

5. BUSINESS PROCESS AUTOMATION

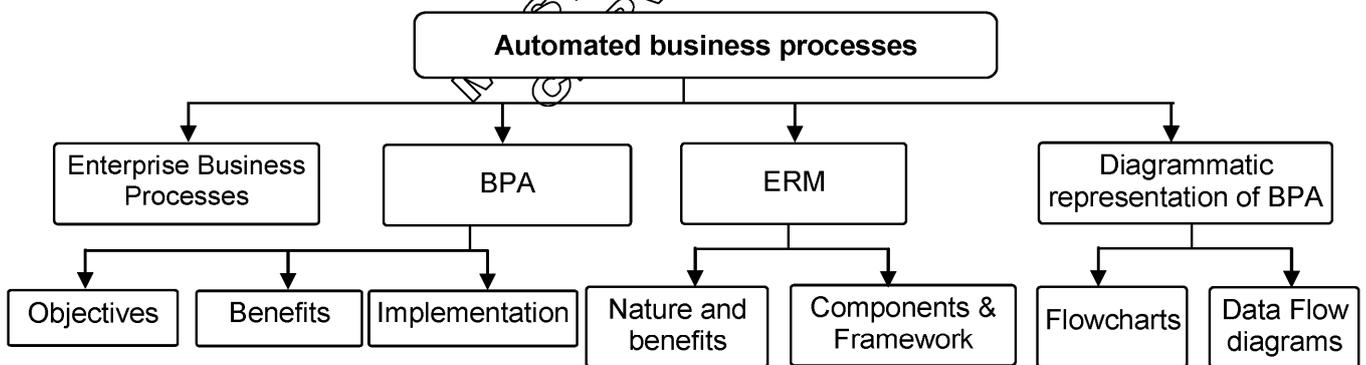
QUESTION WISE ANALYSIS OF PREVIOUS EXAMINATIONS

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CHAPTER OVERVIEW

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SECTION 1: THEORY FOR CLASSROOM DISCUSSION



PART 1: ENTERPRISE BUSINESS PROCESSES

Q.No.1. Write about EIS?

(B)

- 1) An **Enterprise Information System (EIS)** improves the functions of an enterprise business processes by integration.
- 2) An EIS provide a technology platform that enables organizations to integrate and coordinate their business processes on a strong foundation.
- 3) An EIS provides a single centralized system that ensures information sharing across all functional levels and management hierarchies.
- 4) An EIS can be used to increase business productivity and reduce service cycles, product development cycles and marketing life cycles. Other outcomes include higher operational efficiency and cost savings.

SIMILAR QUESTION:

1. Modern day organisations require an integrated information processing and sharing avenues. How can the organisations meet their needs?
 - A. Refer the above answer.
2. Enterprise systems create a standard data structure and are invaluable in eliminating the problem of information fragmentation caused by multiple information systems within an organization. An EIS differentiates itself from legacy systems in that it is self-transactional, self-helping and adaptable to general and specialist conditions. Then what exactly is an EIS?
 - A. Refer above answer.

Q.No.2. Define Business Processes? What are the Categories of Business Processes?**(B)(MTP-M18, N18)****BUSINESS PROCESS:**

- 1) A **Business Process** is an activity or set of activities that will accomplish a specific organizational goal.
- 2) Business processes are designed as per vision and mission of top management.
- 3) The success or failure of an organization is dependent on how meticulously ^(=carefully) business processes have been designed and implemented.

CATEGORIES OF BUSINESS PROCESSES: Depending on the organization, industry and nature of work, business processes are often broken up into different categories.

- 1) Operational Processes / Primary Process
- 2) Supporting Processes / Secondary Process
- 3) Management Processes

SIMILAR QUESTION:

1. Write short note on Business Processes?
 - A. Refer "Business Processes" side heading above.
2. The need for and advantages of a business process are quite apparent in large organizations. A process forms the lifeline for any business and helps it streamline individual activities, making sure that resources are put to optimal use. Then what actually do you think about business process, make a brief note along with the categorization of business processes.
 - A. Refer above answer.

Q.No.3. Define the terms Operational Processes, Supporting Processes and Management Processes? (B)

- 1) **OPERATIONAL PROCESSES (OR PRIMARY PROCESSES):** These processes deals with core business and deliver direct value to the customer. Operational processes helps to achieve business objectives.
Examples: Generating revenue - Order to Cash cycle, Procurement - Purchase to Pay cycle.
- 2) **SUPPORTING PROCESSES (OR SECONDARY PROCESSES):** Supporting Processes back core processes and functions within an organization. Unlike operational processes, support processes do not provide value to customers directly.
Examples: Accounting, HRM .
- 3) **MANAGEMENT PROCESSES:** Management processes measure, monitor and control activities related to business procedures and systems. Management processes also do not provide value directly to the customers but have direct impact on the efficiency of the enterprise.
Examples: internal communications, governance, strategic planning, budgeting.

SIMILAR QUESTIONS:

1. To efficiently run an organisation several processes are required to be followed at various levels of the organisation in this context list out the business processes.
 - A. Refer the above answer.

2. Business Process Automation is fundamental to make your business run and succeed. As technology evolves rapidly and businesses adopt the new operation improvement techniques, it is essential to understand in depth how these techniques can be also applied to your business by analyzing and categorizing your own business processes. Comment
- A. Refer above answer.

PART 2: AUTOMATED BUSINESS PROCESSES

Q.No.4. Define the term Business Process Automation? Explain objectives of BPA?

(A)

BUSINESS PROCESS AUTOMATION (BPA):

- 1) It can be defined as removing the human element from existing business processes by automating the repetitive or standardized process components.
- 2) BPA is the technology-enabled automation of company activities, including sales, operations, supply chain, human resources etc.
- 3) In other words, BPA is the tactic a business uses to automate processes to operate efficiently and effectively.
- 4) It consists of integrating applications and using software applications throughout the organization.

FACTORS AFFECTING BPA SUCCESS or OBJECTIVES OF BPA:

- 1) **Confidentiality:** To ensure that data is only available to persons who have right to see the same;
- 2) **Integrity:** To ensure that no un-authorized amendments can be made in the data;
- 3) **Availability:** To ensure that data is available when asked for; and
- 4) **Timeliness:** To ensure that data is made available in at the right time.

To ensure that all the above parameters are met, BPA needs to have appropriate internal controls put in place.

SIMILAR QUESTION:

1. Removing the human element from the process makes the process more effective and efficient in this context comment about BPA and its objectives.
- A. Refer the above answer.
2. BPA goes beyond traditional data management and records to advanced software systems and programs that integrate all your applications. Automation can permit your company to maintain control over various issues, such as customer relationships, analytics, planning, sales, standardization, and development. Then what is BPA? Make a list of the factors that affect the success of BPA.
- A. Refer above answer.

Q.No.5. Explain Benefits of Automating Business Process?

(A) (RTP-M18)(M-19)(MTP-M20)

BENEFITS OF AUTOMATING BUSINESS PROCESS:

- 1) **Quality & Consistency:** BPA ensures that every action is performed identically - resulting in high quality, reliable results and stakeholders will consistently experience the same level of service.
- 2) **Time Saving:**
 - a) Automation reduces the number of tasks employees needs to do manually.
 - b) It frees up time to work on tasks that add genuine value to the business.
- 3) **Visibility:** Automated processes operate accurately within the defined timeline. It gives visibility of the process status to the organisation.
- 4) **Improved Operational efficiency:**
 - a) Automation reduces the time, effort and cost to achieve a task.
 - b) Automation ensures smooth, efficient and error free systems.

- 5) **Governance & Reliability:** Consistent and reliable automated business processes helps stakeholders to offer reliable processes to customers, to maintain a competitive advantage.
- 6) **Reduced Turnaround Times:** BPA Realigns and eliminate unnecessary process steps to improve operational performance and reduces the turnaround times for both staff and external customers.
- 7) **Reduced Costs:** Manual tasks will cost more in terms of speed and time. Automation allows you accomplish more by utilising fewer resources.

SIMILAR QUESTION:

1. A travel agency ABC wishes to implement an automated grievance management system at its workplace to manage and handle the problems with an aim of solving them. Determine the major benefits that will be drawn out of automating this grievance related business process. (MTP M18)
- A. Refer above answer.
2. A field service company was working with a transportation business whose goal was to grow from 75 to 175 drivers without any increasing their back-end staff. What they wanted is what every business wants, to boost productivity. In this context how can Automation help the transportation business in the above case?
- A. Refer above answer.

Q.No.6. What are the steps to be taken while implementing Business Process Automation?

(B)(MTP-N18,M19)

Step 1: Define why we plan to implement a BPA: The primary purpose of automation may vary from enterprise to enterprise.

Step 2: Understand the rules / regulation under which enterprise needs to comply with: BPA needs to comply with applicable laws and regulations of the corporate, local, state and central authorities.

Step 3: Document the process, we wish to automate: All documents of the current processes need to be documented. The benefits are clarity, knowing sources of inefficiency, focusing on desired result.

Step 4: Define the objectives/goals to be achieved by implementing BPA: This enables the developer and user to understand the reasons for going for BPA and determine the key objectives of the process improvement. The goals need to be precise, clear and SMART.

Step 5: Engage the business process consultant: Once the entity has been able to define the above, the entity needs to appoint an objective, experienced, capable, expert as consultant to implement BPA for the entity.

Step 6: Calculate the ROI for project: ROI needs to be calculated covering technical and financial feasibility to get approval from top management to implement the BPA.

Step 7: Developing the BPA: Once the documentation, ROI calculations, and top management approval are received, the consultant develops the requisite BPA.

Step 8: Testing the BPA: Once BPA is developed, it is important to test the new process to determine how well it works. It gives scope for improvements before realistic implementation of BPA.

SIMILAR QUESTION:

1. A manufacturing organisation wants to automate some of its processes and reduce human intervention. what steps should the organisation follow to automate its business processes?
- A. Refer the above answer.
2. Across industries, businesses are increasingly adopting and expanding the use of automation to manage various types of processes. How effective and well-thought-out your strategy and plan is has a direct effect on the ultimate flow of work and desired outcomes. So, what is the procedure followed to automate business process?
- A. Refer above answer

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PART 3: ENTERPRISE RISK MANAGEMENT

Q.No.7. Define the term Enterprise Risk Management and Write its nature.

(A)

ENTERPRISE RISK MANAGEMENT (ERM): It may be defined as a process affected ^(=adopted, inclined) by management, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

NATURE OF ERM

- 1) The premise of ERM is that every entity, whether for profit, not-for-profit, or a governmental body, exists to provide value for its stakeholders.
- 2) ERM provides a framework for management to effectively deal with risk and opportunities associated with uncertainty and thereby enhance entity's capacity to build value.
- 3) IT security and controls covering all operations of the enterprise are a part of ERM strategy. Hence, management should ensure that IT risks are considered while formulating over-all ERM strategy.

SIMILAR QUESTIONS:

1. While a company's strategy drives its value creation, it also entails risk-taking; when strategies change or new initiatives are implemented, new risks may be introduced or existing risks could change. The greater the degree of integration between strategy and risk management, the more likely it is that a company will be able to successfully implement its strategy. The preceding discussion is about importance of ERM then what do you understand about ERM and its nature?
A. Refer above answer.

Q.No.8. What are the Benefits of Enterprise Risk Management?

(A) (N-18)

BENEFITS OF ERM ARE:

- 1) **Align risk appetite and strategy:** Risk appetite is the degree of risk that an enterprise is willing to accept; Management considers the entity's risk appetite in evaluating strategic alternatives, setting objectives and in developing mechanisms to manage the related risks.
- 2) **Link growth, risk and return:** ERM provides an enhanced ability to identify and assess risks, and establish acceptable levels of risk relative to growth and return objectives.
- 3) **Enhance risk response decisions:** ERM provides methodologies and techniques to identify and select alternative risk responses like risk avoidance, reduction, sharing and acceptance.
- 4) **Minimize operational surprises and losses:** ERM helps to reduce the occurrence of surprises and related costs or losses by giving the entities enhanced capability to identify potential events, assess risk and establish responses.
- 5) **Identify and manage cross-enterprise risks:** ERM helps Management to not only manage individual risks, but also understand interrelated impacts.
- 6) **Provide integrated responses to multiple risks:** ERM enables integrated solutions for managing the inherent risks.
- 7) **Seize opportunities:** ERM helps management to gain an understanding of how certain potential events represent opportunities.
- 8) **Rationalize capital:** More strong information on an entity's total risk allows management to more effectively assess overall capital needs and improve capital allocation.

SIMILAR QUESTIONS:

1. Organizations should have ERM strategy to combat entity risks and ensure survival and stability of the organisation in this context list out the benefits that accrue to the organizations through ERM strategy.
A. Refer the above answer.
2. As business risks continue to increase, organizations are finding it necessary to implement some sort of formal risk management system. An effective enterprise risk management (ERM) program can help organizations manage their risks and maximize opportunities. Organizations in all types of industries, public and private, have observed a variety of benefits from enhancing their risk management programs can you make a list of the few of the benefits.
A. Refer above answer.

Q.No.9. what is ERM framework? Explain the Components of Enterprise Risk Management Framework? (N 20-6M) (RTP-N20) (B)

ERM Framework: ERM provides a framework for risk management which typically involves identifying events or circumstances relevant to the organization's objectives (risks and opportunities), assessing them in terms of likelihood and magnitude of impact, determining a response strategy, and monitoring progress.

COMPONENTS OF ERM FRAMEWORK ARE:

- 1) **Internal Environment:** It sets the foundation for how risk and control including risk management philosophy and risk appetite are viewed and addressed by an entity's people.
- 2) **Objective Setting:** ERM ensures that management has a process in place to set, choose, align objectives with the entity's mission/vision and are consistent with the entity's risk appetite.
- 3) **Event Identification:** Event identification includes identifying internal and external factors which may cause risks or opportunities which may influence strategy implementation and achievement of objectives.
- 4) **Risk Assessment:** Risks are assessed on both an inherent and a residual basis, and the assessment considers both risk likelihood and impact.
- 5) **Risk Response:** Management selects an approach or set of actions to align assessed risks with the entity's risk tolerance and risk appetite, in the context of the strategy and objectives, possible responses includes avoiding, accepting, reducing and sharing risk.
- 6) **Control Activities:** Policies and procedures are established and executed to help ensure that the risk responses management selected are effectively carried out.
- 7) **Information and Communication:** Information is needed at all levels of an entity for identifying, assessing and responding to risk. Effective communication also should occur. *Personnel need to receive clear communication regarding their role and responsibilities.*
- 8) **Monitoring:** The entire ERM process should be monitored through ongoing management activities and separate evaluations to make ERM dynamic.

SIMILAR QUESTION:

1. Successful implementation of the ERM strategy requires certain components to be in place. list out the components of ERM.
 - A. Refer the above answer.
2. An ERM framework and model supports a management competency to manage risks well, comprehensively, and with an understanding of the interrelationship/correlation among various risks. The successful institution incorporates a robust ERM capability and strategy as part of its culture by integrating what already exists to create a comprehensive and integrated view of the institution's risk profile in the context of its business strategy. Then write a brief note on the components that comprise the ERM framework?
 - A. Refer above answer

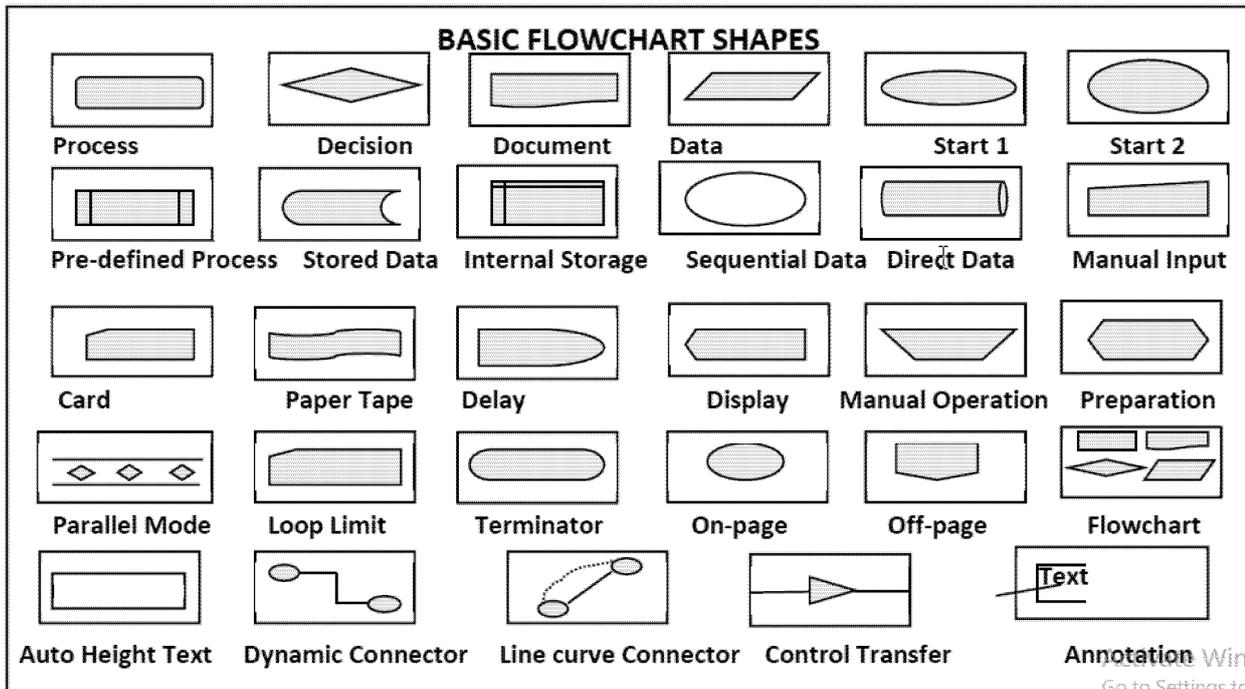
PART 4: DIAGRAMMATIC REPRESENTATION OF BUSINESS PROCESSES

Q.No.10. Discuss the concept of Flowcharts?

(B)

INTRODUCTION TO FLOWCHARTS:

- 1) A Flowchart is a diagram prepared by the programmer of the sequence of steps involved in solving a problem.
- 2) Flowcharts are used in designing and documenting simple processes or programs.
- 3) They help visualize what is going on and thereby help understand a process, and perhaps also find flaws, bottlenecks, and other less-obvious features within it.
- 4) The two most common types of boxes in a flowchart are as follows:
 - a) A processing step, usually called **activity**, and denoted as a **rectangular box**.
 - b) A **decision** usually denoted as a **diamond**.



SIMILAR QUESTION:

1. Managers appreciate understanding what their programmers have written, even if they are not proficient enough to write the code by themselves. In fact, flow charts are so easy that even non-programmers and novices can understand program logic. Then what is a flowchart?

Ans: Refer answer above

Q.No.11. What are the Steps for creating flowcharts for business processes? (B)

STEPS FOR CREATING FLOWCHARTS FOR BUSINESS PROCESSES:

- 1) Identify the business process that is to be documented with a flowchart and establish the overall goal of the business process.
- 2) Based on inputs from the business process owner obtain a complete understanding of the process flow.
- 3) Prepare an initial rough diagram and discuss with the business process owner to confirm your understanding of the processes.
- 4) Obtain additional information about the business process from the people involved in each step, such as end users, stakeholders, administrative assistants and department heads.
- 5) Identify the activities in each process step and who is responsible for each activity.
- 6) Identify the starting point of the process. The starting point of a business process should be what triggers the process to action. In other words, it is the input that the business seeks to convert into an output.
- 7) Separate the different steps in the process. Identify each individual step in the process and how it is connected to the other steps.
- 8) Clarify who or what performs each step. To make the process as clear as possible, you should determine which part of the business completes each step.

Q.No.13. Discuss Advantages of Flowcharting? (A)(N-19)

ADVANTAGES OF FLOWCHARTS:

- 1) **Quicker grasp of relationships:** Flowchart can represent a lengthy procedure more easily by showing relationship between various elements of the application program/business process.

- 2) **Effective Analysis:** 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.
- 3) **Communication:** Flowcharts helps in communicating the facts of a business problem to those who tries to find solution.
- 4) **Documentation:** Flowcharts serve as a good documentation which aid greatly in **future** program conversions. They are helpful to new employees in understanding the existing programs.
- 5) **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.
- 6) **Program Debugging:** They help in detecting, locating and removing mistakes.
- 7) **Efficient program maintenance:** The charts help the programmer to concentrate attention on that part of the information flow which is to be modified.
- 8) **Identifying Responsibilities:** Specific business processes can be clearly identified to functional departments thereby establishing responsibility of the process owner.
- 9) **Establishing Controls:** Business process conflicts and risks can be easily identified for recommending suitable controls.

SIMILAR QUESTION:

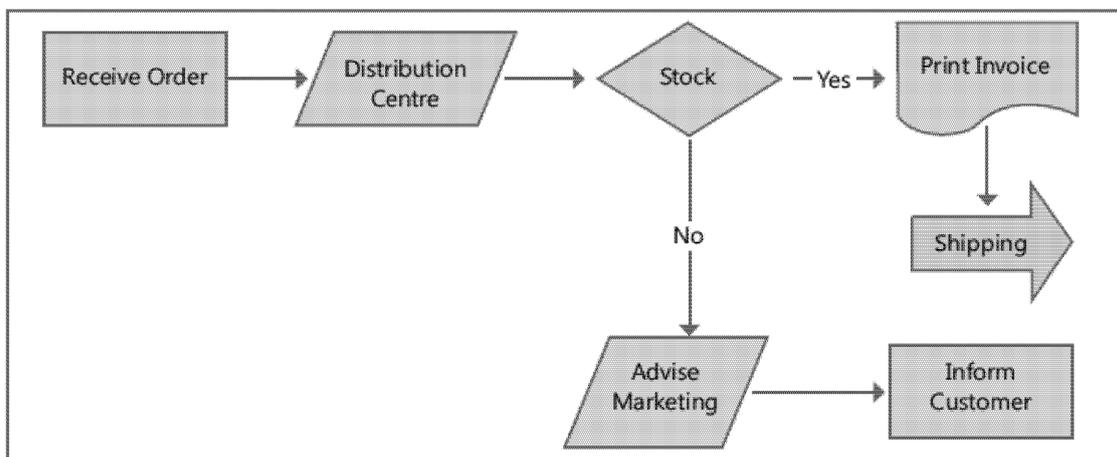
1. Write the merits of Flow charting?
 - A. Refer above answer.
2. Since a flowchart is a visual representation, we can use it documenting simple processes, designing and make programs. It maintains good program documentation. Flowcharts help to visualize what is going on and thereby help to understand a process or problem. Can you make a detailed list of advantages of the flowcharts?
 - A. Refer above answer

Q.No.14. Discuss Limitations of Flowcharting?

(A)

LIMITATIONS OF FLOWCHART:

- 1) **Complex logic:** Flowchart becomes complex and clumsy where the problem logic is complex.
- 2) **Modification:** If modifications to a flowchart are required, it may require complete re-drawing.
- 3) **Reproduction:** Reproduction of flowcharts is often a problem because the symbols used in flowcharts cannot be typed.
- 4) **Link between conditions and actions:** Sometimes it becomes difficult to establish the linkage between various conditions and the actions to be taken.
- 5) **Standardization:** Program flowcharts, although easy to follow, are not such a natural way of expressing procedures as writing in English, nor are they easily translated into Programming language.



Q.No.15. Draw a Flowchart for finding the sum of first 100 odd numbers.

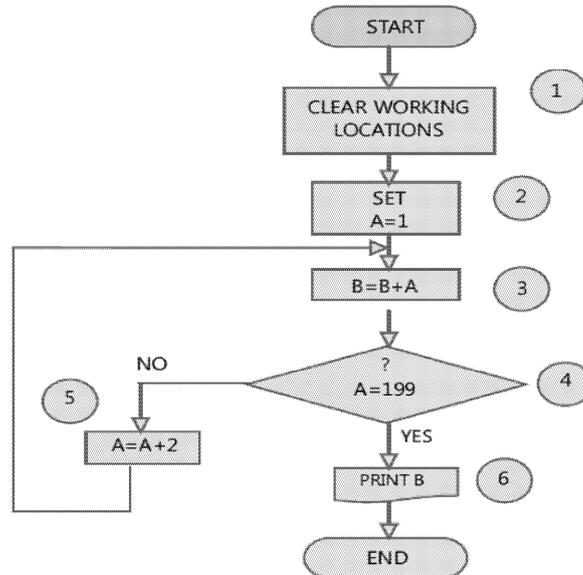
(A)(N-18)

Step 1: All working locations are set at zero. This is necessary because if they are holding some data of the previous program, that data is liable to corrupt the result of the flowchart.

Step 2: A is set at 1 so that subsequently by incrementing it successively by 2, we get the wanted odd terms: 1,3,5,7 etc.

Step 3: A is poured into B i.e., added to B. B being 0 at the moment and A being 1, B becomes 0 + 1 = 1.

Step 4: Step 4 poses a question. "Has A become 199?" if not, go to step 5, we shall increment A by 2. So that although at the moment A is 1, it will be made 3 in step 5, and so on. Then go back to step 3 by forming loop.



Q.No.16. Explain about Data Flow Diagrams (DFDs)? Explain Major components of DFD? Explain the concept of DFD with some example? (A)

Data Flow Diagrams (DFD) show the flow of data or information from one place to another.

DFD basically provides an overview of:

- a) What data a system processes;
- b) What transformations are performed;
- c) What data are stored;
- d) What results are produced and where they flow.

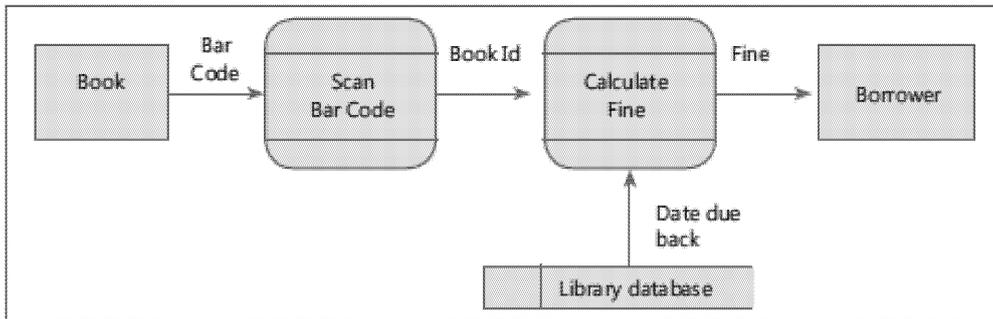
It is mainly used by technical staff for graphically communicating between systems analysts and programmers.

MAJOR COMPONENTS OF DFD:

| | | |
|--|----------------|--|
| | Process | Step-by-step instructions are followed that transform inputs into outputs (a computer or person or both doing the work). |
| | Data flow | Data flowing from place to place, such as an input or output to process. |
| | External agent | The source or destination of data outside the system. |
| | Data store | Data at rest, being stored for later use. Usually corresponds to a data entity on an entity-relationship diagram. |
| | Real-time link | Communication back and forth between an external agent and a process as the process is executing (e.g., credit card verification). |

Example

Given below Fig. is a simple scenario depicting a book borrowed from a library being returned and the fine calculated, due to delay

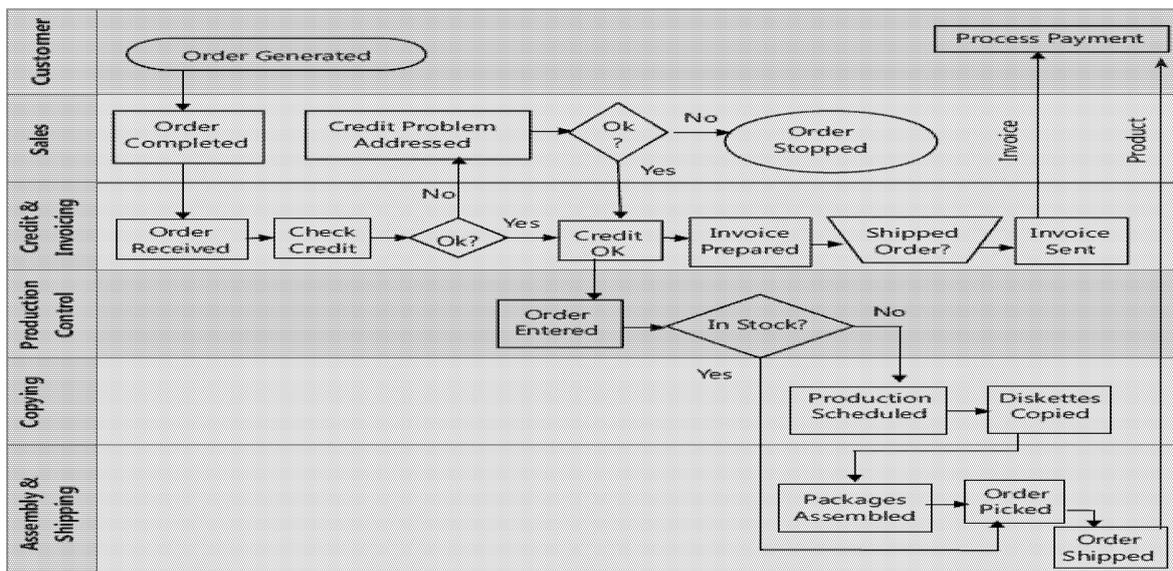


- The book is represented as an external entity and the input is the bar code.
- The process is the scanning of the bar code and giving an output of the Book ID.
- The next process calculates the fine based on accessing the "library database" and establishing the "due back" date.
- Finally, the fine is communicated to the borrower who is also shown as an external entity.

SECTION 2: QUESTIONS FOR ACADEMIC INTEREST – FOR STUDENT SELF STUDY

Q.No.17. Diagrammatic Representation of Specific Business Processes like Customer Order Fulfillment. (C)

- 1) The process starts with the customer placing an order and the sales department creating a sales order.
- 2) The sales order goes through the Credit & Invoicing process to check credit (an activity) is it OK? (a decision gateway).
- 3) If the customer's credit check is not OK, you would move to the step "credit problem addressed" (an activity), followed by a decision "OK?". If "No", the order will be stopped.
- 4) If the customer's "credit check" response is "yes", and if stock is available, an invoice is prepared, goods shipped and an invoice is sent to the customer. If the stock is not available, the order is passed to "production control" for manufacture and then shipped to customer with the invoice
- 5) The process ends with the payment being received from customer.



THE END