

“THE INDEX
OF
INFORMATION
TECHNOLOGY”

INFORMATION TECHNOLOGY

IPCC – GROUP-II

To
Matha, Pitha, Guru, Deivam

“Inspired from the book of Dinesh Madan sir”

HOW TO GET RID OF INFORMATION TECHNOLOGY (IPCC)

Hi friends, the golden rules which I listen from most of the toppers are

1. Reading study material by ICAI.
2. Preparing own notes.
3. Revising it till last minute.

I know reading study material of ICAI is time taking, that too IT study material (nice joke). When your exams are nearby (like 1 or 1^{1/2} month) chances are less to complete the above criteria.

So friends, I would like to help you people in a way by giving this notes; so called

“The Index of IT”.

“This book contains questions and **KEY** answers from all the chapters from beginning to end”

The Idea is so simple, that the reader has to understand the question and remember the given KEYPOINTS as the main part of the answer, which valuator expects from the students.

If you need full clarity on the question and answer, you should Keep ICAI study material with this book and start reading all questions. The flow in this book goes exactly like study material.

In addition, at the end I suggest some questions as star rated based on ICAI past examinations.

MY ADVICE TO READERS ARE

1. Understand the questions exactly.
(Where most of the students WRITE wrong answers to some questions)
2. Recollect all the points in the exam.
(Whether it is 2marks or 4 marks please try to WRITE all the points)
3. WRITE the main key words with your own answers.
(Don't try to give vague answers)

DON'T FORGET

**TO WRITE THE GIVEN KEY WORDS AS YOUR ANSWERS,
OTHERWISE YOU MAY LOSE MARKS.**

ALL THE BEST –

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CHAPTER -1

BUSSINESS PROCESS MANAGEMENT AND IT

Q.1 Explain briefly Business process and Business process Management?

Ans: Business Process: Business activity conducted in a sequence is known as Business process

Business Process management: The business process management includes system of interlinked process and includes efforts to analyze improve and implement the most effective process in the organization.

Q.2 Explain key difference between Function based organization and process based organization?

Ans: We can differentiate based on: [1] Work units-(departments, team) [2] Key figure (function executive, process owner) [3] Strategic values (support cost leadership, support different) [4] Benefits [5] Weaknesses.

Q.3 what are the key steps involved in the process management?

Ans: [1] First task is to *Define it* [2] Establish the *performance measures* [3] Describes the *organizational setup*.

Q.4 Define the BPM in detail and explain key terms involved in the BPM definition?

Ans: BPM may be defined as "The **Achievement** of an **Organizations objectives** through the **improvement, management** and **control** of **essential business process**."

Key terms: [1] Achievements [2] Organization [3] Objectives [4] Improvement [5] Management [6] Control [7] Essential [8] Business process.

Q.5 Explain key BPM principles?

Ans: [1] Process are business assets [2] Value to customers [3] Continues improvement [4] IT is the key Enabler

Q.6 Explain the key BPM practices?

Ans: [1] Process oriented Organization structure [2] Appoint process owner [3] Top down commitment, bottom –up execution [4] Use information technology (IT) to manage process [5] Collaborate with business process [6] Continues learning and process improvement [7] Align employee rewards to process performance [8] Utilize BPR ,TQM, and other process improvement tools.

Q.7 Explain the life cycle of accounting process?

Ans: The following transactions [1] Source documents [2] Journals [3] Ledger [4] Trail balance [5] Adjustments [6] Adjusted Trail balance [7] Closing entries [8] Financial statements.

Q.8 Explain the life cycle of sales process?

Ans: sales process includes [1] Customer order [2] Recording [3] Pick release [4] Shipping [5] Invoice [6] Receipt [7] Reconciliation

Q.9 Explain Life cycle of purchase process?

Ans: Purchase process includes the following activities [1] Purchase requisition [2] Request for quote [3] Quotation [4] Purchase order [5] Receipts [6] Payments



BUSSINESS PROCESS MANAGEMENT AND IT

Q.10 Describe the steps involved in the financial management?

Ans: [1] Financial planning [2] Resource allocation [3] Operation & monitoring [4] Evaluation, analysis and Reporting

Q.11 Explain classification of business process and levels of classification?

Ans: Level of classification can be described as Organizational business and Operational business process. However business process can be categorized in to different levels: 1 – Business level, 2 – Goals, 3 – Organizational business process, 4 – Operational business process, 5 – Implemented business process.

Q.12 An organization has decided to implement the BPM, What are key factors you will recommend to consider while implementing BPM?

Ans: Factors to be considered: - [1] Scope [2] Goals [3] Methods to be used [4] Skills required [5] Tools to be used [6] Investments to make [7] Sponsorship / Buy in needed.

Q.13 Explain the need for implementing BPM?

Ans: [1] Creating long-term possibilities [2] Creating short-term cost effectiveness [3] Initiate continues improvement culture [4] Re-engineer the business process significantly [5] Introduce leadership qualities [6] Addresses cultural issues.

Q.14 what is the key outcome of the BPM?

Ans: Automation of Functional units.

Q.15 what are the key challenges in implementing business process Automation (BPA)?

Ans: Customers are becoming demanding thus key challenges are [1] Requiring increasing number of interfaces [2] Complexities due to increasing number of products and pricing options [3] Use (or) Integration of legacy applications [4] Budgets are being cut.

Q.16 Write about BPM technology?

Ans: Use of it tools and information system for automating business process is BPM technology. In general BPM= business process+ People + Information technology .It makes organization more competitive.

Q.17 what does a value chain represent and write value chain automation?

Ans: Value chain refers to separate activities which are linked together both inside and outside the organization.

The key value chain activities are [1] research and development [2] Design of products [3] production [4] marketing & sales [5] Distribution [6] customer service.

Q.18 what are the key benefits and risk of business process automation (BPA)?

Ans: Benefits: - [1] Saving in cost [2] Staying ahead in the competition [3] Fast service to customer.

Risks: - [1] Risks to jobs [2] False sense of improvements [3] Technology risks.

Q.19 Explain the process cycle of accounting BPM?

Ans: [1] Financing cycle [2] Expenditure cycle [3] Production cycle [4] Revenue cycle [5] Human resources cycle [6] General ledger and reporting system [7] Data processing cycle.



BUSSINESS PROCESS MANAGEMENT AND IT

Q.20 Describe the business risks from failure of IT?

Ans: [1] Software fails to meets business needs [2] Technology obsolescence [3] System is over-Engineered [4] Limited options for Customization of BPM software [5] Breakdown in gap analysis [6] Poor project management.

Q.21 Define BPR and describe its key terms?

Ans: BPR is fundamental rethinking and radical redesign (reinvention) of business process to achieve dramatic improvements in business process in terms of cost, quality, service and speed. Key terms: - [1] Dramatic achievements [2] Radical redesign [3] Fundamental rethinking.

Q.22 Define BPR success factors?

Ans: [1] Organization wide commitment [2] BPR team composition [3] Business need analysis [4] Adequate IT infrastructure [5] Effective change management [6] Ongoing continuous improvement.

Q.23 Describe different approaches for the mapping system.

Ans: [1] Entity relationship diagrams [2] Data flows diagram [3] System flow diagram [4] System outline charts [5] Decision trees [6] Decision tables.

Q.24 Describe the components of ER – Diagram?

Ans: [1] Box – Represent as “Entities” [2] Diamonds – Represents as “Relationships” [3] Ovals – Represents as “Attributes” [4] Ovals Shapes with underlines.

Q.25 Define Different types of relationship between entities?

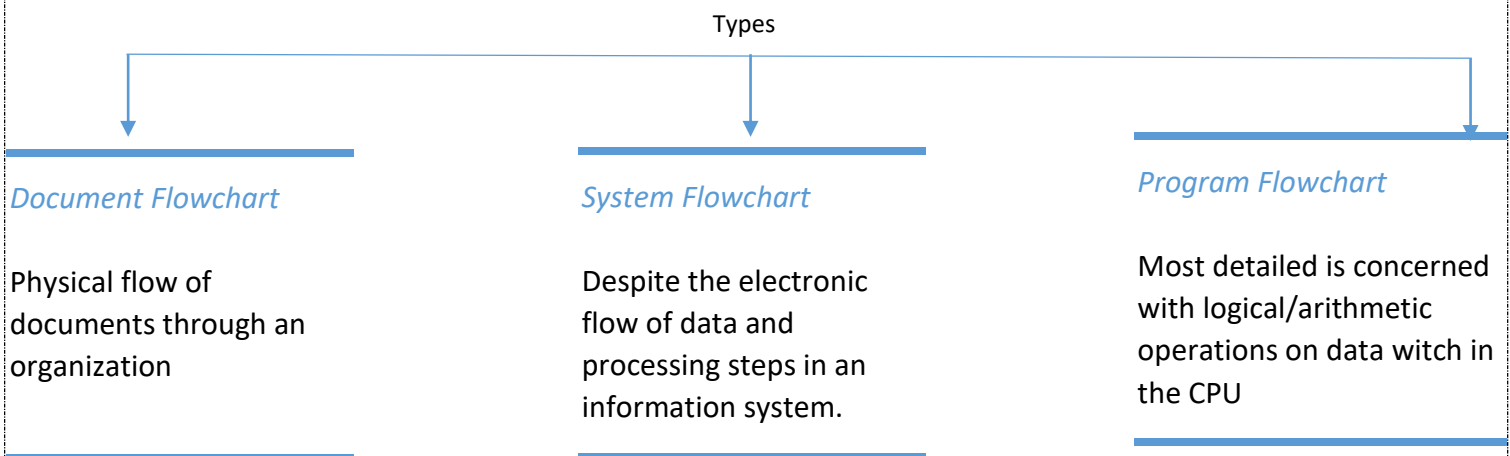
Ans: [1] One-to-one relationship [2] one-to-many relationship [3] Many-to-One relationship [4] Many-to-Many relationship

Q.26 Explain DFD and its components?

Ans Dataflow Diagram is a graphical representation of the flow of data through an information systems. Components are [1] Entity (Square) [2] Process (circle) [3] Data flow (arrow) [4] Data files (parallel lines).

Q.27 Define flow chart and its system outline charts.

Ans: A flow chart is a type of diagram that represents an algorithm, workflow (or) Process, showing the steps as boxes of various kinds and their order by connecting them with arrows.



BUSSINESS PROCESS MANAGEMENT AND IT

Q.28 Explain Decision table and its components?

Ans: A decision table is a table which may accompany a flowchart, defining the possible contingencies that may be considered within the program and the appropriate course of action for each contingency. Components are [1] condition statement [2] condition entries [3] action statements [4] action entries [5] rules [6] header [7] rules identifier [8] condition identifiers [9] action identifiers.

Q.29 Advantages and disadvantages of Decision table (DT)?

Ans: Advantages:- [1] Easy to draw [2] Compact documentation [3] Simplicity [4] Direct codification [5] Better analysis [6] Modularity [7] Non-technical .

Disadvantage:- [1] All programs are not familiar with DT [2]Flowchart can be simple when compare to DT [3] Not express the total sequence.

Q.30 what is decision tree and its advantages?

Ans: Decision tree: - Also termed as an inference (or) logical tree is a collection of a basis (conditions) and a conclusion (action).Advantages :- [1] Simple to understand and brief explanation [2] Possible scenarios can be added [3] Worst ,best and expected values can be determined.

Q.31 Difference between Flowchart (FC) and Data flow diagram (DFD)?

Ans: [1](FC Presents steps to complete a process ,DFD presents the flow of data) [2] (No input or output ,DFD descried the path from an external source) [3] (FC shows how to make a system function, DFD define the functionality of a system) [4] (FC used in designing a process, DFD describe the path of data that will complete the process) [5] (FC types –system and data ,DFD types – physical data flow and logical data flow)

Q.32 Advantages and disadvantages of flowchart?

Ans: Advantages: - [1] Quicker grasp of relationships [2] Effective analysis [3] Communication [4] Documentation [5] efficient coding [6] Orderly check problems [7] Efficient program maintains.

Disadvantages: - [1] Complex logic [2] Modification [3] Reproduction [4] Link between conditions and actions [5] Standardization.

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CHAPTER -2

INFORMATION SYSTEM AND IT FUNAMENTALS

Q.1 Explain the three key IT uses?

Ans: [1] Communication capabilities [2] Data and information management [3] Automated process.

Q.2 Write short notes on the Communication capabilities?

Ans: Communication capabilities enables enterprises to integrate their business functions and segments spread across different geographical areas. (Ex. VOIP, WhatsApp messenger etc.)

Q.3 Explain Importance of IT in auditing?

Ans: [1] IT helps to perform auditing tasks efficiently [2] Provide use of CAAT for efficient and effective audit [3] Change in method of conducting audit with less human efforts.

Q.4 Difference between auditing in IT and manual environment?

Ans: [1] Verification of electronic evidences (vs) Physical evidences [2] Different scope and objectives of audits [3] Need knowledge of IT terminologies from auditor [4] Use of software and CAAT for audit.

Q.5 Define IT audit objectives

Ans: [1] Existence [2] Authorization [3] Valuation [4] Cutoff [5] Compliance [6] Operational.

Q.6 Explain key control procedures from IT related resources?

Ans: [1] Study technical aspects [2] Use unique techniques [3] Audit software usage

Q.7 what are the reasons of increase in IT related risk?

Ans: "Higher the technology, greater is the need for controls " components of IT related risk [1] Business risk [2] Technologic risk [3] Operational risk [4] Other risk .

Q.8 Describe the major areas due to controls in the computer based systems are affected?

Ans: [1] Data entry and sources of data [2] Data storage and document storage [3] Single point responsibility [4] Integrated functions.

Q.9 Describe the key auditors concerns for IT system audits?

Ans: [1] Develop and apply new criteria in evaluating control weakness in computerized information systems(CIS) [2]Tailor testing techniques to the CIS under study; and [3] Use computer to perform some portions of audit examinations.

Q.10 Describe the key steps involved in BPA

Ans: [1] Define why we plan to implement BPA? [2]Understand the rules/regulation under which it need to comply with [3] Document the process we wish to automate [4] Define the objectives/goals to be achieved by implementing BPA. [5] Engage the business process consultant [6] calculate the ROI for Project [7] Develop BPA [8] Testing the BPA.



Q.11 Describe the common automated IT processes?

Ans: [1] Database access and changes [2] File replication and data backup [3] System event log monitoring [4] Job scheduling [5] Application integration [6] File transfer [7] Printing.

Q.12 Describe the five sub-discipline of computing field

Ans: [1] Computer science [2] Computer engineering [3] Information system [4] Information technology [5] Software engineering.

Q.13 write short notes on popular type of Servers.

Ans: [1] File server [2] Print server [3] Network server [4] Database server [5] Information technology [5] Software engineering.

Q.14 what is computing architecture. Explain the popular architecture

Ans: Computer architecture can be defined as the science and art of selecting and interconnecting hardware components to create computers that functional, performance and cost goals.

[1] Instruction set architecture-(i) Complex instruction set computerize {Intel Pentium processors} (ii) Reduced instruction set computer RISC {IBM RS6000}

[2] Micro design – computer organization [3] system design

Q.15 Define the Following

Ans: [1] CISE [2] RISC [3] Multi processing [4] Hardware virtualization (or) platform virtualization.

Q.16 Define the Emerging computing models?

Ans: [1] Cloud computing – Use of various services such as software development *platforms, servers, storage* and software over the internet of them referred to as the cloud.

[2] Mobile computing – It is the use of portable computing devices in conjunction with mobile communications technologies to enable users to access the internet and data from anywhere in the world.

Q.17 Explain cloud computing and its models?

Ans: Cloud computing – Use of various services such as software development platforms, servers, storage and software over the internet of them referred to as the cloud. Models: [1] Public cloud [2] Private cloud [3] Hybrid cloud [4] Community cloud.

Q.18 Write about cloud computing architecture?

Ans: [1] Frontend [2] Backend.

Q.19 Define briefly the cloud computing service model.

Ans: [1] SaaS – services as a services [2] PaaS – Platform as a service [3] IaaS – Infrastructure as a service [4] NaaS – Network as a service [5] CaaS – Communication as a service.



Q.20 Describe the Mobile computing?

Ans: It is the use of portable computing devices in conjunction with mobile communications technologies to enable users to access the internet and data on their home or work from anywhere in the world. it involves [1] Mobile communication [2] Mobile hardware [3] Mobile software .

Q.21 List the mobile computing applications and concerns?

Ans: Applications – [1] Increase in workforce productivity [2] Customer service improved [3] Resolve problems faster [4] Enterprises can dynamically modify.

Concerns – [1] Security concerns [2] Danger of misrepresentation [3] Power consumption [4] Potential health hazards.

Q.22 Describe the information system layers?

Ans: [1] User people [2] Hardware [3] Network [4] Application program [5] System software [6] Database.

Q.23 Describe briefly different types of applications software?

Ans: [1] Application suite [2] Enterprise software [3] Enterprise infrastructure software [4] Information worker software (spread sheets) [5] Content access software [6] Education software [7] Media development software.

Q.24 Describe DBMS and database models?

Ans: DBMS are software that aid in organizing, controlling and using the data needed by the application programmer. “Database model is a type of data model that determines the logical structure of a database and fundamentally determines in which manner data can be stored, organized and manipulated “ .

[1] Hierarchical database model [2] Network database model [3] Relational database model [4] Object oriented database model.

Q.25 write DBMS advantages and disadvantages?

Ans: Advantages: - [1] Permitting data shaving [2] Minimizing data redundancy [3] Integrity can be maintained [4] Program and file consistency [5] User-friendly [6] Improved security [7] Achieving program/data independence [8] Faster application development.

Disadvantages: - [1] Cost [2] Security

Q.26 what is system software and write the key functions of OS?

Ans: [1] Performing hardware functions [2] User interfaces [3] Hardware independence [4] Memory management [5] Task management [6] File management [7] Logical access security [8] Network capability.

Q.27 Describe the key hardware devices?

Ans: [1] Input devices [2] Processing devices [3] Output devices [4] Network links

Q.28 Describe briefly related to CPU the following

Ans: [1] Control unit [2] Arithmetic & Logic unit [3] Registers.

Q.29 Explain the key data storage devices?

Ans: [1] Internal memory [2] Primary memory [3] RAM & ROM [4] Cache memory [5] Virtual memory [6] Secondary memory.



INFORMATION SYSTEM AND IT FUNAMENTALS

Q.30 Types of network links?

Ans: [1] Connection oriented network [2] Connection less networks

Q.31 Explain the difference phases of information systems life cycle?

Ans: [1] Investigate phase [2] Analyze phase [3] Design phase [4] Implement phase [5] Maintenance & review.

Q.32 Difference types of feasibilities in the investigation phase?

Ans:[1] Economic feasibility [2] Technical feasibility [3]Operational feasibility [4] Schedule feasibility [5] Legal feasibility

Q.33 Explain key steps in involved in the system analysis phase?

Ans:[1]Interviewing staff [2] Examine current business [3]Sending out questionnaire [4] Observation of current procedure .

Q.34 what are key technical aspects specified for the processed system. (System development)

Ans: [1] Hardware platform [2] Software [3] output [4] Input [5] User interface [6] Modular design [7] Test plan [8] Conversion plan [9] Documentation.

Q.35 what are the key accepts involved in the system implementation phase?

Ans: [1] Coding and testing of the system [2] Acquiring of hardware and software [3] Either installation of the new systems (or) Conversion of the old system to the new one.

Q.36 Define different system conversion methods in system implementation mode.

Ans: [1] Direct changeover [2] Parallel conversion [3] Phased conversion [4] Pilot conversion

Q.37 what does system maintains and review phase include?

Ans: [1] Perfective maintains [2] Adaptive maintains [3] Corrective maintenance

Q.38 Write short notes on the recent technologies and devices?

Ans: [1] Bluetooth – is a wireless technology standard for exchange data over short distance up to 50meters (keyboard, mouse, cell phone, PDA's laptop)

[2] Wi-Fi – is a popular wireless network technology that uses radio waves to provide wireless high speed internet and network connections.(limited range of 32 meters)

[3] Laptop – is a portable computer and small enough that it can sit on lap.(weight less than 3 kg)

[4] Tablet computer – is a one piece of general purpose computer contained in a single panel.(touchscreen , small in size, good battery life, storage , good performance, use Wi-Fi)

[5] Smart phone – is a mobile phone built on a mobile operating system, with more advanced computing capability connectivity than a feature phone. (Android, iOS)

[6] Touchpad – is a pointing device featuring a tactile sensor, a specialized surface that can translate the motion and position of a user's fingers to a relative position on screen.

[7] iPad – is a figure based use and has none of the tiny features which required a stylus on earlier tablets.

[8] iPod – is a line of portable media players designed and marketed by apple Inc.

INFORMATION SYSTEM AND IT FUNAMENTALS

[9] Ultra-mobile – is a small form factor version of a pen computer, a class of laptop whose specifications were launched by Microsoft and Intel.

[10] Android – is a LINUX based operation system designed primarily for touch screen mobile devices such as smart phones and tablet computers.

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CHAPTER -3

TELECOMMUNICATION AND NETWORKS

Q.1 How computers networks helping organizations?

Ans : [1] Collaborate with business associates more creatively [2] Manage their business operations and resources more effectively from anywhere and in integrated manner [3] Compete successfully in today's competitive world through efficient decision making and by reducing costs/wastages .

Q.2 Explain the key trends in telecommunication?

Ans: [1] Telecom industry trends [2] Technology trends [3] Business application trends

Q.3 Describe key business values of telecommunications?

Ans: [1] Overcoming geographic barriers [2] Overcome time barriers [3] Overcome cost barriers [4] Overcome structural barriers.

Q.4 Describe the need and scope of telecommunication networks.

Ans: [1] File sharing [2] Print sharing [3] E-mail [4] Fax sharing [5] Shared database [6] Remote access [7] Internet access [8] Communication and collaboration [9] Fault tolerance.

Q.5 Define telecommunication work models/components?

Ans: [1] Terminal (sender / receiver) [2] Telecommunication processors or devices [3] Telecommunication media /channels [4] Computers [5] Telecommunication control software

Q.6 Define the flowing telecommunication processors / devices?

Ans: [1] MODEM – is a device that converts a digital signal in to an analog telephone signal and vice versa (modem is a contraction of modulate and demodulate).

[2] Multiplexor- it is a communication processor that allows a single communications channel to carry simultaneous data transmission from many terminals.

[3] NIC – Network Interface Card is a computer hardware component that connects a computer to a computer network.

[4] Internetwork processors:

(a) **Repeater**- is a communication processor that boosts or amplifies the signal before passing in to the next section of cable a network

(b) **Bridge** – is a communication processor that's connects numerous LAN's

(c) **Router**- is a communication processor that interconnects networks based on different rules or protocols, so that a telecommunications message can reach its intended destination

(d) **Gateway** – is a communication processor that connects networks that use different communication architectures

(e) **Hub** – is a port-switching communications processor. This allows for the sharing of the network resources such as servers, LAN workstation, and printer.



(f) **Switch** – is a communication processor that makes connections between telecommunications circuits in a network so that a telecommunication message can reach its intended destination.

Q.7 Describe different guided and unguided telecommunication media?

Ans: [1] *Guided media*: Coaxial cable, UTP/STP cable, fiber optic [2] *Unguided media*: Terrestrial microwaves, radio waves, microwave, infrared waves and satellite communication.

Q.8 Explain the key functions of Telecommunication software related to network management?

Ans: [1] Traffic management [2] Security management [3] Network monitoring [4] Capacity planning

Q.9 Explain the types of telecommunication networks?

Ans: [1] Area coverage network [2] Function based network [3] Ownership based network

Q.10 Define the key area based network:

Ans: [1] LAN [2] MAN [3] WAN

Q.11 Explain the various benefits of LAN?

Ans: [1] Distributed data processing [2] Expanded PC use [3] Email and message broadcasting [4] Sharing of data and resource [5] Data management [6] Organizational benefits [7] Lower software cost [8] Security

Q.12 Describe the difference functions based on network?

Ans: [1] Client /Server Network [2] Peer to peer network [3] Multi –tier network

Q.13 Describe the following?

Ans: [1] Client [2] Fat/thick Client [3] Thin Client [4] Hybrid Client [4] server

Q.14 Explain the working of Client / Server network?

Ans: [1] Server are typically powerful computers running advanced network operating system.
[2] End user personal computer are clients
[3] Clients are interconnected by LAN
[4] Client and server can operate on separate computer platforms
[5] The server is able to serve multiple clients [6] Actions are usually initiated at the client end.

Q.15 Explain key characteristics and issues of client /server network?

Ans: [1] Services [2] Shared resources [3] Transparency of location [4] Mix and match [5] Scalability [6] Integrity.

Q.16 Explain peer to peer network and its advantages and disadvantages?

Ans: P2P network is created with two or more PC's connected together and share resources without going through a separate server computer. Prime objectives are "File-sharing network" and "pooling of resources".

ADVANTAGES – [1] Easy and simple to setup [2] Cost effective [3] One computer fails to work, others responds.

DISADVANTAGES – [1] problem in accessing files, if not connected properly. [2] Not support for too many connections [3] data security is poor

Q.17 What is multi –tier Architecture?

Ans: [1] Single tier or one tier [2] Two –tier [3] Three –tier



TELECOMMUNICATION AND NETWORKS

Q.18 explain the ownership based classification

Ans: [1] Public network [2] Private network [3] VPN (virtual private network)

Q.19 what is network computing?

Ans: [1] Centralized computing [2] Decentralized computing [3] Distributed computing

Q.20 Explain Different networks structures or topologies?

Ans: [1] Star network [2] Bus network [3] Ring network [4] Mesh network

Q.21 explain Different transmission technologies

Ans: [1] Serial and parallel communication [2] Synchronous and asynchronous communication [3] Communication modes: Simplex, half duplex and full duplex [4] Transmission techniques: circuit switching, message switching and packet switching.

Q.22 Explain network architecture and protocols?

Ans: NETWORK ARCHITECTURE: - It refers to the layout of the network consisting of the hardware, software, connectivity, communication protocols and mode of transmission, such as wired or wireless.

PROTOCOLS: protocols are software that performs a variety of actions necessary for data transmission between computers. "A set of rules for inter-computer communication". A protocol defines the following aspects [1] Syntax [2] Semantics [3] Timing.

Q.23 what is OSI model and explain its different layers:

Ans: [1] Physical layer [2] Data link layer [3] Network layer [4] Transport layer [5] Session layer [6] Presentation layer [7] Application layer.

Q.24 Explain the difference between TCP/IP and OSI models

Ans: Transmission controls protocol / internet protocol and is known as TCP/IP consists of five levels of protocols that can be related to the seven layers of the OSI architecture.

Q.25 what are the possible threats and vulnerability to computer network?

Ans: Threats: [1] Unstructured threats [2] Structured threats [3] Internal threats [4] External threats.

Vulnerability: [1] Software bur [2] Insufficient testing [3] Inadequate training

Q.26 what are the key controls to overcome the threats?

Ans: [1] Preventive controls [2] Detective controls [3] Corrective controls

Q.27 Explain the key steps for establishing levels of security for different assets?

Ans: [1] Preparing project plan for enforcing security [2] Asset identification [3] Asset valuation [4] Threat identification [5] Threats probability of occurrence assessment [6] Exposure analysis [7] Controls adjustment [8] Report generation outlining the levels of security to be provided for individual system, end user, etc.

Q.28 Explain the network security protocols?

Ans: [1] SSH [2] SFTP [3] HTTPS [4] SSL



TELECOMMUNICATION AND NETWORKS

Q.29 Describe the key network securities techniques?

Ans: [1] Firewall [2] Encryption [3] Message authentication [4] Site blocking [5] IDS (Intrusion detection system)

Q.30 Describe the popular IDS

Ans: [1] Network intrusion detection [2] Host-based detection [3] Hybrid intrusion detection [4] Network node intrusion detection

Q.31 what is network administration and management?

Ans: It is efficient *operation, administration, maintenance and provisioning* of network systems

Q.32 Describe FCAPS?

Ans: FCAPS is a common way of characterizing network management functions – [1] Fault management [2] Configuration management [3] Accounting management [4] Performance management [5] Security management

Q.33 Describe the most common way of connecting to internet?

Ans: [1] DSL connection [2] Cable connection [3] Wireless internet connection [4] T-1 lines

Q.34 Describe the key internet applications:

Ans: [1] Low cost communication [2] Hub of information [3] E-Commerce [4] Social networking [5] Software, Information and data files download.

Q.35 Differentiate between intranet and extranet?

Ans: INTRANET: - An intranet is a company's private network accessible only to the employees of that company. It uses the common standard and protocols of the internet.

EXTRANET: - An extranet is similar to an intranet except that it offers access to selected outsiders, such as buyers to an intranet except, and wholesalers in the supply chain.

Q.36 What is E-commerce and list its key benefits?

Ans: E-commerce – Electronic commerce is the process of doing business electronically. And its related technologies are unquestionably the current leading –edge business and finance delivery systems for the 21st century. Key benefits are:-

- [1] Reduction in cost to buyers from increased competition
- [2] Reduction in error, time, and overhead costs in information process
- [3] Reduction in costs to suppliers by electronically accessing on-line.
- [4] Reducing in time to complete business transactions.
- [5] Creation of new markets
- [6] Easier entry in to new market
- [7] Better quality of goods as specifications
- [8] Optimization of resource selection
- [9] Reduction in inventories
- [10] Reduction in overhead cost
- [11] Reduction in use of ecologically damaging materials
- [12] Reduction in advertising cost.

Q.37 Define the key E-commerce applications

Ans: [1] B2B [2] B2C [3] C2B [4] C2C [5] B2G [6] B2E



TELECOMMUNICATION AND NETWORKS

Q.38 Write short notes on the following: [A] Mobile commerce [B] EFT.

Ans: [A] Mobile commerce: M-commerce is about the exploration of applications and services that are becoming accessible from internet –enabled mobile devices

[B] EFT – *Electronic fund transfer* it represents the way the business can receive direct deposit of all payments from the financial institution to the company bank account. Examples – [1] ATM's (Automated teller machines)

[2] Point of sale (PoS) transactions [3] preauthorized transactions [4] telephone transfers.

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CHAPTER -4

BUSINESS INFORMATION SYSTEM

Q. Define how Information technology act as key business enabler and drive?

Ans: In business, people and organizations seek and use information specifically to make sound decisions and to solve problems. Two closely related practices that form the foundation of every successful company.

Q.2 what is information systems? What are the key components of information system?

Ans: IS is a combination of *people, hardware, software, communication devices, network and data resources that process data and information* for specific purpose. [1] People [2] Hardware [3] Software [4] Data [5] Procedures

Q.3 Define characteristics business process?

Ans: [1]It has a goal [2]It has specific input [3]It has specific output [4] Uses resources [5]It has number of activities [6] creates value for organization.

Q.4 what is business information system? What are the key characteristics required from BIS?

Ans: BIS – defined as system integrating information technology people and business.

Characteristic required: - [1] Have large capacity for storage [2] Provide support for decision making [3] Grant a competitive edge [4] Ensure fast and accurate processing of data [5] Offer faster communication and exchange of information [6] Reduce information redundancy .

Q.5 Describe the key roles of information system in business.

Ans: [1] Cost and waste reductions [2] Increases revenue [3] Effective decision making [4] Right decision at right time [5] Execute innovative ideas [6] Resolve complex and critical problems [7] Implement the formulated strategy.

Q.6 Describe the key information system types:-

Ans: [1] Operational level: transaction processing system. [2] Management level: Management information system and decision support system [3] Strategy level: Executive support system [4] Knowledge level: Knowledge management system, OAS.

Q.7 who uses information system?

Ans: [1] Operational level: operational managers, supervisors [2] Management level: manager, general manager and regional manager [3] Strategic level: CEO, CFO, and COO [4] Knowledge level: Knowledge and data workers.

Q.8 what is TPS? What are the key attributes of TPS?

Ans: [1] Access control [2] Equivalence [3] High volume [4] Rapid processing [5] Trustworthiness.

Q.9 Explain transaction processing qualifiers?

Ans: TPS should pass ACID test. ACID stands for A-Atomicity, C-Consistency, I-Isolation, D-Durability.

Q.10 Describe the Office Automation System (OAS) and Define its building blocks?

Ans: [1] Text and document management system e.g.: MS-Word. [2] Database management systems e.g. MS-Access [3] Data analysis system e.g.: MS Excel. [4] Electronic data communication e.g.:Email and outlook [5] network technologies e.g.: LAN and VAN [6] Software application.



BUSINESS INFORMATION SYSTEM

Q.11 What is knowledge management system (KMS) and explain explicit and tacit knowledge.

Ans: KMS refers to any kind of IT system that stores and retrieves knowledge, improves collaboration, locates knowledge sources, mines repositories for hidden knowledge, captures and uses knowledge or in some other way enhance the KM process.

Explicit Knowledge: - spoken words, written material and compiled data.

Tacit knowledge: - hands on skills, special knowledge, and employee experiences.

Q.12 Differentiate between Knowledge and information?

Ans:-

INFORMATION	KNOWLEDGE
Piecemeal , fragmented	Structured , coherent
Timely, perhaps even short lived	Is enduring significance
Flow of messages	Knowledge is stock , result from flow
Acquired by being told	Acquired by thinking

Q.13 Explain the importance of knowledge management system (KMS)?

Ans: “knowledge” itself in an organizational context. This knowledge has often been confused with information and sometimes with wisdom because of the somewhat blurred boundaries that exist between the three. It is important to understand that information is nothing but the outcome of the processing of large amount of data that are created during the regular operations of any organization

Q.14 List the key resources that knowledge has gained important momentum (or) importance in organization?

Ans: [1] Altering business surrounding [2] Burgeon connections [3] Globalization [4] Modification in organizational composition.

Q.15 Explain the MIS in Its three characteristics?

Ans: [1] Management [2] Information [3] System.

Q. 16 Define the steps used for the development of MIS?

Ans: [1] Groundwork examination [2] Requirement psychoanalysis [3] System blueprint [4] Acquisition and procurement

Q.17 what are the key Do's and Don'ts for MIS?

Ans: [1] Layman [2] Bridging [3] Contribution in Totality [4] Tailor made [5] Interpretation [6] Synchronization [7] Application

Q.18 what is DSS and what are the key components of DSS.

Ans: DSS is a computer based information system that supports business or organizational decision. Making activities. Components: - [a] The user [b] Database [c] Model base

Q.19 what are the four phases of decision making?

Ans: [1] Intelligence [2] Design [3] Choice [4] Implementation

Q.20 what is EIS and what are its key components.

Ans: An EIS is the nature of IS used by executives to access and administer the data they entail to make informed business decision. [1] Hardware [2] Software [3] User interface [4] Telecommunication .

Q.21 Write short notes on specialized information systems?

Ans: [1] ERP [2] CRM [3] SCM [4] HRMS [5] CORE banking system [6] Accounting information system.

Enterprise resource planning (ERP):- System integrate internal and external management information across an entire organization. Talking on finance /accounting, manufacturing, sales and service, CRM etc.

Customer relationship management (CRM):- CRM may be defined as business process in which Client relationship, customer loyalty and brand value are built through marketing strategies and activities.

Supply chain management (SCM):- SCM may be defined as the process of planning, implementing and controlling the operations of the supply chain with the purpose of satisfying the customers requirement as efficiently as possible.

Human resource management system (HRMS):- HRMS is a software application that coalesce many human resources functions, together with benefits administration, payroll, recruiting and training, and performance analysis and assessment in to one parcel. (HRMS refers to the system and process at the intersection between HRM and IT)

CORE banking system:- CORE stands for “centralized online real-time environment “

Accounting information system:- is defined as a system of collection, storage and processing of financial and accounting data that is used by decision makers.

Q.22 Define ERP states for a manufacturing organization?

Ans: [1] Inventory control [2] ABC analyst [3] EOQ (Economic order quantity) [4] JIT (just-in-time) [5] MRP-I (Material requisition planning) [6] MRP-II (manufacturing resources planning-II) [7] DRP (Distribution resources planning) [8] Enterprises resources planning [9] Money resource planning (MRP- III) [10] EIS –web enabled.

Q.23 List out the key benefits of CRM?

Ans: [1] Taken action [2] Analyze [3] Discover

Q.24 Describe the key components of SCM?

Ans: [1] Procurement /purchasing [2] Operations [3] Distributions [4] Integration.

Q.25 Describe relationship between ERP, CRM and SCM?

Ans: SCM → Suppliers, ERP → the organization, CRM → Customers.

Q.26 Describe the key modules of Human resource management system (HRMS)?

Ans: [1] Workforce management [2] Time and attendance management [3] Payroll management [4] Training management [5] Compensation management [6] Recruitment management [7] Personal management [8] Organizational management [9] Employee self-service [10] Analytics .



Q.27 List out elements of CORE banking?

Ans:[1] Opening new account [2] Processing cash deposits and withdrawals [3] Processing payment and cheques [4] Calculating interest [5] Customer relationship management (CRM) [6] Managing customer records [7] Establishing criteria for minimum balances , Interest rates, number of withdrawals allowed and so on [8] Establishing interest rates [9] Maintaining records for all the banks transactions .

Q.28 Write short note on popular CORE banking applications?

Ans: [1] Infosys Finacle [2] Nucleous Finnone [3] Oracle's Flexible

Q.29 Describe the key components of accounting information system?

Ans: [1] People [2] Procedures and instructions [3] Data [4] Software [5] Information technology [6] Internal control.

Q.30 List the sub-system of accounting information system?

Ans : [1] Budgeting and planning [2] Activity based costing and management [3] Electronic banking [4] Accounting software [5] Expense management [6] Budgeting software [7] Bank reconciliation [8] Cash and treasury management [9] Revenue management .

Q.31 Write a short note on artificial intelligence?

Ans: AI is the vicinity of computer science focusing on creating machines that can fit in to place on behaviors that humans regards as intelligent. [1] Decision support [2] Information retrieval [3] Virtual reality [4] Robotics.

Q.32 Describe the expert system and its components?

Ans: Expert system is a computerized information system that allows non-experts to make decisions comparable to those of an expert. Components [1] Knowledge base [2] Inference engine [3] User interface [4] Explanation facility [5] Databased of facts.

Q.33 Write about business intelligence and it tools.

Ans: [1] Simple reporting [2] Business analytics [3] Dashboards [4] Score cards [5] Data mining [6] Statistical analysis.

Q.34 what is access a control and its key functions.

Ans: [1] Identity management [2] Authentication [3] Authorization [4] Accountability

Q.35 what are key approaches to access controls?

Ans: [1] Authorization [2] Batching [3] Clearing [4] Funding.

Q.36 Write short notes on [1] Electronic cheque [2] Smart cards [3] Electronic purses.

Ans: **Electronic Cheque:** This new cheque is initiated electronically, and uses digital signature for signing and endorsing.

Types - (1) FSTC – Financial service technology corporation → Uses digital signature for signing (2) Cyber cash → Send message to banker for transfer of funds.

Smart cards: - Embedded microchip of magnetic strip (1) contact cards, (2) contactless cards (3) combo /Hybrid cards.



Electronic purses: -it is similar to pre-paid cards → Validation through PIN (personal identification number)

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CHAPTER - 5

BUSINESS PROCESS AUTOMATION THROUGH APPLICATION SOFTWARE

Q1. Describe the business application and classification of business application?

Ans: Classification criteria: [1] Nature of processing [2] Source of application [3] Nature of business [4] Function covered.

Q2. Describe the different types of business application based on the nature of application?

Ans: [1] Accounting application [2] Office management software [3] Compliance applications [4] Customer relationship management software [5] Management support software [6] ERP [7] Product life cycle management software [8] Logistics management software [9] Legal management software [10] Industry specific application.

Q.3 what is BPA and what are the key objectives of BPA?

Ans: Objectives: [1] Confidentiality [2] Integrity [3] Availability [4] Timeliness

Q.4 How to go about BPA or define the phases/steps of BPA?

Ans: [1] Why we want to implement BPA [2] Understand the rules to which process need to comply [3] Document the process we want to automate [4] Define objectives of BPA [5] Engage business process consultant [6] Calculate ROI of project [7] Develop BPA [8] Testing the BPA .

Q.5 write short notes on applications which help to achieve BPA?

Ans: [1] Tally [2] SAP [3] MS-office application [4] Attendance system [5] Vehicle tracking system [6] Automated toll collection system [7] Department stores system [8] Travel management system [9] Education institute management system [10] File management system .

Q.6 what are the key information and product delivery channels?

Ans: Information Delivery channels: [1] Intranet [2] Notice board [3] Internal newsletters [4] Staff meetings [6] Social networking site [7] Hand held devices [8] Manuals.

Product delivery channels: [1] Buying online [2] Buying from a retail shop [3] Departmental store [4] Direct sales [5] Traditional store.

Q.7 How to choose information Delivery channel?

Ans: [1] More than intranet [2] Understand staff needs & environment [3] Traditional channel needs to be formalized.

Q.8 Describe the key controls objectifies for BPA?

Ans: [1] Error handling [2] Authorization [3] Validity [4] Completeness [5] Accuracy [6] Physical safeguards.

Q.9 Describe the types of controls

Ans: [1] Application controls [2] Internal controls



BUSINESS PROCESS AUTOMATION THROUGH APPLICATION SOFTWARE

Q.10 Write about categorization of internal controls

Ans: [1] Preventive controls [2] Detective controls [3] Corrective controls

Q.11 Describe the application controls and their types?

Ans: Classification of application controls – [1] Boundary controls [2] Input controls [3] Process controls [4] Output controls [5] Database controls.

Q.12 Describe the Boundary controls

Ans: [1] Cryptography [2] PIN [3] Plastic cards [4] Access controls [5] Digital signature.

Q.13 Describe the input controls?

Ans: [1] Source documents controls [2] Data coding controls [3] Batch controls [4] Validation controls.

Q.14 Write short note on Validation controls?

Ans: These validate the accuracy/correctness of input data. Input validation controls are intended to detect errors in transaction data before the data are processed.

Q.15 Explain processing controls?

Ans: [1] Run to run controls [2] Reasonable verification [3] Edit checks [4] Field Initialization [5] Exception report or message

Q.16 Describe the output controls?

Ans: [1] Maintaining log [2] Spooling [3] Controls over printing [4] Security of sensitive records [5] Retention control [6] Existence.

Q.17 Write short note on database controls

Ans: The database subsystem is responsible for defining, creating, modifying, deleting, and reading data in an information system. Database controls protect the integrity of a database. Database controls: - [1] sequence check transaction and master files [2] ensure all records on files are processed [3] process multiple transactions for a single record in the correct order.

Q.18 Describe the key emerging technologies

Ans: [1] Network virtualization [2] Grid computing [3] Cloud computing

Q.19 Explain the key characteristics of cloud computing?

Ans : [1] Maintenance [2] High scalability [3] Agility [4] Virtualization [5] High availability and reliability [6] Pay per use mode [7] Multi – sharing [8] Performance

Q.20 Describe the key cloud service models?

Ans: [1] SaaS [2] PaaS [3] IaaS

Q.21 List the key advantages and disadvantages of cloud computing?

Ans: Advantages: - [1] Cost efficient [2] Almost unlimited storage [3] Backup and recovery [4] Automatic software integration [5] Easy access to information [6] Quick deployment.

Disadvantages: - [1] Technical Issues [2] Security in the cloud [3] Prone to attack.

BUSINESS PROCESS AUTOMATION THROUGH APPLICATION SOFTWARE

Q.22 Describe Communicator controls?

Ans: [1] Physical component controls [2] Line error controls [3] Flow controls [4] Link controls [5] Topological controls [6] Channel access controls (Polling methods, contention methods) [7] Internetworking controls.

Q.23 Explain benefits of grid computing?

Ans: [1] Making use of underutilized resources [2] Resources balancing [3] Parallel CPU capacity [4] Virtual resource and virtual organizations for collaboration [5] Access to additional resources [6] Reliability [7] Management.

Q.24 Explain key resources of grid computing?

Ans: [1] Computation [2] Storage [3] Communications [4] Software and licenses [5] Special equipment, capacities, architectures and policies.

Q.25 Explain key steps in using a grid (*user's perspective*)?

Ans: [1] Enrolling and installing grid software [2] Logging on to the grid [3] Queries and submitting jobs [4] Data configuration [5] Monitoring process and recovery [6] Reserving resource.

Using grid (Administrative perspective) – [1] Planning (security , organization) [2] Installation [3] Management enrollment of donors and users [4] Certificate authority [5] Resource management [6] Data sharing [7] Resource management [8] Data sharing.

Q.26 Explain grid computing security?

Ans: [1] Single sign on [2] Protection of credentials [3] Interoperability with local security solutions [4] Exportability [5] Support for secure group communication [6] Support for multiple implementations.

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