

Question Paper

Information Technology & Systems - II (MB232): July 2008

- Answer all 100 questions.
- Each question carries one mark.

1. Match the following:

[<Answer>](#)

i. Wireless Application Protocol	p. Allows sending text messages to mobile phones
ii. Short Messaging Service	q. Mobile telephone protocol
iii. Global System for Mobile	r. Allows mobiles to connect to the Internet

- (a) i/p, ii/r, iii/q
- (b) i/q, ii/p, iii/r
- (c) i/r, ii/p, iii/q
- (d) i/q, ii/r, iii/p
- (e) i/p, ii/q, iii/r.

2. Based on the scale or size/area of networking, networks are classified into different types. Which of the following gives the **correct** increasing order of different types of networks?

[<Answer>](#)

- (a) LAN<WAN<MAN
- (b) LAN>MAN>WAN
- (c) LAN<MAN<WAN
- (d) LAN>WAN>MAN
- (e) WAN>LAN>MAN.

3. _____ is the ability to increase system performance as the workload increases.

[<Answer>](#)

- (a) Broadcasting
- (b) Scalability
- (c) Reliability
- (d) Resource sharing
- (e) Portability.

4. Which of the following statements is/are **true** about Mesh topology?

[<Answer>](#)

- I. A mesh topology is a robust one.
- II. In mesh topology, when a particular link becomes useless, it will affect the entire system.
- III. Mesh topology is popularly used because it requires less amount of cabling.

- (a) Only (I) above
- (b) Only (III) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) All (I), (II) and (III) above.

5. Which of the following statements is/are **true** about Bus topology?

[<Answer>](#)

- I. A bus topology has a multipoint configuration.
- II. Adding new devices is easy in a bus topology.
- III. Any puncture or break in the bus will not stop the transmission.

- (a) Only (I) above
- (b) Only (III) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) All (I), (II) and (III) above.

6. Which of the following statements is/are **false** about Ring topology?

[<Answer>](#)

- I. Direction of the traffic in ring topology is bi-directional.
- II. Any small rupture in the ring would disable the whole network.
- III. In ring topology, if there are n devices, the number of point-to-point links are (n - 1).

- (a) Only (I) above
- (b) Only (III) above
- (c) Both (I) and (II) above

- (d) Both (I) and (III) above
(e) Both (II) and (III) above. [<Answer>](#)
7. Which of the following statements is/are **true** about Bridge? [<Answer>](#)
- I. A bridge is used only to increase the length of the network.
II. When compared to repeaters bridges are very fast.
III. Bridges are costlier than repeaters.
- (a) Only (I) above
(b) Only (III) above
(c) Both (I) and (II) above
(d) Both (I) and (III) above
(e) All (I), (II) and (III) above.
8. The OSI reference model has seven layers. The controls in this model are passed from one layer to the next through all the seven layers. The purpose of OSI model is to establish communication between different devices. Which of the following statements is/are **true** about Session layer? [<Answer>](#)
- I. The session layer provides the means for establishing, maintaining, and terminating a dialogue between the two end users.
II. The session layer ensures the complete transfer of data, error recovery, and flow control between the systems.
III. The session layer regulates the direction of message flow.
- (a) Only (I) above
(b) Only (II) above
(c) Both (I) and (II) above
(d) Both (I) and (III) above
(e) All (I), (II) and (III) above.
9. The OSI reference model has seven layers. The controls in this model are passed from one layer to the next through all the seven layers. The purpose of OSI model is to establish communication between different devices. Which of the following statements is/are **true** about Network layer? [<Answer>](#)
- I. Network layer sets up a logical path between the source and the destination computers in the network, known as the virtual circuit, for sending out data from one node to another.
II. Network layer ensures successful delivery of a packet to the destination.
III. Network layer splits data packets into frames which are transmitted sequentially by the sender.
- (a) Only (I) above
(b) Only (III) above
(c) Both (I) and (II) above
(d) Both (I) and (III) above
(e) All (I), (II) and (III) above.
10. In TCP/IP reference model, which layer is responsible for holding the whole architecture together? [<Answer>](#)
- (a) Application layer
(b) Transport layer
(c) Internet layer
(d) Network interface layer
(e) Session layer.
11. PSTN was the first telecom network used analog technology. PSTN is an acronym for [<Answer>](#)
- (a) Program Switched Telephone Network
(b) Process Switched Telephone Network
(c) Packet Switched Telephone Network
(d) Point Switched Telephone Network
(e) Public Switched Telephone Network.
12. Which of the following is a guided media that is more flexible and easy to install? [<Answer>](#)
- (a) Twisted-pair wires
(b) Optical cables
(c) Coaxial cables
(d) Communication satellites
(e) Cellular phone systems.

13. The various media over which data is transmitted and received in a telecommunications network are called [telecommunication media](#). Which of the following telecommunication media is mostly used for local area networks and in bus networks?

- (a) Open wires
- (b) Twisted-pair wires
- (c) Terrestrial microwaves
- (d) Coaxial cables
- (e) Optical cables.

14. Which of the following statements is/are **true** regarding converged networks? [Answer](#)

- I. Converged networks enable the centralized management of the network.
- II. Converged networks will use multiple communication network infrastructures.
- III. Converged networks make use of a variety of wired and wireless devices.

- (a) Only (I) above
- (b) Only (II) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) All (I), (II) and (III) above.

15. Which of the following statements is/are **true** about communication satellites? [Answer](#)

- I. Communication satellites are special applications of microwaves.
- II. Communication satellites are mainly used for voice and video transmission where high-speed transmission of large volumes of data is required.
- III. The advantage with using satellites as a telecommunication medium is the low cost involved in manufacturing and installing them.

- (a) Only (I) above
- (b) Only (II) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) All (I), (II) and (III) above.

16. Which of the following statements is/are **true** about Terrestrial microwaves? [Answer](#)

- I. Terrestrial microwaves are similar to radio waves or light and can cover long distances.
- II. Terrestrial microwaves medium can be widely used in locations where cabling is very expensive.
- III. For Terrestrial microwaves media, microwave antennas are not required to be placed in line of sight.

- (a) Only (I) above
- (b) Both (I) and (II) above
- (c) Both (I) and (III) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above.

17. Which of the following technologies is/are used in wireless LANs? [Answer](#)

- I. Infrared.
- II. Spread spectrum.
- III. Ultra violet LAN.

- (a) Only (I) above
- (b) Both (I) and (II) above
- (c) Both (I) and (III) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above.

18. Which of the following devices are used to connect two dissimilar telecommunication networks? [Answer](#)

- I. Switches.
- II. Repeaters.
- III. Routers.
- IV. Hubs.

- (a) Both (I) and (III) above
- (b) Both (III) and (IV) above
- (c) (I), (II) and (III) above

- (d) (I), (III) and (IV) above
(e) All (I), (II), (III) and (IV) above. [<Answer>](#)
19. VSAT is a [<Answer>](#)
- (a) Guided media
(b) Network security device
(c) Personal digital assistant
(d) Two way satellite ground station with dish antenna
(e) Switching technique.
20. Which of the following refers to a city or a location where one network can be connected to another? [<Answer>](#)
- (a) Broadcast network
(b) Converged network
(c) Point of presence
(d) Backbone
(e) Network traffic.
21. Which of the following statements is/are **true** about Management Information System (MIS)? [<Answer>](#)
- I. Planning of the MIS helps in choosing a better design as well as in the smooth implementation of the system in the organization.
II. It is imperative to visualize the MIS as a technology that improves the operating efficiency of the organization rather than a strategic tool that can maximize organizational effectiveness.
III. A well-planned MIS takes care of only the organization's current informational needs.
- (a) Only (I) above
(b) Only (III) above
(c) Both (I) and (II) above
(d) Both (I) and (III) above
(e) All (I), (II) and (III) above.
22. The MIS strategy set includes system objectives, system constraints and system design strategies. The basic purpose of MIS implementation is defined by the [<Answer>](#)
- I. System design.
II. System objectives.
III. System constraints.
- (a) Only (II) above
(b) Only (III) above
(c) Both (I) and (II) above
(d) Both (II) and (III) above
(e) All (I), (II) and (III) above.
23. Which of the following statements is/are **true** regarding the designing component of the MIS planning process? [<Answer>](#)
- I. The Designing process attempts to configure the required systems and subsystems, equipment required, software requirements, etc.
II. Designing has to take into account only the current informational requirements.
III. The Designing process considers all possible constraints that can hinder the information flow across the departments.
- (a) Only (I) above
(b) Only (II) above
(c) Both (I) and (III) above
(d) Both (II) and (III) above
(e) All (I), (II) and (III) above.
24. Which of the following statements is/are **true** about MIS design process? [<Answer>](#)
- I. The flow of information between departments and personnel is decided at the MIS design stage.
II. MIS design involves understanding the organization's mission, objectives and strategies.
III. MIS design specifies which resources are to be allocated to which department and/or personnel.
- (a) Only (III) above
(b) Both (I) and (II) above
(c) Both (I) and (III) above
(d) Both (II) and (III) above
(e) All (I), (II) and (III) above.

25. Schonberger proposed a continuum of design approaches that varied from negligible user involvement to very high user involvement. In the initial stages of MIS implementation, the design part is dominated by the [<Answer>](#)
- (a) Information Analyst
 - (b) Team of users and Managers
 - (c) Executive Team
 - (d) System Analyst
 - (e) Stakeholder Groups.
26. William King and David Cleland have proposed an MIS design process called the information analysis model. This model consists of eight steps. Which of the following sequences is **correct**? [<Answer>](#)
- (a) Specification of information requirements, Identification of user set and interfacing organizations, Identification of decision areas, Definition of decision areas, Decision model identification and specification, Development of a descriptive model of the system, Development of a normative model of the system, Development of a consensus model of the system
 - (b) Identification of user set and interfacing organizations, Identification of decision areas, Definition of decision areas, Decision model identification and specification, Development of a descriptive model of the system, Development of a normative model of the system, Development of a consensus model of the system, Specification of information requirements
 - (c) Identification of user set and interfacing organizations, Specification of information requirements, Identification of decision areas, Definition of decision areas, Decision model identification and specification, Development of a descriptive model of the system, Development of a normative model of the system, Development of a consensus model of the system
 - (d) Identification of user set and interfacing organizations, Identification of decision areas, Definition of decision areas, Development of a descriptive model of the system, Development of a normative model of the system, Development of a consensus model of the system, Decision model identification and specification, Specification of information requirements
 - (e) Identification of user set and interfacing organizations, Identification of decision areas, Definition of decision areas, Development of a normative model of the system, Development of a descriptive model of the system, Development of a consensus model of the system, Decision model identification and specification, Specification of information requirements.
27. There are various types of outsourcing relationships identified between the buyer and the outsourcing vendor. Which of the following outsourcing relationships will very few organizations go for? [<Answer>](#)
- (a) Basic outsourcing relationship
 - (b) Preferred outsourcing relationship
 - (c) Layoff outsourcing relationship
 - (d) Strategic outsourcing relationship
 - (e) Non-strategic outsourcing relationship.
28. Which of the following statements is/are **false** regarding different documents present in the IS procurement process? [<Answer>](#)
- I. Request for Proposal (RFP) is used in situations where the specifications of the product or the service are already known and where there is no need for discussing such details with the vendors.
 - II. Request for Quotation (RFQ) is used for finding out the potential products or services available in the market that can meet the needs of the organization.
 - III. Request for Information (RFI) does not invite a seller to participate in the bid and does not involve any obligations on the part of either the buyers or the sellers.
- (a) Only (I) above
 - (b) Both (I) and (II) above
 - (c) Both (I) and (III) above
 - (d) Both (II) and (III) above
 - (e) All (I), (II) and (III) above.
29. Any manager can use the systems approach irrespective of the type of problem. It provides a universal methodology with an inherent logic to solve any kind of problem through a series of steps. Herbert Simon proposed a model, which is similar to systems approach to problem solving and consists of four steps. Intelligence in this model is similar to [<Answer>](#)
- (a) 'Identify alternate solution' step in systems approach to problem solving
 - (b) 'Evaluating the alternative solutions' step in systems approach to problem solving
 - (c) 'Implement the solution' step in systems approach to problem solving
 - (d) 'Follow up' step in systems approach to problem solving

- (e) 'Problem identification and definition' step in systems approach to problem solving. [<Answer>](#)
30. In mesh topology, if there are n devices, the number of point-to-point links are [<Answer>](#)
- $2n$
 - $n(n+1)/2$
 - $n(n-1)/2$
 - n^2
 - $n(2n+1)/2$.
31. Robert Zmud and James Cox identified four levels of involvement that can be applied to each of the implementation stages. They include consultation, influence, commitment and responsibility. They proposed that every group's level of involvement varied with each stage of the implementation process. The level(s) of involvement of operating team during 'Development' stage is/are [<Answer>](#)
- Influence
 - Responsibility
 - Commitment
 - Commitment and influence
 - Commitment and responsibility.
32. MIS has been implemented in organizations for over 40 years worldwide. However, there are few organizations which have achieved success in implementing MIS. The major reason for this is the organization's resistance to change. Which of the following statements is /are **true** about resistance to change? [<Answer>](#)
- Resistance to change can also occur when the employees are given proper training in the use of new technology.
 - Centralized data control in a centralized organization can lead to employee resistance in accepting the system.
 - Resistance to change traces the technical disfunctionalities in the system that can lead to resistance in using the system.
- Only (III) above
 - Both (I) and (II) above
 - Both (I) and (III) above
 - Both (II) and (III) above
 - All (I), (II) and (III) above.
33. Planning the MIS implementation is all about how the MIS design can be transformed into a physical reality. It involves [<Answer>](#)
- Procurement of the necessary equipment.
 - Installation of networks.
 - Documenting the system.
 - Training the employees.
- Both (I) and (II) above
 - Both (II) and (III) above
 - (I), (II) and (III) above
 - (II), (III) and (IV) above
 - All (I), (II), (III) and (IV) above.
34. Which of the following statements is/are **true** about steps in MIS implementation planning? [<Answer>](#)
- The first step in MIS implementation planning is to identify all the tasks that are to be executed as part of the implementation process.
 - A logical sequence in the MIS implementation planning implies that a task can begin only after the preceding task has been completed.
 - In MIS implementation planning, a controlling system is used to minimize the deviations from the planned path of action.
- Only (I) above
 - Only (III) above
 - Both (I) and (III) above
 - Both (II) and (III) above
 - All (I), (II) and (III) above.
35. Robert Zmud and James Cox identified four levels of involvement that can be applied to each of the implementation stages. They include consultation, influence, commitment and responsibility. They proposed that every group's level of involvement varied with each stage of the implementation process. The level(s) of [<Answer>](#)

involvement of system team during the 'Technical design' stage is/are

- (a) Influence
- (b) Responsibility
- (c) Commitment and consultation
- (d) Commitment and influence
- (e) Commitment and responsibility.

[<Answer>](#)

36. In the MIS implementation process, the point at which the new system replaces the old system is called as

- (a) Blackout
- (b) Break down
- (c) Cross over
- (d) Cutover
- (e) Turn off.

[<Answer>](#)

37. Which of the following statements is/are **false** about test description?

- I. A test description should briefly and clearly identify the objectives of the system and its ultimate goal.
- II. The test description is derived from the test specification.
- III. Test description contains details about the duration of the test, the methodologies and procedures to be followed in testing.

- (a) Only (II) above
- (b) Only (III) above
- (c) Both (I) and (II) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above.

[<Answer>](#)

38. Training to organizational members is given in general as well as in specific areas. Which among the following includes training given in general areas?

- I. Introduction to information system concepts.
- II. Technical details about operating MIS in functional areas.
- III. Training regarding connectivity and flow of information to and from each department.
- IV. Development of interpersonal skills.

- (a) Both (I) and (II) above
- (b) Both (II) and (III) above
- (c) (I), (II) and (III) above
- (d) (I), (III) and (IV) above
- (e) All (I), (II), (III) and (IV) above.

[<Answer>](#)

39. The critical path calculation in projects is mainly about how to

- (a) Identify tasks
- (b) Establish relationships among tasks
- (c) Establish a schedule for all the tasks to be completed
- (d) Establish a reporting and control system
- (e) Prepare a cost estimate for the tasks.

[<Answer>](#)

40. Robert Zmud and James Cox identified four levels of involvement that can be applied to each of the implementation stages. They include consultation, influence, commitment and responsibility. They proposed that every group's level of involvement varied with each stage of the implementation process. The level(s) of involvement of functional head during the 'Evaluation' stage is/are

- (a) Influence
- (b) Responsibility
- (c) Consultation
- (d) Commitment and influence
- (e) Commitment and responsibility.

[<Answer>](#)

41. Which of the following statements is/are **true** regarding Information Resources Management Association (IRMA)?

- I. Students are eligible to become members of IRMA.
- II. The primary objective of IRMA is to provide resources, assistance and other support to individuals who want to enhance their knowledge in Information Resource Management (IRM).
- III. IRMA provides professional and educational services to individuals and organizations for a low membership fee.

- (a) Only (III) above
 (b) Both (I) and (II) above
 (c) Both (I) and (III) above
 (d) Both (II) and (III) above
 (e) All (I), (II) and (III) above.
42. “The information is either used by the organization to generate further value or it is sold as a commodity to gain financial benefits”. [<Answer>](#)
- Which of the following elements of Information Resource Management (IRM) relates to the above sentence?
- (a) Ownership
 (b) Cost and value
 (c) Development
 (d) Exploitation
 (e) Identification.
43. Which among the following terms can be defined as the process of creation, retention, updation, dissemination and exploitation of knowledge? [<Answer>](#)
- (a) Knowledge repository
 (b) Knowledge management
 (c) Knowledge organization
 (d) Knowledge dissemination
 (e) Knowledge engineering.
44. Information is derived from data (facts) and data can either be structured or unstructured. Which of the following statements is/are **false** regarding unstructured data? [<Answer>](#)
- I. It is found in data files.
 II. It is found in e-mail systems.
 III. It is not found in drawings.
- (a) Only (I) above
 (b) Only (II) above
 (c) Both (I) and (II) above
 (d) Both (I) and (III) above
 (e) Both (II) and (III) above.
45. Consider the following: [<Answer>](#)
- I. People.
 II. Task.
 III. Technology.
 IV. Culture.
 V. Structure.
- Which of the above are the components of an organization when it is viewed as a socio-technical system?
- (a) (I), (II) and (III) above
 (b) (I), (III) and (V) above
 (c) (I), (IV) and (V) above
 (d) (I), (III),(IV) and (V) above
 (e) All (I), (II), (III), (IV) and (V) above.
46. Which of the following controls provided by ISO 17799 includes access control into the premises, tracking of assets movement (transfer) within the premises? [<Answer>](#)
- (a) Asset classification and control
 (b) Organization security control
 (c) System development and maintenance control
 (d) Physical and environmental security control
 (e) Communications and operations management control.
47. Which of the following controls provided by ISO 17799 includes capacity planning, housekeeping, etc.? [<Answer>](#)
- (a) Business continuity management control
 (b) Organizational security control
 (c) Physical and environmental security control
 (d) System development and maintenance control
 (e) Communications and operations management control.

48. Which of the following controls provided by ISO 17799 includes a set of standards and procedures that govern the development and use of security controls in an organization? [<Answer>](#)
- (a) Physical and environmental security control
 - (b) System development and maintenance control
 - (c) Compliance control
 - (d) Communications and operations management control
 - (e) Access control.
49. Which of the following statements is/are **true** about cryptography? [<Answer>](#)
- I. Cryptographic algorithm works with a key, known as cipher.
 - II. In cryptography, data security is dependent on only the strength of the algorithm.
 - III. Cryptographic algorithm works with a key which may either be a word, a number, or a phrase for encrypting plain text.
- (a) Only (III) above
 - (b) Both (I) and (II) above
 - (c) Both (I) and (III) above
 - (d) Both (II) and (III) above
 - (e) All (I), (II) and (III) above.
50. Providing privacy for messages and data by hiding the information using various encryption techniques is called [<Answer>](#)
- (a) Authentication
 - (b) Non-repudiation
 - (c) Confidentiality
 - (d) Integrity
 - (e) Audit trail.
51. Which of the following statements is/are **true** regarding access to information? [<Answer>](#)
- I. Prior to implementation of information systems, access to information was in the form of printed documents.
 - II. Access to important information is provided at a fee that varies depending upon the nature and type of information.
 - III. Using computers, one can obtain the required information from huge database within a very short period of time.
- (a) Only (I) above
 - (b) Only (III) above
 - (c) Both (I) and (III) above
 - (d) Both (II) and (III) above
 - (e) All (I), (II) and (III) above.
52. Hacking into other systems, intruding others' privacy, manipulating organizational data for personal gains, and all such other acts fall under [<Answer>](#)
- (a) Invisible abuse
 - (b) Invisible programming values
 - (c) Invisible calculations
 - (d) Logical malleability
 - (e) Transformational factor.
53. In the context of Disaster Recovery Plan (DRP), which of the following statements **best** defines critical functions? [<Answer>](#)
- (a) Functions that can be manually performed but only for a short period of time
 - (b) Functions that cannot be performed unless they are replaced by similar functions
 - (c) Functions that can be performed manually for an extended period of time at a reasonable cost
 - (d) Functions that are episodic in nature and may extend for a period at little or no cost to the company
 - (e) Functions that should be recovered within 24 hours of the disaster.
54. Emergency plan is one of the components of Disaster Recovery Plan (DRP). Emergency plan constitutes [<Answer>](#)
- I. The site for assembling the resources and restarting the operations.
 - II. The conditions that need to be fulfilled before ascertaining that the site is safe and can be reused should be specified.
 - III. The time frame set for the recovery of each system.
 - IV. The process of carrying out the evacuation.
- (a) Both (I) and (II) above

- (b) Both (I) and (III) above
(c) Both (II) and (IV) above
(d) (I), (II) and (IV) above
(e) (I), (III) and (IV) above.
55. Testing the Disaster Recovery Planning (DRP) is carried out in three phases called Paper test, Preparedness test and Post test. Which of the following statements is/are **true** regarding these phases? [<Answer>](#)
- I. Paper test is a smaller (or) localized version of the full test and performed regularly on various aspects of the plan and is a cost effective way to gradually obtain evidence about the effectiveness of the plan.
II. Preparedness test involves the major players in the executing team attempting to determine what might happen in case a particular type of disruption takes place.
III. Post-test include sending back the resources to the appropriate places, disconnecting the equipment, sending back the personnel, and deleting all company data from third-party or backup systems.
- (a) Only (III) above
(b) Both (I) and (II) above
(c) Both (I) and (III) above
(d) Both (II) and (III)above
(e) All (I), (II) and (III) above.
56. Which among the following statements is **false** regarding Sarbanes-Oxley Act (SOX)? [<Answer>](#)
- (a) SOX increased the corporate responsibility for any fraudulent deeds
(b) According to SOX, all the financial reports were to be filed with the Securities and Exchange Commission
(c) SOX required all public companies to be registered with the established Public Company Accounting Oversight Board
(d) SOX required only CFO to certify the financial reports
(e) According to SOX, each member of the audit committee had to be either a member of the board of directors or independent.
57. A Balanced Scorecard (BSC) is a management tool that helps in performance measurement of a business from different perspectives. The time spent on training employees comes under which of the following perspectives? [<Answer>](#)
- (a) Learning and growth perspective
(b) Financial perspective
(c) Customer perspective
(d) Internal business process perspective
(e) Both (a) and (c) above.
58. IT Infrastructure Library (ITIL) framework is published in a series of eight books called sets. These sets are further divided into disciplines. Which of the following sets includes disciplines like change management and release management? [<Answer>](#)
- (a) Service support
(b) Planning to implement service management
(c) Infrastructure management
(d) Service delivery
(e) Software assets management.
59. Control Objectives for Information and related Technology (COBIT) describes 34 IT control processes that are covered under four domains. Which of the following statements is/are **false** regarding the ‘acquisition and implementation’ domain? [<Answer>](#)
- I. It explains how the technology should be used to achieve organizational goals.
II. It provides guidelines on how to increase the life of the deployed technology.
III. It explains about the execution and results of implementing IT systems and about the support processes such as security which help in executing IT systems efficiently.
- (a) Only (I) above
(b) Only (II) above
(c) Both (I) and (II) above
(d) Both (I) and (III) above
(e) Both (II) and (III) above.
60. A good example of cryptosystem is the Pretty Good Privacy (PGP). As PGP combines both conventional and public key cryptography it can be called as a hybrid cryptosystem. Arrange the following steps in a **correct** sequence that take place in PGP. [<Answer>](#)

- I. The secret key is encrypted to the recipients' public key.
 II. A secret key is randomly generated.
 III. The data gets compressed.
 IV. The secret key and an encryption algorithm encrypt the plain text.
- (a) II-I-IV-III
 (b) II-III-I-IV
 (c) II-III-IV-I
 (d) III-II-IV-I
 (e) III-II-I-IV.
61. In which of the business models, the main product is usually sold at a loss while profits are captured through the consumables that have a high margin? [<Answer>](#)
- (a) Auction model
 (b) Multi-level marketing model
 (c) Tied products model
 (d) Clicks-and-flips model
 (e) Loyalty model.
62. Which of the following statements is/are **true** about Pyramid scheme business model? [<Answer>](#)
- I. In Pyramid scheme model, money is primarily exchanged for enrolling other people into a particular scheme.
 II. Pyramid scheme model involves the delivery of product (or) service.
 III. Offers are usually sold in Pyramid scheme model.
- (a) Only (I) above
 (b) Both (I) and (II) above
 (c) Both (I) and (III) above
 (d) Both (II) and (III) above
 (e) All (I), (II) and (III) above.
63. IT in various fields of business has led to the emergence of IT-enabled Services, popularly known as ITeS. ITeS are divided into the various categories. Which of the following categories of ITeS focus more on improving the process experience in order to attract more customers? [<Answer>](#)
- (a) Processing services that are industry-specific
 (b) Customer management services
 (c) Back office support services
 (d) Both (a) and (b) above
 (e) Both (b) and (c) above.
64. Dell Inc., a U.S.A based computer hardware company is selling their goods to customers without any intermediaries. The process of eliminating the number of intermediaries between the manufacturer and customer is called [<Answer>](#)
- (a) Cross-industry competence
 (b) Re-intermediation
 (c) Gatekeeper model
 (d) Blurring
 (e) Disintermediation.
65. Which of the following statements is/are **true** about companies that adopt different models of global business strategy? [<Answer>](#)
- I. Multinational companies will try to exploit the knowledge of existing local players.
 II. Subsidiaries of international companies are less efficient, less flexible, less independent, and have comparatively less autonomy than the subsidiaries of multinational companies.
 III. In international companies, the parent company retains its control and influence upon the subsidiaries, but comparatively more than that imposed by a global company.
- (a) Only (I) above
 (b) Only (II) above
 (c) Both (I) and (II) above
 (d) Both (I) and (III) above
 (e) All (I), (II) and (III) above.
66. Organizations face several challenges while globalizing their business operations. The global Chief Information Officer (CIO) should be a strong communicator who has the ability to motivate and lead the country-specific [<Answer>](#)

CIOs. The above statement is related to which of the following challenges?

- (a) Problem of control
- (b) Computing standards
- (c) Vendor problems
- (d) Operational problems
- (e) Varied set of skills.

67. The **most** important point to be considered while developing a Global Management Information System (GMIS) is that [<Answer>](#)

- (a) It should consider the cultural factors of the countries in which the organization is operating
- (b) It should match with the global business strategy of the organization
- (c) It should ensure transborder flow and sharing of data allowed by the country or the countries
- (d) It should effectively use the technological infrastructure of the countries in which the organization is planning to operate
- (e) It should consider the telecommunication standards of the countries in which the organization is planning to operate.

68. Internally, information systems in a non-profit organization are used for [<Answer>](#)

- I. Managing resources of the organization.
 - II. Exposing the organization's mission, purpose and objectives to the general public.
 - III. Locating donors.
 - IV. Monitoring the activities of the organization on a regular basis.
- (a) Both (I) and (II) above
 - (b) Both (I) and (IV) above
 - (c) Both (II) and (IV) above
 - (d) (I), (III) and (IV) above
 - (e) All (I), (II), (III) and (IV) above.

69. Which of the following statements is/are **true** regarding the CRY Financial Accounting System (CRYFAS)? [<Answer>](#)

- I. CRYFAS maintains the books of the NPOs based on the Indian Companies Act of 1956.
 - II. CRYFAS helps in transferring the transactions of a branch to the head office and vice versa.
 - III. CRYFAS enables integration of the system with other systems in line with the CRY donation management system.
- (a) Only (III) above
 - (b) Both (I) and (II) above
 - (c) Both (I) and (III) above
 - (d) Both (II) and (III) above
 - (e) All (I), (II) and (III) above.

70. Which of the following information systems at CRY are used for strategic information analysis and providing better service to donors? [<Answer>](#)

- (a) Financial accounting system
- (b) Donation management system
- (c) Contact management system
- (d) Volunteer management system
- (e) Transaction management system.

71. MarketSite and Ariba Network are examples of [<Answer>](#)

- (a) Translator hubs
- (b) One-to-Many marketplaces
- (c) Aggregator hubs
- (d) Collaboration hubs
- (e) Broker hubs.

72. The concept of Corporate Performance Management was introduced by [<Answer>](#)

- (a) TRW Nelson
- (b) Gartner Inc.
- (c) Commerce One
- (d) Xavier Institute of Management
- (e) Forest W.Horton.

73. PricewaterhouseCoopers has identified four distinct phases of e-business. Arrange the below statements from [<Answer>](#)
fourth to first phase according to PricewaterhouseCoopers.
- I. Putting supply chain management processes online by linking suppliers with the enterprise, using extranets and intranets.
 - II. Convergence will lead to innovative products and services.
 - III. Implementation of a website that will enable the concerned organization to buy and sell online.
 - IV. Organization forms alliances with other online players indicating the adoption of e-business as a commercial tool.
- (a) I-II-IV-III
 - (b) I-III-II-IV
 - (c) II-IV-I-III
 - (d) III-IV-II-I
 - (e) III-I-IV-II.
74. Electronic government service centers that undertake issue of passports, registration of motor vehicles, etc are examples of [<Answer>](#)
- (a) Government-to-Citizen Model
 - (b) Citizen-to-Government Model
 - (c) Government-to-Business Model
 - (d) Government-to-Government Model
 - (e) Business-to-Employee Model.
75. Businesses need to be highly agile for fulfilling customer demand. Which of the following is/are the factor(s) that will ensure e-business agility? [<Answer>](#)
- I. Conduct lengthy analysis.
 - II. Test everything and test all the time.
 - III. Expect occasional sub-optimal results.
 - IV. Flatten the hierarchy.
- (a) Only (II) above
 - (b) Both (II) and (III) above
 - (c) (I), (II) and (III) above
 - (d) (II), (III) and (IV) above
 - (e) All (I), (II), (III) and (IV) above.
76. In Enterprise Application Integration (EAI), simulation technique is used for [<Answer>](#)
- (a) Testing
 - (b) Integration
 - (c) Consolidation
 - (d) Application filtering
 - (e) Modifying the application.
77. Government-to-Government (G2G) marketplaces aim at cutting costs and improving government processes by interconnecting government departments. G2G marketplaces are also known as [<Answer>](#)
- (a) E-Democracy
 - (b) E-Debate
 - (c) E-Administration
 - (d) E-Collaboration
 - (e) E-Security.
78. The successful implementation of Enterprise Application Integration (EAI) is possible if the organization follows certain principles. Which of the following principles of Enterprise Application Integration (EAI) can resolve the issues of having no stability in applications, protocols, standards or technology? [<Answer>](#)
- (a) Alignment of plans to strategy
 - (b) Re-factoring interfaces
 - (c) Early and regular testing
 - (d) Common representation of data and process
 - (e) Enforcement of EAI architecture.
79. Which of the following statements is/are **false** regarding Enterprise Application Integration (EAI)? [<Answer>](#)
- I. EAI is designed to address the needs of medium-sized to large enterprises.
 - II. EAI helps the organization's systems to map existing databases and legacy applications and extract

information out of them.

III. EAI is a coding tool rather than a high-level architectural tool.

- (a) Only (II) above
- (b) Only (III) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) Both (II) and (III) above.

80. Which of the following are the examples of Consumer-to Consumer (C2C) websites? [<Answer>](#)

- I. Indiatimes.com.
- II. Yubuy.com.
- III. Crmguru.com.
- IV. Alibaba.com.

- (a) Both (I) and (II) above
- (b) Both (I) and (III) above
- (c) Both (II) and (IV) above
- (d) (I), (II) and (III) above
- (e) (II), (III) and (IV) above.

81. Which of the following statements is/are **false** with regard to relationships in the supply chain management process? [<Answer>](#)

- I. Strategic relationships are maintained between companies and suppliers of non-commodity items.
- II. Alternative suppliers for non-commodity items can be quickly obtained.
- III. Non-commodity items are not given any critical importance.

- (a) Only (I) above
- (b) Only (III) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) Both (II) and (III) above.

82. ERP packages were originally targeted at large corporations operating in multiple lines of business in several countries. Which of the following statements is/are **true** regarding business management applications? [<Answer>](#)

- I. Business management applications may have been either developed in-house or purchased from multiple suppliers in the form of package applications.
- II. Business management applications often run on heterogeneous technology platforms.
- III. Business management applications that are purchased from different vendors will easily integrate with the other enterprise systems without posing any problems.

- (a) Only (I) above
- (b) Both (I) and (II) above
- (c) Both (I) and (III) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above.

83. In the supply chain execution process, factors like time, quantity and location with regard to sub-assemblies is **not** determined by [<Answer>](#)

- I. Master production schedule.
- II. Manufacturing resource planning system.
- III. Order planning.
- IV. Replenishment.

- (a) Both (I) and (III) above
- (b) Both (I) and (IV) above
- (c) Both (II) and (III) above
- (d) Both (II) and (IV) above
- (e) Both (III) and (IV) above.

84. Which of the following components of the e-supply chain enables companies to optimize the routing of products and allows customers to track the real-time shipping status of the product? [<Answer>](#)

- (a) Supply chain replenishment
- (b) Collaborative planning
- (c) Collaborative product development
- (d) E-procurement

- (d) E-procurement
(e) E-logistics. [<Answer>](#)
- 85.** Which of the following is/are **not** the characteristic(s) of responsive supply chain? [<Answer>](#)
- I. Available-to-Promise (ATP) factor.
II. Assigning delivery dates.
III. Upward & downward integration across the supply chain.
IV. Compliance of delivery schedules.
- (a) Only (III) above
(b) Both (I) and (II) above
(c) Both (I) and (III) above
(d) Both (III) and (IV) above
(e) (I), (II) and (IV) above.
- 86.** In which of the following modules of supply chain planning, operating plans are developed? [<Answer>](#)
- (a) Advanced scheduling and manufacturing planning
(b) Demand planning
(c) Distribution planning functions
(d) Capacity planning
(e) Aggregate inventory planning.
- 87.** The latest trend in make-to-stock model is to assemble the final product in the distribution channel. This process is called [<Answer>](#)
- (a) Imbursement
(b) Advancement
(c) Deployment
(d) Replenishment
(e) Postponement.
- 88.** According to the ARIS framework which of the following view is also called control view? [<Answer>](#)
- (a) Data view
(b) Process view
(c) Organization view
(d) Function view
(e) Program view.
- 89.** The time gap between the receipt of the order and the delivery of the product is called [<Answer>](#)
- (a) Lead time
(b) Finishing time
(c) Grace time
(d) Cycle time
(e) Response time.
- 90.** Which of the following statements is/are **true** with regard to the Big Bang approach of ERP implementation? [<Answer>](#)
- I. Most organizations prefer Big Bang approach because the risks can be controlled more easily in this approach.
II. Big Bang approach forces employees to cope with change quickly.
III. Big Bang approach calls for rapid realignment of processes, greater commitment from the organization in terms of time and resources and greater cooperation from employees in terms of longer hours of work.
- (a) Only (II) above
(b) Both (I) and (II) above
(c) Both (I) and (III) above
(d) Both (II) and (III) above.
(e) All (I), (II) and (III) above.
- 91.** Which of the following statements is/are **true** regarding Enterprise Resource Planning (ERP)? [<Answer>](#)
- I. ERP uses the function view of the organization rather than process view that traditional enterprise software used.
II. ERP packages were originally targeted at large corporations operating in multiple lines of business in several countries.
III. ERP ensures that data entered in one of the functional modules is made available to other modules that need the data.

- (a) Only (II) above
 (b) Both (I) and (II) above
 (c) Both (I) and (III) above
 (d) Both (II) and (III) above
 (e) All (I), (II) and (III) above.
92. The maintenance of ERP system is done with various tools. Which of the following are tasks of the use-management tool? [<Answer>](#)
- I. It helps the management to monitor the performance of various ERP applications.
 II. It manages the applications when they are being accessed by users.
 III. It manages inventory and assets, configures software, modifies applications when needed and distributes software.
 IV. It schedules jobs, monitors events, data output, backup and recovery.
- (a) Both (I) and (II) above
 (b) Both (I) and (III) above
 (c) Both (II) and (III) above
 (d) Both (II) and (IV) above
 (e) Both (III) and (IV) above.
93. Which of the following statements is/are **true** regarding Service-Oriented Architecture (SOA)? [<Answer>](#)
- I. SOA links only dependent applications in a network enabling the network to create custom composite applications.
 II. SOA is an approach towards designing, implementation and deployment of information systems.
 III. The implementation of SOA model should be done in smaller phases.
- (a) Only (II) above
 (b) Both (I) and (II) above
 (c) Both (I) and (III) above
 (d) Both (II) and (III) above
 (e) All (I), (II) and (III) above.
94. “Different department representatives run the business processes on the system and report the problems they encounter in the process to the implementation team. This team discusses its findings with the management and fine-tunes the system to resolve the problems”. [<Answer>](#)
- Which of the following phases of phased approach refers to the above statement?
- (a) As-is process study
 (b) To-be process design
 (c) Simulation
 (d) Actual implementation
 (e) System analysis.
95. After the implementation of ERP in an organization, which of the following persons’ responsibilities become crucial in terms of response time and query search improvement? [<Answer>](#)
- (a) External consultants
 (b) Top management
 (c) Project leaders
 (d) Team leaders
 (e) ERP users.
96. Which of the following statements are **true** with regard to e-CRM tools? [<Answer>](#)
- I. Inference-based software is used for cross-selling.
 II. Rules-based software keeps track of products/services that the online visitor has browsed.
 III. Tracking of customer behavior and grouping customers exhibiting similar behavior is possible through rules-based software.
 IV. Rules-based software is used for personalization of all products.
- (a) Both (I) and (II) above
 (b) Both (I) and (III) above
 (c) Both (II) and (III) above
 (d) (I), (II) and (III) above
 (e) (I), (III) and (IV) above.
97. E-CRM helps attract new customers and retain existing customers. There are certain factors that need to be analyzed to enhance the effectiveness of a CRM architecture. Which of the following factors contribute to [<Answer>](#)

analyzed to enhance the effectiveness of e-CRM architecture. Which of the following factors contribute to enhance the effectiveness of the architecture?

- I. Identification and targeting most valuable customers.
 - II. Customer tracking restricted by locational constraints.
 - III. Supporting real-time customization and personalization based on customer demand.
- (a) Only (I) above
 - (b) Both (I) and (II) above
 - (c) Both (I) and (III) above
 - (d) Both (II) and (III) above
 - (e) All (I), (II) and (III) above.

98. The purpose of cross-selling and up-selling software in the e-CRM implementation process is given below. [<Answer>](#)
Identify the **correct** sequence of steps.

- (a) Identification of prospective customers, Tracking customer details, Forwarding customer details to salespersons
- (b) Forwarding customer details to salespersons, Identification of prospective customers, Tracking customer details
- (c) Tracking customer details, Forwarding customer details to salespersons, Identification of prospective customers
- (d) Identification of prospective customers, Forwarding customer details to sales persons, Tracking customer details
- (e) Tracking customer details, Identification of prospective customers, Forwarding customer details to salespersons.

99. Which of the following options is/are **not** the fundamental element(s) of E-CRM infrastructure? [<Answer>](#)

- I. Customer data computing architecture.
 - II. Attracting new customers.
 - III. Business rules for coordinating interactions.
- (a) Only (I) above
 - (b) Only (II) above
 - (c) Only (III) above
 - (d) Both (I) and (II) above
 - (e) Both (II) and (III) above.

100. The element(s) of the retention management components in E-CRM which helps customer segmentation is/are [<Answer>](#)

- I. Help desk software.
 - II. Field service operations.
 - III. Decision support system.
- (a) Only (II) above
 - (b) Only (III) above
 - (c) Both (I) and (II) above
 - (d) Both (I) and (III) above
 - (e) Both (II) and (III) above.

END OF QUESTION PAPER

Suggested Answers

Information Technology & Systems - II (MB232): July 2008

Answer	Reason
1. C	Wireless networks are the fastest growing trend in networks – no wires are necessary to make the connection. Wireless networks use three types of protocols: Wireless Application Protocol (WAP), Short Messaging Service (SMS), and Global System for Mobile (GSM). While WAP is a special protocol that allows mobiles to connect to the Internet, SMS is a service of sending text messages of up to 160 characters length to mobile phones and GSM is the most widely used mobile telephone protocol world over.

2. C Local Area Network (LAN) covers a limited area such as office, classroom, manufacturing plant, etc. A Metropolitan Area Network (MAN) is a bigger version of a LAN and normally uses similar technology. It evolved primarily to permit LANs to interconnect across a metropolis or a city. A Wide Area Network (WAN) covers a large geographical area, generally a country or a continent. ≤
3. B A major goal of networking is scalability. Scalability is the ability to increase system performance gradually as the workload increases. For example, a scalable network system would be one that can start with just a few nodes but can easily expand to thousands of nodes. ≤
4. A A mesh topology is a robust one. Even if a particular link becomes useless, it will not affect the entire system. This type of network ensures security and privacy. Mesh topology has a limited use as it requires a huge amount of cabling and a number of I/O ports and it is difficult to install and reconfigure. ≤
5. A A bus topology has a multipoint configuration. A bus topology is easy to install, but difficult to reconfigure. Adding new devices is difficult in a bus topology as it requires modifications or replacement of the cable. Any puncture or break in the bus stops transmission. ≤
6. D The disadvantage in ring topology is the direction of the traffic, which is unidirectional, that is, it flows in a single direction. Any small rupture in the ring would disable the whole network. In ring topology, if there are n devices, the number of point-to-point links is n only, not (n-1). ≤
7. D A bridge is a device that is used for connecting multiple network segments. A bridge is used only to increase the length of the network. When compared to repeaters they are slower, as they do some extra processing. They are costlier than repeaters. ≤
8. D The session layer provides the means for establishing, maintaining, and terminating a dialogue or session between the two end users. It specifies the dialogue type (one-way, two-way alternative, or two-way simultaneous), initiates a dialogue, and even regulates the direction of message flow. The transport layer ensures the complete transfer of data, error recovery, and flow control between the systems. ≤
9. C Network layer sets up a logical path between the source and the destination computers in the network, known as the virtual circuit, for sending out data from one node to another. This layer ensures successful delivery of a packet to the destination. Data link layer splits data packets into frames which are transmitted sequentially by the sender. ≤
10. C In TCP/IP reference model, the Internet layer is the key layer that holds the whole architecture together. ≤
11. E The Public Switched Telephone Network or PSTN was the first telecom network. The PSTN telephone lines used analog technology. ≤
12. A Twisted-pair wires are more flexible than coaxial cables and optical fibers and it is very easy to install them. And twisted-pair wires also enhance the electrical ≤

very easy to install them. And twisted-pair wires also enhance the electrical performance and give out higher bit rates compared to the untwisted-pair wires. Communication satellites and cellular phone systems are unguided media.

13. D Coaxial cables are mostly used for local area networks and in bus networks. ≤

14. D The second statement is false because in converged networks, a single communication network infrastructure is used. This reduces the costs involved in the network bandwidth. This network infrastructure also reduces the administration costs and the cost of integrating applications. All these in turn enable reduction of the total ownership cost. Whereas, remaining statements are true regarding converged networks. ≤

15. C Communication satellites are special applications of microwaves. Communication satellites are mainly used for voice and video transmission where high-speed transmission of large volumes of data is required. The disadvantage with using satellites as a telecommunication medium is the high cost involved in manufacturing and installing them. ≤

16. B Terrestrial microwave involves earthbound microwave systems that transmit high-speed radio signals between the relay stations spaced approximately at 30 mile intervals. Microwaves are similar to radio waves or light and can cover long distances. This medium can be widely used in locations where cabling is very expensive. The major disadvantage with this system is that the microwave antennas are required to be placed in line of sight or in a place where they are visible from each other. Geographical constraints could make this a difficult proposition in some areas. ≤

17. B A wireless LAN enables users to move around with a computer or a device and stay connected to the network. Infrared LAN is a wireless LAN that makes use of infrared rays to establish network links between the various LAN components. Spread spectrum is the technology widely used in wireless LANs. This technology is based on radio waves which facilitate communication between computer systems or devices within a limited area. Ultra violet LAN technology is not there in Wireless LANs. ≤

18. D An internetwork is a collection of interconnected networks. These network processors connect two or more dissimilar telecommunication networks into an internetwork using specialized processors called internetworked processors. Switches, routers, and hubs are the various internetworked processors. A repeater is networking device, which is used to retransmit a weak or low-level signal at a higher level or at higher power. But it will not connect two dissimilar telecommunication networks. ≤

19. D Many large corporations and other users have developed satellite networks, using satellite dish antennas known as VSAT (Very Small Aperture Terminal) to connect their distant work areas. A VSAT is a 2-way satellite ground station with a dish antenna. VSATs are commonly used to transmit credit card transactions. ≤

20. C A Point of Presence generally refers to a city or a location where one network can be connected to another. ≤

21. A A well-planned MIS not only takes care of the organization's current informational needs, but also its future informational needs. Planning of the MIS helps in adopting/choosing a better design as well as in the smooth implementation of the system in the organization. It is imperative to visualize the MIS as a strategic tool ≤

- that can maximize organizational effectiveness rather than as a technology that improves the operating efficiency of the organization.
22. A The components of MIS strategy set include system objectives, system constraints and system design strategies. The basic purpose of MIS is defined by the system objectives. To make the MIS implementation effective, it is necessary to identify the constraints associated with MIS. ≤
 23. C Designing is the process of creating the physical structure of the MIS. The process attempts to configure required systems and subsystems, equipment, software etc. The process of designing has to take into account the current as well as the future informational requirements. The process considers all the possible constraints that can hinder the information flow across the departments. ≤
 24. C MIS planning involves understanding the organization's mission, objectives and strategies. Designing an MIS is the process of identifying and allocating the optimum information infrastructure and resources to all those personnel who need a variety of information to make effective decisions in the long run. The MIS design specifies which resources are to be allocated to which department and/or personnel. The flow of information between departments and personnel is decided at the MIS design stage. ≤
 25. D Schonberger proposed a continuum of design approaches that varied from negligible user involvement to complement user involvement. In the initial stages of MIS implementation, the design part is dominated by the system analysts and programmers. ≤
 26. D William King and David Cleland have proposed an MIS design process called the information analysis model. This model consists of a series of eight steps. They are Identification of user set and interfacing organizations, Identification of decision areas, Definition of decision areas, Development of a descriptive model of the system, Development of a normative model of the system, Development of a consensus model of the system, Decision model identification and specification, Specification of information requirements. ≤
 27. D In Basic outsourcing relationship, the organization buys the products or services of the outsourcing vendor considering the price and convenience factors. In Preferred outsourcing relationship, the buyer and the vendor lay down preferences and prices which would benefit each other. In Strategic outsourcing relationship, both buyer and the seller share the risks and rewards equally. Very few organizations go in for these kinds of relationships. Remaining options are not relevant. ≤
 28. B RFP (Request for Proposal) is the document that is used for requesting the vendors to participate in the bidding process for hardware, software, and/or services. RFQ (Request for Quotation) is used in situations where the specifications of the product or the service are already known and where there is no need for discussing such details with the vendors. RFI (Request for Information) is used for finding out the potential products or services available in the market that can meet the needs of the organization. The document does not invite a seller to participate in the bid and does not involve any obligations on the part of either the buyers or the sellers. ≤
 29. E Any manager can use the systems approach irrespective of the type of problem. It provides a universal methodology with an inherent logic to solve any kind of problem through a series of steps. Herbert Simon proposed a model, which is similar to systems approach to problem solving and consist of four steps. Intelligence in this model is similar to 'Problem identification and definition' step in systems approach to problem solving. ≤
 30. C In mesh topology, if there are n devices, the number of point-to-point links are $n(n-1)/2$. ≤

31. D Levels of Involvement of the Organizational Members during MIS Implementation ≤

Implementation Stage	Top Management	Functional Head	Operating Team	System Team
Entire Project	Commitment	Responsibility	Commitment & Influence	Commitment & Consultation
Initiation	Influence	Responsibility	Commitment & Influence	Influence & Consultation
Strategic Design	Influence	Responsibility	Commitment & Influence	Commitment & Consultation
Technical Design	No Involvement	Influence	Commitment & Influence	Commitment & Responsibility
Development	No Involvement	Influence	Commitment & Influence	Commitment & Responsibility
Testing & Conversion	Consultation	Responsibility	Commitment & Influence	Commitment & Influence
Evaluation	Influence	Responsibility	Commitment & Consultation	Consultation

From the above table, the levels of involvement of functional head during Development stage are Commitment and influence.

32. A Resistance to change can also occur when the employees are not given proper training in the use of new technology. Centralized data control in a decentralized organization can lead to employee resistance in accepting the system. Resistance to change traces the technical disfunctionalities in the system that can lead to resistance in using the system. ≤

33. E The implementation planning, that is all about how the MIS design can be transformed into a physical reality. It involves procurement of the necessary equipment (including hardware and software), installation of networks, documenting the system, running the system live, generating information files, training the employees, etc. ≤

34. C The first step in implementation planning is to identify all the tasks that are to be executed as part of the implementation process. This is followed by the establishment of relationships between these tasks. The simplest relationship is to arrange the tasks in a logical sequence. A logical sequence need not imply that a task can begin only after the preceding task has been completed. Two or more tasks can begin simultaneously or overlap during the process or end simultaneously. A controlling system is used to minimize the deviations from the planned path of action. ≤

35. E Levels of Involvement of the Organizational Members during MIS Implementation ≤

Implementation Stage	Top Management	Functional Head	Operating Team	System Team
Entire Project	Commitment	Responsibility	Commitment & Influence	Commitment &
Initiation	Influence	Responsibility	Commitment & Influence	Influence & Consultation
Strategic Design	Influence	Responsibility	Commitment & Influence	Commitment &
Technical Design	No Involvement	Influence	Commitment & Influence	Commitment &
Development	No	Influence	Commitment & Influence	Commitment &

	Involvement		& Influence	& Responsibility
Testing & Conversion	Consultation	Responsibility	Commitment & Influence	Commitment & Influence
Evaluation	Influence	Responsibility	Commitment & Consultation	Consultation

From the above table, the level(s) of involvement of system team during the 'Technical design' stage are Commitment and responsibility.

36. D Cutover is the point at which the new system replaces the old system. This entails activities like the physical transfer of files, furniture, and other office equipment and also the movement of people. Whereas, remaining options are not relevant. ≤

37. D The first statement is true. Whereas remaining statements are false because those statements refer to test specification but not to the test description. ≤

38. D In order to make employees feel comfortable about using MIS on a regular basis, they have to be trained adequately. Training employees during and after the implementation process fulfills these educational requirements. Training is given in both general and specific areas. The general areas of training include: introduction to computers and information system concepts, how MIS provides connectivity to all the departments in the organization and how information flows to and from each department, and development of organizational members' interpersonal skills. The specific areas of training include information management in each functional area, technical details about operating the MIS in each functional area, etc. ≤

39. C The second stage in the MIS implementation planning involves developing a schedule that ensures the smooth flow of tasks. As the process of MIS implementation is considered as project, project management concepts are applied. During this stage, the critical path of the project is calculated and the most likely time of project completion is deduced after determining the starting time. This scheduling helps the management to plan for the allocation of resources to the various stages of the implementation process. ≤

40. B Levels of Involvement of the Organizational Members during MIS Implementation ≤

Implementation Stage	Top Management	Functional Head	Operating Team	System Team
Entire Project	Commitment	Responsibility	Commitment & Influence	Commitment & Consultation
Initiation	Influence	Responsibility	Commitment & Influence	Influence & Consultation
Strategic Design	Influence	Responsibility	Commitment & Influence	Commitment & Consultation
Technical Design	No Involvement	Influence	Commitment & Influence	Commitment & Responsibility
Development	No Involvement	Influence	Commitment & Influence	Commitment & Responsibility
Testing & Conversion	Consultation	Responsibility	Commitment & Influence	Commitment & Influence
Evaluation	Influence	Responsibility	Commitment & Consultation	Consultation

Evaluation	Influence	Responsibility	Commitment & Consultation	Consultation
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From the above table, the level of involvement of functional head in the 'Evaluation' stage is responsibility.

41. C The primary objective of IRMA is to create awareness about understanding information as one of the key assets of the organization and to promote the practice of managing these assets effectively to achieve organizational goals. Other objectives include providing resources, assistance, and other support to individuals who want to enhance their knowledge in this field. Students are eligible to become members of IRMA It provides professional and educational services to individuals and organizations for a low membership fee. ≤
42. D **Identification** involves discovering the information resources that are considered capable of providing quality information to the organization. ≤
Ownership is the act of accepting the responsibility for maintaining and managing the information resource.
Cost and value is the process of ascertaining the cost of the information resource and its inherent value through which the organization can benefit.
Development is the process of further enhancing the value of the information resource so as to maximize the benefits that can be derived from the resource.
Exploitation is the actual process through which the information resource is put to use, i.e., the information is either used by the organization to generate further value or it is sold as a commodity to gain financial benefits.
43. B Knowledge is the combination of information and experience. As an asset, it has to be updated, disseminated, and applied to various organizational problems. It has to be stored in inventories called knowledge repositories. Storage and updating of knowledge has led to knowledge management which can be defined as the process of creation, retention, updating, dissemination, and exploitation of knowledge. The process in which the expert knowledge is acquired, documented and incorporated as software is called knowledge engineering. ≤
44. D Information is derived from data (facts) and data can either be structured or unstructured. Structured data is well organized and systematic, which can be found in reports, databases, data files, etc. Unstructured data is subjective and unorganized in nature. It is found in e-mail systems, images, drawings, video clips, the web, etc. ≤
45. E An organization has to be viewed as a socio-technical system. The basic components of this system are people, task, technology, culture, and structure. In order to enhance the performance of an organization, managers must change one or more of these components. They also need to understand the relationships among these independent components. ≤
46. D Physical and environmental security control addresses all those risks that are inherent to the organizational premises which include location of the business, defining physical security premises, access control into the premises, tracking of assets movement (transfer) within the premises and between the premises and the environment. ≤
47. E Communications and operations management control includes various operational, capacity planning, network management, housekeeping, etc., controls and procedures that allow the organization to carry out secure operations and protect its information system. ≤
48. B System development and maintenance control addresses the ability of an organization to ensure that suitable information system security controls are incorporated as well as maintained. This control includes a set of standards and procedures that govern the development and use of security controls in an organization. ≤

49. A A cryptographic algorithm, alternatively referred to as a ‘cipher’, is used for data encryption and decryption. A cipher is a mathematical function. This algorithm works with a key, which may either be a word, a number, or a phrase for encrypting plain text. The data security is dependent on the strength of the algorithm and the secrecy of the key. ≤
50. C Confidentiality is all about providing privacy for messages and data by hiding the information using various encryption techniques. ≤
51. E Access to information was in the form of printed documents prior to implementation of information systems. Information technology has changed the means of accessing information. Using computers, one can obtain the required information from a huge database within a very short period of time. Access to important information is provided at a fee that varies depending upon the nature and type of information. ≤
52. A Invisibility factor refers to all those operations which are invisible to the user of the system. A lot of operations take place inside the computer. These lead to invisible programming values, invisible calculations and invisible abuse. Invisible abuse includes all those acts that are done intentionally, that are illegal, and cross ethical boundaries. Hacking into other systems, intruding others’ privacy, manipulating organizational data for personal gains, and all such actions fall under this category. ≤
53. B Critical functions are those that cannot be performed unless they are replaced by similar ones. Also termed as mission-critical functions, these systems and resources should be recovered within minutes or hours of the disaster. These functions cannot be replaced by manual methods. ≤
54. C Emergency plan must constitute the following: ≤
- The process of carrying out the evacuation.
 - The conditions that need to be fulfilled before ascertaining that the site is safe and can be reused should be specified.
- Backup plan will constitute the following:
- The site for assembling the resources and restarting the operations
 - The time frame set for the recovery of each system.
55. A The third statement is true regarding the phases. Whereas, first and second statements are false because Paper Test is an abstract level testing which involves the major players in the executing team attempting to determine what might happen in case a particular type of disruption takes place. Preparedness Test is a smaller or localized version of the full test and is performed regularly on various aspects of the plan and is a cost effective way to gradually obtain evidence about the effectiveness of the plan. ≤
56. D The fourth statement is false because both the CEO and CFO are required to certify the financial reports. Whereas, remaining statements are true regarding the SOX act. ≤
57. A The time spent on training employees comes under Learning and growth perspective. ≤

58. A (a) Service support disciplines include change management, release management and problem management. ≤
 (b) Planning to Implement Service Management describes the necessary steps that are required to shift to ITIL and to extract the benefits from the shift.
 (c) Infrastructure Management includes Network Service Management, Management of Local Processors, and Systems Management.
 (d) Service delivery talks about the services that the data center needs to provide to the business. Its disciplines include IT financial management, availability management and capacity management.
 (e) Software Assets Management guides the organizations on Software Asset Management (SAM) and also talks about the measures to be taken to perform it effectively and efficiently.
59. D The second statement is true regarding acquisition and implementation domain. ≤
 Whereas, remaining statements are false because Planning and Organization explains eleven control processes that tell us how the technology should be used to achieve organizational goals. Delivery and Support explains thirteen control processes that talk about the execution and results of implementing IT systems and about the support processes such as security and which help in executing IT systems efficiently. Monitoring gives out four control processes and deals with issues such as compliance with regulatory requirements.
60. D While using PGP, the data gets compressed, thus saving time and disk space. The ≤
 most important benefit of such compression is the enhancing of cryptographic security. Compression makes it more difficult for attackers to decipher the text. The PGP then creates a secret key that is randomly generated and is used only once, and this key in combination with the encryption algorithm encrypts plain text. After data encryption, the secret key is encrypted to the recipient's public key which along with the cipher text is sent to the recipient.
61. C Razor and Blades Model (also known as Bait and Hook model or Tied Products ≤
 model). In this model, a main product is sold at a subsidized price along with consumables that are essential for using it along with the main product. The main product is usually sold at a loss while profits are captured through the consumables that have a high margin.
62. C Pyramid Scheme Model (also known as Pyramid Scam model). In this model, ≤
 money is primarily exchanged for enrolling other people into a particular scheme. This model does not involve the delivery of any product or service. Offers are usually sold in this model. An offer can be sold for a fee to a person, who, in turn, can sell the offer to others. Whenever the person sells the offer, he/she will get some part of the fee collected.
63. B Back office support services are being outsourced in order to reduce costs and ≤
 enhance the profitability of the organization. Processing services that are industry-specific services focus more on enhancing the quality of delivery and experience. Customer management services focus more on improving the process experience in order to attract more customers.
64. E The process of eliminating the number of intermediaries between the manufacturer ≤
 and customer is called disintermediation.
65. B Multinational companies make the utmost use of the available local resources to ≤
 meet their requirements. However, they do not try to exploit the knowledge of existing local players. Subsidiaries of international companies are less efficient, less flexible, less independent, and have comparatively less autonomy than the subsidiaries of multinational companies. The parent company also retains its control and influence upon the subsidiaries, but comparatively less than that imposed by a

- and influence upon the subsidiaries, but comparatively less than that imposed by a global company.
66. A The global CIO should be a strong communicator who has the ability to motivate and lead the country-specific CIOs. This statement is related to Problem of control. ≤
67. B The most important point to be considered while developing a GMIS is to match it with the global business strategy of the organization. This process involves properly organizing the information systems function across the various countries where the organization is operating. ≤
68. D Internally, Information systems can be used for managing the resources of the organization, locating donors, recording and maintaining financial proceedings, and monitoring the activities of the organization on a regular basis. Such activities enhance the efficiency and productivity of the organization. Externally, information systems are used for making the organization's mission, purpose, and objectives known to the general public. They can be used for providing information to the public about the services rendered by the organization. Web-enabled information systems help the NPOs spread their message to the people, educate them, and in the process, build relationships with them. ≤
69. D In India, all non-profit and non-government organizations maintain their books of accounts based on the Bombay Public Trust Act of 1950. CRY maintains a computerized system for their accounting and MIS requirements. The CRY Financial Accounting System (CRYFAS) helps maintain the books of accounts for the NPOs based on this Act. CRYFAS helps in transferring the transactions of a branch to the head office and vice versa. CRYFAS enables integration of the system with other systems in line with the donation management system of the NPO. ≤
70. C CRY Contact Management System (CRYCMS) handles the marketing (front office) of CRY. This system enables interaction with individual donors, corporate donors, product buyers, etc. CRYCMS also provides service to the donors. CRYCMS enables the organization in providing better service, strategic information analysis and avoid concentration of information with one person or entity. ≤
71. A Translator hubs are exchanges that offer capabilities like buying, selling, and collaboration. These exchanges are similar to collaboration hubs. They provide data translation services to facilitate communication including EDI, electronic mail, fax, eXtensible Markup Language. MarketSite from Commerce One and Ariba Network from Ariba are examples of translator hubs. ≤
72. B The concept of Corporate Performance Management (CPM) was introduced by Gartner, Inc. in 2001. It is a management discipline that defines the processes, methods, metrics, and the systems that are required for managing performance of an organization. It is also referred to as business performance management (BPM). ≤
73. C PricewaterhouseCoopers (PWC) has identified four distinct phase of e-business. The first phase is marked by the implementation of a website that will enable the concerned organization to buy and sell online. The second phase, involves putting supply chain management processes online by linking suppliers with the enterprise, using extranets and intranets. In the third phase, the organization forms alliances with other online players indicating the adoption of e-business as a commercial tool. In the fourth phase, there is a convergence that will lead to innovative products and services. ≤
74. A Government-to-Citizen (G2C) websites provide a platform for the government to connect to citizens to provide them benefits and improve public services. Electronic government service centers that issue ration cards, accept electricity bills and water bills, issue passports, undertake registration of motor vehicles, etc are examples of ≤

G2C model.

75. D Short customer life cycles and rapid pace of business growth make speed and agility key factors in the e-business environment. The four factors that will ensure e-business agility are avoid lengthy analysis, flatten the hierarchy, expect occasional sub-optimal results and test everything & test all the time. ≤
76. A One of the principles in EAI is to conduct early and regular testing. By doing this, it becomes cheaper to build executable models. Testing is carried out by using the simulation technique. Simulators are close to the real-world processes and systems and hence provide meaningful information with a reasonable ability to predict outcomes. ≤
77. C G2G marketplaces are also known as E-Administration. ≤
78. B Re-factoring interfaces: A stable interface is the key to sustaining quality integration, yet there's no stability in applications, protocols, standards, or technology. We can resolve this issue by reportedly re-factoring the interface software as an organization adopts new technology. ≤
79. B Statement (III) is false, remaining statements are true regarding Enterprise Application Integration (EAI). EAI is a high-level architectural tool rather than a coding tool. ≤
80. C Yubuy.com, Alibaba.com are examples of Consumer-to Consumer (C2C) websites. Indiatimes.com is an example of Business-to-Consumer (B2C) website. crmguru.com is an example of Business-to-Business website. ≤
81. E Only statement (I) is true. Remaining statements are false. Alternative suppliers for non-commodity items are not easily available. They are critical for production processes and suppliers engaged in these commodities are few in number. ≤
82. B Business management applications purchased from different vendors are not easily integrated with the other enterprise systems and pose problems in day-to-day operations. Whereas, remaining statements are true regarding business management applications. ≤
83. E Production is a major component of the supply chain execution process. In the current scenario, sub-assemblies are procured when products are to be assembled. The time, quantity and location where the subassemblies will be required, are determined by the master production schedule and the manufacturing resource planning system. ≤
84. E (a) Supply chain replenishment involves aligning the real time demand of a particular business with its suppliers and partners in order to improve customer service and enhance customer satisfaction. ≤
(b) Collaborative planning enables organizations to coordinate product flows across their business units, optimize resource utilization and inventory levels through integration of operations across the suppliers and partners in the

levels through integration of operations across the suppliers and partners in the value chain.

- (c) Collaborative product development deals with the design and implementation of product development process within the organization and across partners and suppliers in the supply chain.
- (d) E-Procurement refers to the streamlining of the process across business partners in the supply chain using e-business technology.
- (e) E-Logistics is concerned with the redesigning of warehousing and product distribution using e-business technology. E-logistics enables companies to optimize the routing of products and allows customers to track the real-time shipping status of the product.

85. A Responsive supply chains enable quick response to customer requirements. The most important factor to consider is whether the inputs for the product are available, so that a commitment to deliver can be made. In short, this is called the available-to-promise (ATP) factor. Companies adopting the build-to-order strategy need to be aware of the material availability before they commit to any order. ATP tracking monitors material availability in the entire supply chain. This helps the company check on material availability, assign delivery dates and meet deliveries on schedule. Enterprising supply chain aims to bring about changes in the supply chain in response to changes in customer demand as quickly as possible. To compete effectively, companies should respond quickly to changing market conditions and customer preferences. This requires two-way integration (up and down) in the supply chain. ≤
86. C Operating plans are developed in the distribution planning functions module of supply chain planning. Whereas, last two options belong to the supply chain execution modules. ≤
87. E The latest trend in make-to-stock is to assemble the final product in the distribution channel. This process is called Postponement. ≤
88. B The process (control) view integrates all the three views. By adopting the process view, the management can develop an architecture specifying all the functional modules required in an ERP package. ≤
89. D The time gap between the receipt of the order and the delivery of the product is called cycle time. ≤
TOP
≥
90. D Statement (I) is false, remaining statements are true about big bang approach Most organizations prefer phased implementation because the risks can be more easily controlled in this approach. ≤
TOP
≥
91. D Statement (I) is false because ERP uses the process view of the organization rather than function view that traditional enterprise software used. Whereas, remaining statements are true regarding Enterprise resource Planning (ERP). ≤
TOP
≥
92. D **Use-management tool:** It schedules jobs, monitors events, data output, backup and recovery. It manages the applications when they are being accessed by users. ≤
TOP
≥
Service management tools: These help the management monitor the performance of various ERP applications. These tools need to be powerful as they have to analyze thousands of transactions that occur simultaneously in an ERP system.
System administration tool: It manages the network and systems for ERP. It manages inventory and assets, configures software, modifies applications when needed, and distributes software.

93. D The first statement is false because SOA links all independent applications in a network, enabling the network to create custom composite applications. Whereas, the remaining statements are true regarding SOA architecture. [< TOP](#)
94. C As-is process study-states that existing processes of the companies are studied to identify the problem areas where process reengineering is desired. To-be process design-states that the new processes to be implemented in the organization are designed by the implementation team. Simulation states different department representatives run the business process on the system and report the problems they had encountered to implementation team. And this team discusses with the management in fine tuning and resolving the problems. Actual implementation states the system that is successful in the simulation process is deployed in entire organization, and runs in parallel with the existing processes for some time. Whereas, system analysis is not relevant. [< TOP](#)
95. E After the implementation of ERP, users play an important role. Their responsibility is in terms of gaining expertise in integrated IT and manual processes. They are responsible for improving response time and query searches. Users configure, maintain and upgrade the system. [< TOP](#)
96. A Tracking of customer behavior and grouping customers exhibiting similar behavior is possible through inference-based software. Rules-based software is used for personalization in case of specific products and services only. [< TOP](#)
97. C Second statement is a not a correct factor that contribute to enhancing the effectiveness of the architecture. E-CRM architecture should be able to track customer interactions consistently independent of location. The architecture has to be analyzed to see if it can track customer interactions irrespective of location. [< TOP](#)
98. A The basic purpose of software is to identify prospective customers, track their details and forwarding them to salespersons for required action. The software can be used to schedule sales calls, track order progress and record sales transactions. [< TOP](#)
99. B Customer data computing architecture; Business rules for coordinating interactions; Systems and processes that facilitate integration of legacy, analytic and operational CRM systems are the fundamental elements of E-CRM infrastructure. Whereas, attracting new customers is one of the important functions of CRM. [< TOP](#)
100. B A decision support system (DSS) helps in customer segmentation. A good DSS gathers detailed customer information and helps the organization in understanding their highly profitable customers. Help desk software is used to handle customers' queries and solve their problems efficiently. The software helps in verification of customer status, tracking specific tasks, maintaining history of inquiries and monitoring support level agreements. The field service software supports activities like scheduling and sending service personnel, managing logistics and inventory, and also handling contracts and accounting problems. [< TOP](#)

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