

Roll No. 209472.....

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BCA-202

B.C.A Second Year Examination, 2014

B.C.A.

PAPER-II

(Database Management Systems)

Maximum Marks : 100

SECTION-A

खण्ड-अ

Marks : 50

Time : 1½ Hours

Candidates are required to first answer the Section-A (Multiple Choice Questions) by marking correct choice on OMR Sheet in prescribed time. All questions are compulsory and carry equal marks. There is no negative marking for wrong answers.

सर्वप्रथम खण्ड-अ के सभी वस्तुनिष्ठ प्रश्नों के उत्तर ओ.एम.आर. शीट में परीक्षार्थियों को निश्चित समय में देने हैं। सभी प्रश्न अनिवार्य एवं समान अंक के हैं। गलत उत्तर का ऋणात्मक मूल्यांकन नहीं किया जाएगा।

SECTION-B

खण्ड-ब

Marks : 50

Time : 1½ Hours

After depositing OMR Sheet of Section-A with invigilator, the candidates are required to answer **one** question from each Unit (each question in 250 words) in a separate Answer-book provided to them. All questions carry equal marks.

खण्ड-अ की ओ.एम.आर. शीट पर्यवेक्षक को जमा कराने के पश्चात परीक्षार्थी खण्ड-ब की प्रत्येक इकाई से एक प्रश्न का उत्तर दी गई उत्तर-पुस्तिका में देंगे। प्रत्येक प्रश्न का उत्तर लगभग 250 शब्दों में दिया जाना है एवं सभी प्रश्नों के अंक समान हैं।

BCA-202

P. T. O.

SECTION-A

खण्ड-अ

Marks : 5

Time : 1½ Hour

Candidates are required to first answer the Section-A (Multiple Choice Questions) by marking correct choice on OMR Sheet in prescribed time. All questions are compulsory and carry equal marks. There is no negative marking for wrong answers.

सर्वप्रथम खण्ड-अ के सभी वस्तुनिष्ठ प्रश्नों के उत्तर ओ.एम.आर. शीट में परीक्षार्थियों को निर्दिष्ट समय में देने हैं। सभी प्रश्न अनिवार्य एवं समान अंक के हैं। गलत उत्तर का ऋणात्मक मूल्यांकन नहीं किया जाएगा।

UNIT-I

1. The view of total Database content is
(A) Conceptual view
(B) Internal view
(C) External view
(D) Physical view
2. DML is provided for
(A) Description of logical structure of Database
(B) Addition of New Structures in the Database
(C) Manipulation and Processing of Database
(D) Definition of Physical Structure of Database

3. Architecture of the Database can be viewed as
(A) Two levels
(B) Four levels
(C) Three levels
(D) One level
4. The Database scheme is written in
(A) HLL
(B) DML
(C) DDL
(D) DCL
5. In an E-R diagram, attributes are represented by
(A) Rectangle
(B) Square
(C) Ellipse
(D) Triangle

A subschema expresses

- (A) Logical view
- (B) Physical view
- (C) External view
- (D) All of the above

Data independence means

- (A) Data is defined separately and not included in programs
- (B) Programs are not dependent on the physical attributes of data
- (C) Programs are not dependent on the Logical attributes of Data
- (D) Both (B) and (C)

Which of the following is a Database Administrator's function?

- (A) Database design
- (B) Backing up Database
- (C) Performance Monitoring
- (D) All of the above

The Database environment has all of the following components, except

- (A) Users
- (B) Separate files
- (C) Database
- (D) Database Administrator

10. An advantage of the database management approach is

- (A) Data is dependent on Programs
- (B) Data redundancy increases
- (C) Data is integrated and can be accessed by Multiple programs
- (D) None of the above

UNIT-II

11. In a relational model, relations are termed as

- (A) Tuples
- (B) Attributes
- (C) Tables
- (D) Rows

12. The RDBMS terminology for a row is

- (A) Tuple
- (B) Relation
- (C) Attribute
- (D) Degree

13. In case of entity integrity, the primary key may be

- (A) Not Null
- (B) Null
- (C) Both Null and Not Null
- (D) Any value

14. An entity set that does not have sufficient attributes to form a primary key is
- (A) Strong entity set
 - (B) Weak entity set
 - (C) Simple entity set
 - (D) Primary entity set
15. Key to represent relationship between tables is called
- (A) Primary key
 - (B) Secondary key
 - (C) Foreign key
 - (D) None of these
16. In a relation
- (A) Ordering of rows is immaterial
 - (B) No two rows are identical
 - (C) (A) and (B) both are true
 - (D) None of these
17. A set of possible data values is called
- (A) Attribute
 - (B) Degree
 - (C) Tuple
 - (D) Domain
18. A primary key if combined with a foreign key creates
- (A) Parent-Child relationship between the tables that connect them
 - (B) Many to many relationship between the tables that connect them
 - (C) Network model between the tables that connect them
 - (D) None of the above
19. The rule that a value of a foreign key must appear as a value of some specific table is called
- (A) Referential constraint
 - (B) Index
 - (C) Integrity constraint
 - (D) Functional dependency
20. Which of the following are the properties of entities?
- (A) Groups
 - (B) Table
 - (C) Attributes
 - (D) Switchboards

UNIT-III

21. A DBMS query language is designed to
- (A) Support end users who use English like commands
 - (B) Support in the development of Complex application software
 - (C) Specify the structure of a Database
 - (D) All of the above

22. The language which has recently become the defacto standard for interfacing application programs with relational database system is
- (A) Oracle
 - (B) SQL
 - (C) DBase
 - (D) 4GL
23. Count function in SQL returns the number of
- (A) Values
 - (B) District values
 - (C) Groups
 - (D) Columns
24. The statement in SQL which allows to change the definition of a table is
- (A) alter
 - (B) update
 - (C) create
 - (D) select
25. NULL is
- (A) the same as 0 for integer
 - (B) the same as blank for character
 - (C) the same as 0 for integer and blank for character
 - (D) Not a value
26. Which of the following is a valid SQL type?
- (A) Character
 - (B) Numeric
 - (C) Float
 - (D) All of the above
27. Which of the following is a Comparison operator in SQL?
- (A) =
 - (B) Like
 - (C) Between
 - (D) All of the above
28. Which of the following database object does not physically exist?
- (A) Base Table
 - (B) Index
 - (C) View
 - (D) None of these
29. A File manipulation command that extracts some of the records from file is called
- (A) Select
 - (B) Project
 - (C) Join
 - (D) Product

30. A table joined with itself is called

- (A) Join
- (B) Self-join
- (C) Outer join
- (D) Equijoin

UNIT-IV

31. In a hierarchical model records are organised as

- (A) Graph
- (B) List
- (C) Links
- (D) Tree

32. Set concept is used in

- (A) Network model
- (B) Hierarchical model
- (C) Relational model
- (D) None of these

33. Which of the following is record based Logical model?

- (A) Network model
- (B) Object oriented model
- (C) E-R model
- (D) None of these

34. A top-to-bottom relationship among the items in a database is established by a

- (A) Hierarchical schema
- (B) Network schema
- (C) Relational schema
- (D) All of the above

35. is a schema representing the design of a Network database.

- (A) E-R diagram
- (B) Data Structure Diagram
- (C) Flow Chart
- (D) None of these

36. The two most frequently used DBTG commands are

- (A) Find and delete
- (B) Find and update
- (C) Find and get
- (D) Get and update

37. is used to add new record to the Network Database

- (A) Insert
- (B) Add
- (C) New
- (D) Store

38. In Hierarchical database, a buffer storage area that contains record templates, currency pointers and status flag is known as

- (A) Program Work Area
- (B) Schema
- (C) Program Storage Area
- (D) None of these

39. To modify an existing record in hierarchical model, command is used.

- (A) Modify
- (B) Replace
- (C) Update
- (D) Change

40. DBTG stands for

- (A) Database Task Group
- (B) Database Transfer Group
- (C) Database Tier Group
- (D) Database Tier Gang

UNIT-V

41. The method in which records are physically stored in a specified order according to a key field in each record is

- (A) Hash
- (B) Direct
- (C) Sequential
- (D) All of the above

42. The file organisation that provides very fast access to any arbitrary record of a file is

- (A) Ordered file
- (B) Unordered file
- (C) Hashed file
- (D) B-tree

43. A B-tree of order m has maximum of children.

- (A) m
- (B) $m + 1$
- (C) $m - 1$
- (D) $m/2$

44. A clustering index is defined on the fields which are of type

- (A) Non-key and ordering
- (B) Non-key and Non-ordering
- (C) Key and ordering
- (D) Key and Non-ordering

45. In B-tree, the number of keys in each node is than the number of its children.

- (A) One less
- (B) Same
- (C) One More
- (D) Half

46. Which is the best file organisation when data is frequently added or deleted from a file?
- (A) Sequential
 - (B) Direct
 - (C) Index sequential
 - (D) None of the above
47. An index ordered in the same way as the data file, which is sequentially ordered according to a key?
- (A) Sparse Index
 - (B) Dense Index
 - (C) Primary Index
 - (D) Secondary Index
48. Direct files are also called
- (A) Hash files
 - (B) Random files
 - (C) Both (A) and (B)
 - (D) None of the above
49. The overhead involved in the maintenance and use of secondary indexes include
- (A) Adding an index record to every secondary index whenever a tuple is inserted into relation
 - (B) Updating secondary index when the corresponding tuple in the relation is updated
 - (C) The increase in disk space needed to store the secondary index
 - (D) All of the above
50. Which among the following characterizes dense index?
- (A) One index record for every search-key value
 - (B) Faster access but higher overhead
 - (C) Both (A) and (B)
 - (D) None of the above