

**QP Code : 50182**

**(3 Hours)**

**[Total Marks : 100**

**Section I**

**Answer all the questions. Type the choice in the space provided at the right hand side corner for each question.**

**40 x 1 = 40**

- 1 Which of the following terms best describes data that were originally collected at an earlier time by a different person for a different purpose?
- a) Primary data
  - b) Secondary data
  - c) Experimental data
  - d) Field notes
- 2 A DNS translates a domain name into what ?
- a) Binary
  - b) Hex
  - c) IP
  - d) URL
- 3 Which of the following is the collection of data objects that are similar to one another within the same group?
- (a) Partitioning
  - (b) Grid
  - (c) Cluster
  - (d) Table
- 4 Software engineering aims at
- a) Reliable software
  - b) Cost effective software
  - c) Reliable and cost effective software
  - d) None of the above
- 5 One of the following is the demerit of the E-R model
- a) Gives a higher level of abstraction of the system
  - b) Can be generalized and specialized based on needs
  - c) Physical design derived from E-R Model may have some amount of

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ambiguities or inconsistency

d) Intuitive and helps in physical database creation

6

The transition between continuous values of the image function and its digital equivalent is called \_\_\_\_\_

a) Quantisation

b) Sampling

c) Rasterisation

d) None of the Mentioned

7

Acceptance testing is known as

a) Beta testing

b) Whitebox testing

c) Greybox testing

d) adHoc Testing

8

Which technique is based on compile-time program transformation for accessing remote data in a distributed-memory parallel system.

a) cache coherence scheme

b) computation migration

c) remote procedure call

d) message passing

9

The process of removing the deficiencies and loopholes in the data is called as

(a) Aggregation of data

(b) Extracting of data

(c) Cleaning up of data.

(d) Loading of data

10

Which is the first activity of the Continual Service Improvement (CSI) model?

a) Assess the customer's requirements

b) Understand the vision of the business

c) Identify what can be measured

d) Develop a plan for improvement

11

The four stages of the Deming Cycle are?

a) Plan, Assess, Check, Report

b) Plan, Do, Check, Act

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- c) Plan, Check, Revise, Improve
- d) Plan, Do, Act, Assess

12. In CRM, The purpose of retention is-

- a) To retain customers
- b) To retain employees
- c) To retain vendors
- d) All of the above

13. How do you represent "All dogs have tails".

- a)  $\forall x: \text{dog}(x) \rightarrow \text{tail}(x)$
- b)  $\forall x: \text{dog}(x) \rightarrow \text{tail}(y)$
- c)  $\forall x: \text{dog}(y) \rightarrow \text{tail}(x)$
- d)  $\forall x: \text{dog}(x) \rightarrow \text{tail}(x)$

14. How can the network capacity of a wireless network be improved?  
This can be done by :

- a) Increasing the number of cells.
- b) Decreasing the number of cells.
- c) Increasing the size of the cells.
- d) Increasing the number of mobile users in a cell.

15. What is the tool used in tasks such as zooming, shrinking, rotating, etc.?

- a) Sampling
- b) Interpolation
- c) Filters
- d) None of the Mentioned

16. Which of these is a process of extracting/removing the state of an object from a stream?

- a) Serialization
- b) Externalization
- c) File Filtering
- d) Deserialization

17. Which of the three are the measures of information security in embedded systems?

- a) Confidentiality, secrecy, integrity
- b) Confidentiality, integrity, availability
- c) Confidentiality, transparency, availability
- d) Integrity, transparency, availability

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- 18 Dynamic range of imaging system is a ratio where the upper limit is determined by
- a) Saturation
  - b) Noise
  - c) Brightness
  - d) Contrast
- 19 Quantitatively, spatial resolution cannot be represented in which of the following ways
- a) line pairs
  - b) pixels
  - c) dots
  - d) None of the Mentioned
- 20 LDAP stands for
- a) Large directory access protocol
  - b) Lightweight directory access protocol
  - c) Large data access protocol
  - d) Lightweight data access protocol
- 21 What type of web technology creates a secure and private connection between two computers
- a) Encryption
  - b) Secure and socket layer
  - c) Internet locked connections
  - d) Sheltered websites
- 22 UML depicts information system as a collection of
- a) Data
  - b) Information
  - c) Objects
  - d) Entities
- 23 Which of the following is not a class of information system applications?
- a) Database management system
  - b) Expert system
  - c) Office automation system
  - d) Management information system

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- 24 Why would a switch be used in a network in preference to a HUB ?
- a) To reduce the network traffic
  - b) To prevent the spread of all viruses
  - c) To connect a computer directly to the internet
  - d) To manage password security at the work station
- 25 The term associated with the processing of comparison speed is ?
- a) FFTS
  - b) MPG
  - c) MIPS
  - d) CPS
- 26 Mostly \_\_\_\_\_ is used in wireless LAN.
- a) time division multiplexing
  - b) orthogonal frequency division multiplexing
  - c) space division multiplexing
  - d) none of the mentioned
- 27 Bayesian classifiers is
- a) A class of learning algorithm that tries to find an optimum classification of a set of examples using the probabilistic theory.
  - b) Any mechanism employed by a learning system to constrain the search space of a hypothesis
  - c) An approach to the design of learning algorithms that is inspired by the fact that when people encounter new situations, they often explain them by reference to familiar experiences, adapting the explanations to fit the new situation.
  - d) None of these
- 28 Cluster is
- a) Group of similar objects that differ significantly from other objects
  - b) Operations on a database to transform or simplify data in order to prepare it for a machine-learning algorithm
  - c) Symbolic representation of facts or ideas from which information can potentially be extracted
  - d) None of these

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- 29 \_\_\_\_\_ describes a distribution model in which applications are hosted by a service provider and made available to users.
- a) Infrastructure-as-a-Service (IaaS)
  - b) Platform-as-a-Service (PaaS)
  - c) Software-as-a-Service (SaaS)
  - d) Cloud service
- 30 Which of the following is essential component of communication cycle?
- a) A message
  - b) An interpreter
  - c) An email account
  - d) An internet connection
- 31 What is state space?
- (a) The whole problem
  - (b) Your Definition to a problem
  - (c) Problem you design
  - (d) Representing your problem with variable and parameter
- 32 Retesting the entire application after a change has been made is called
- a) Full Regression Testing
  - b) Regional Regression
  - c) Unit Regression
  - d) Retesting
- 33 Processes on the remote systems are identified by
- a) host ID
  - b) host name and identifier
  - c) identifier
  - d) process ID
- 34 Internet provides \_\_\_\_\_ for remote login.
- a) telnet
  - b) http
  - c) ftp
  - d) RPC
- 35 What is cipher-block chaining ?

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- a) Data is logically 'ANDed' with previous block
- b) Data is logically 'ORed' with previous block
- c) Data is logically 'XORed' with previous block
- d) none of the mentioned

36 \_\_\_\_\_ describes a cloud service that can only be accessed by a limited amount of people.

- a) Data center
- b) Private cloud
- c) Virtualization
- d) Public cloud

37 \_\_\_\_\_ is the feature of cloud computing that allows the service to change in size or volume in order to meet a user's needs.

- a) Scalability
- b) Virtualization
- c) Security
- d) Cost-savings

38 Which of following is not a stream cipher?

- a) two fish
- b) RC5
- c) RC4
- d) TBONE

39 In the SETUP state :

- a) the server is setup
- b) the client is setup
- c) the server allocates resources for the client session
- d) the client sends requests to the server

40 Which of the below is not an iPhone 4 feature?

- a) 4G
- b) Front facing camera
- c) HD recording
- d) Multitasking

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**Section II**

Attempt any three (03) questions from the following.

3 x 10 = 30

- Q1 What are the most important areas where Artificial Intelligence is applied? What do you understand by state space search in Artificial Intelligence?
- Q2 Describe the reasons for the emergence and increasing use of XML databases and discuss why they may be used as an alternative to a Relational database.
- Q3 Why is power optimization an important issue in embedded system design? Enumerate various factors on which it depends.
- Q4 Explain the legal, ethical and professional issues related with Information Security
- Q5 Discuss in brief virtual auction. Explain the differences between virtual auction and reverse auction.

**Section III**

Attempt any two (02) questions from the following.

2 x 15 = 30

- Q1 Describe how authentication is performed in PGP
- Q2 Explain different phases of embedded product development life cycle (EDLC)
- Q3 What are customer relationship management systems? How do they benefit business?
- Q4 Define Electronic Data Interchange. What are the components of Electronic Data Interchange?