters entered at the keyboard in real time. So, the sender provides a synchronization signal to the receiver before starting the transfer of each message. For example, imagine that a single byte is transmitted during a long period of silence the receiver will not be able to know if this is 00010000, 10000000 or 00000100. To correct this problem, each character is preceded by

some information indicating the start of character transmission by start-of-transmission information (called a **START** bit usually 0) and ends by sending end-of-transmission information (called **STOP** bit usually 1).



- (d) **Specialized Systems:** Specialized Systems provide comprehensive end to end IT solutions and services including systems integration, implementation, engineering services, software application customization and maintenance to various corporations in India and other part of a world. Specialized Systems also offer comprehensive solutions to various sectors to confront challenges, and convert every challenge into an opportunity. There are various specialized systems like Enterprise Resource Planning (ERP), Core Banking System (CBS), Human Resource Management Systems (HRMS), and Supply Chain Management (SCM) etc.
- (e) **Communication Controls:** Components in the communication subsystem are responsible for transporting data among all the other subsystems within a system and for transporting data to or receiving data from another system. Three types of exposure arise in the communication subsystem.
- ◆ As data is transported across a communication subsystem, it can be impaired through attenuation, delay distortion, and noise.
  - ◆ The hardware and software components in a communication subsystem can fail.
  - ◆ The communication subsystem can be subjected to passive or active subversive attacks.

The communication controls can be Physical Component Controls, Line Error Controls, Flow Controls, Link Controls, Topological Controls, Channel Access Controls and Internetworking Controls.

**MOCK TEST PAPER – 1**

**INTERMEDIATE (IPC): GROUP – II**

**PAPER – 7: INFORMATION TECHNOLOGY AND STRATEGIC MANAGEMENT**

**SECTION – B: STRATEGIC MANAGEMENT**

**SUGGESTED ANSWERS/HINTS**

1. (a) Business Process Reengineering (BPR) refers to the analysis and redesign of workflows and processes both within and between the organizations. The orientation of the redesign effort is radical. It involves total deconstruction and rethinking of a business process in its entirety.

The workflows are studied, appraised and improved in terms of time, cost, output, quality, and responsiveness to customers. The redesign effort aims to simplify and streamline a process by eliminating all extra avoidable steps, activities, and transactions. With the help of redesigning workflows, organizations can drastically reduce the number of stages of work, and improve their performance.

- (b) When an established firm introduces a new product which has little or no affinity with its present product line and which is meant for a new class of customers different from the firm's existing customer groups, the process is known as conglomerate diversification. In conglomerate diversification, the new businesses/products are disjointed from the existing businesses/products in every way; it is a totally unrelated diversification. In process/technology/function, there is no connection between the new products and the existing ones. Conglomerate diversification has no common thread at all with the firm's present position.

- (c) Technology is the most dynamic of all the environmental factors. Changes in technology vitally affect the enterprise's costs, profitability, plant location decisions, product lines, growth and development.

Technology can act as both opportunity and threat to a business. It can act as opportunity as business can take advantage of adopting technological innovations to their strategic advantage. However, at the same time technology can act as threat if organisations are not able to adopt it to their advantage. For example, an innovative and modern production system can act as weakness if the business is not able to change their production system. New entrants or existing competitors can always use availability of technological improvements in products or production methods that can be a threat to a business.

Technological opportunities and threats are not limited to the product or production. Technology permeates whole gambit of business. It can transform how a business acts and functions.

- (d) Research and Development (R&D) personnel can play an integral part in strategy implementation. These individuals are generally charged with developing new products and improving old products in a way that will allow effective strategy implementation. R&D employees and managers perform tasks that include transferring complex technology, adjusting processes to local raw materials, adapting processes to local markets, and altering products to particular tastes and specifications.

Strategies such as product development, market penetration, and concentric diversification require that new products be successfully developed and that old products be significantly improved. But the level of management support for R&D is often constrained by resource availability.

- (e) A company's mission statement is typically focused on its present business scope—"who we are and what we do"; mission statements broadly describe an organization's present capabilities, customer focus activities and business makeup. An organization's mission states what customers it serves, what need it satisfies, and what type of product it offers. It is an expression of the growth ambition of the organization. It helps organization to set its own special identity, business emphasis and path for development. Mission amplifies what brings the organization to this business or why it is there, what existence it seeks and what purpose it seeks to achieve as a business organization.

In other words, the mission serves as a justification for the firm's very presence and existence; it legitimizes the firm's presence.

2. (a) (i) **Correct:** There are three strategic levels – corporate, business and functional. Control systems are required at all the three levels. At the top level, strategic controls are built to check whether the strategy is being implemented as planned and the results produced by the strategy are those intended. Down the hierarchy management controls and operational controls are built in the systems. Operational controls are required for day-to-day management of business.
- (ii) **Correct:** The human resource management helps the organization to effectively deal with the external environmental challenges. The function has been accepted as a partner in the formulation of organization's strategies and in the implementation of such strategies through human resource planning, employment, training, appraisal and rewarding of personnel.
- (b) (i) Corporate strategy is basically the growth design of the firm; it spells out the growth objective - the direction, extent, pace and timing of the firm's growth. It also spells out the strategy for achieving the growth. It serves as the design for filling the strategic planning gap. It also helps build the relevant competitive advantages.

- (ii) A number of cost elements affect the relative attractiveness of generic strategies. A successful cost leadership strategy usually permeates the entire firm, as evidenced by high efficiency, low overhead cost, and waste reduction. The low cost leadership should be such that no competitors are able to imitate so that it can result in sustainable competitive advantage to the cost leader firm.
  - (iii) Synchro-marketing: When the demand for the product is irregular causing idle capacity or over-worked capacities, synchro-marketing can be used to find ways to alter the pattern of demand so that it equates more suitably with the pattern of supply. It can be done through flexible pricing, promotion, and other incentives.
3. (a) Management of logistics is a process which integrates the flow of materials into, through and out of an organization to achieve a level of service that the right materials are available at the right place at the right time, of right quality and at the right cost. For a business organization effective logistics strategy will involve raising and finding solutions to the questions relating to raw material, manufacturing locations, products, transportation and deployment of inventory. Improvement in logistics can result in saving in cost of doing business.

When a company creates a logistics strategy, it is defining the service levels at which its logistics systems are highly effective. A company may develop a number of logistics strategies for specific product lines, specific countries or specific customers to address different categorical requirements.

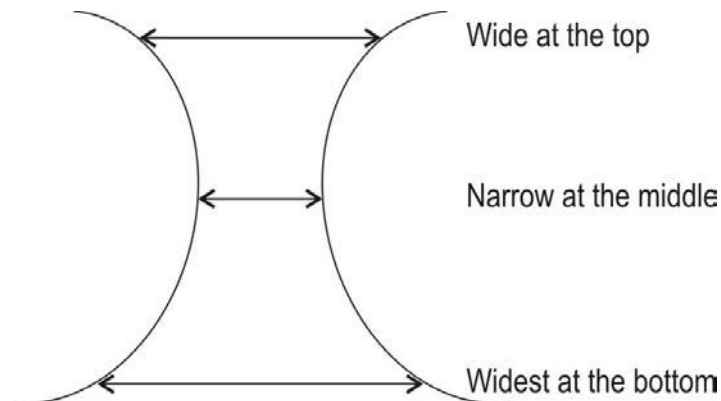
- (b) A typical external analysis will emerge with dozens of strategic uncertainties. To be manageable, they need to be grouped into logical clusters or themes. It is then useful to assess the importance of each cluster in order to set priorities with respect to Information gathering and analysis.

Sometimes the strategic uncertainty is represented by a future trend or event that has inherent unpredictability. Information gathering and additional analysis will not be able to reduce the uncertainty. In that case, scenario analysis can be employed. Scenario analysis basically accepts the uncertainty as given and uses it to drive a description of two or more future scenarios. Strategies are then developed for each. One outcome could be a decision to create organizational and strategic flexibility so that as the business context changes the strategy will adapt.

- (c) In SWOT analysis 'strengths' and 'opportunities' are positive considerations and 'weaknesses' and 'threats' are negative considerations. The basic objectives of conducting SWOT analysis are:
  - ◆ To exploit the strengths of the company to achieve its objectives.
  - ◆ To identify the shortcomings in the company's present skills and resources and to take necessary corrective steps so that the overall interest of the organisation is

protected.

- ◆ To focus on profit making opportunities in the business environment and for identifying threats.
  - ◆ To highlight areas within the company, which are strong and might be exploited more and weaknesses, where some defensive planning might be required to prevent the company from downfall.
4. In the recent years information technology and communications have significantly altered the functioning of organizations. The role played by middle management is diminishing as the tasks performed by them are increasingly being replaced by the technological tools. Hourglass organization structure consists of three layers with constricted middle layer. The structure has a short and narrow middle-management level. Information technology links the top and bottom levels in the organization taking away many tasks that are performed by the middle level managers. A shrunken middle layer coordinates diverse lower level activities. Contrary to traditional middle level managers who are often specialist, the managers in the hourglass structure are generalists and perform wide variety of tasks. They would be handling cross-functional issues emanating such as those from marketing, finance or production.



**Figure: Hourglass Organisation Structure**

Hourglass structure has obvious benefit of reduced costs. It also helps in enhancing responsiveness by simplifying decision making. Decision making authority is shifted close to the source of information so that it is faster. However, with the reduced size of middle management the promotion opportunities for the lower levels diminish significantly. Continuity at same level may bring monotony and lack of interest and it becomes difficult to keep the motivation levels high. Organisations try to overcome these problems by assigning challenging tasks, transferring laterally and having a system of proper rewards for performance.

5. Industry and competitive analysis can be done using a set of concepts and techniques to get a clear understanding of key industry traits, the intensity of competition, the drivers of

industry change, the market positions and strategies of rival companies, the keys to competitive success, and the industry's profit outlook. The factors that can be analysed are:

### **Dominant economic features of the industry**

Industries differ significantly in their basic character and structure. Industry and competitive analysis begins with an overview of the industry's dominant economic features. The factors to consider in profiling an industry's economic features are market size, scope of competitive rivalry (local, regional, national, international, or global), market growth rate and position in the business life, number of rivals and their relative sizes, number of buyers and their relative sizes and so on.

### **Nature and strength of competition**

An important component of industry and competitive analysis is to identify what the main sources of competitive pressure are and how strong each competitive force is. This analytical step is essential because managers cannot devise a successful strategy without in-depth understanding of the industry's competitive character. Even though competitive pressures in various industries are never precisely the same, the competitive process works in a similar fashion to use a common analytical framework in gauging the nature and intensity of competitive forces.

### **Triggers of change**

An industry's economic features and competitive structure say a lot about its fundamental character but little about the ways in which its environment may be changing. All industries are characterized by trends and new developments that gradually produce changes important enough to require a strategic response.

### **Identifying the companies that are in the strongest/weakest positions**

The next step in examining the industry's competitive structure is to study the market positions of rival companies. One technique for revealing the competitive positions of industry participants is **strategic group mapping**, which is useful analytical tool for comparing the market positions of each firm separately or for grouping them into like positions when an industry has so many competitors that it is not practical to examine each one in depth.

### **Likely strategic moves of rivals**

Unless a company pays attention to what competitors are doing, it ends up flying blind into competitive battle. A company can't expect to outmanoeuvre its rivals without monitoring their actions, understanding their strategies, and anticipating what moves they are likely to make next. Competitive intelligence about the strategies rivals are deploying, their latest moves, their resource strengths and weaknesses, and the plans they have announced is essential to anticipating the actions they are likely to take next and what bearing their moves might have on a company's own best strategic moves.



### **Key factors for competitive success**

Key Success Factors (KSFs) are those things that most affect industry members' ability to prosper in the marketplace - the particular strategy elements, product attributes, resources, competencies, competitive capabilities, and business outcomes that spell the difference between profit and loss and, ultimately, between competitive success or failure. KSFs by their very nature are so important that all firms in the industry must pay close attention to them.

### **Prospects and financial attractiveness of industry**

The final step of industry and competitive analysis is to use the results of analysis of previous six issues to draw conclusions about the relative attractiveness or unattractiveness of the industry, both near-term and long-term. Strategists are obligated to assess the industry outlook carefully, deciding whether industry and competitive conditions present an attractive business opportunity for the company or whether the company's growth and profit prospects are gloomy.

6. The business organization and its many environments have innumerable 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. For implementing six sigma, there are two separate key methodologies for existing and new processes. They are known as DMAIC and DMADV.

DMAIC is an acronym for five different steps used in six sigma - Define, Measure, Analyze Improve, and Control. DMAIC methodology is directed towards improvement of existing product, process or service.

- Define: To begin with six sigma experts define the process improvement goals that are consistent with the strategy of the organization and customer demands. They discuss different issues with the senior managers so as to define what needs to be done.
- Measure: The existing processes are measured to facilitate future comparison. Six sigma experts collect process data by mapping and measuring relevant processes.
- Analyze: Verify cause-and-effect relationship between the factors in the processes. Experts need to identify the relationship between the factors. They have to make a comprehensive analysis to identify hidden or not so obvious factor.
- Improve: On the basis of the analysis experts make a detailed plan to improve.
- Control: Initial trial or pilots are run to establish process capability and transition to production. Afterwards continuously measure the process to ensure that variances are identified and corrected before they result in defects.

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.

However, in spite of different orientation in two methodologies, conceptually there is overlapping between the DMAIC and DMADV as both are essentially having similar objectives.