

Dr. Babasaheb Ambedkar Open University

Term End Examination January - 2015

Course	: BCA	Numerical Code: 0065
Subject Code	: BCA – 201	Numerical Code: 0556
Subject	: Data Base Management System	Total Marks : 70
Date	: 20/01/2015	Time : 03.00 to 06.00

Section A (30)**Answer the following (any three)**

1. What is DBMS? Explain advantages and Disadvantages of DBMS.
2. List out types of Normalization and explain 1NF with example.
3. Explain types of Transaction in detail.
4. Explain 3-schema architecture in detail with necessary figures.
5. Why password protection is needed?

Section B (20)**Answer the following (any four)**

1. Comparison between file processing and DBMS.
2. Explain commit, rollback and save point.
3. Explain ER diagram of store System.
4. What are data models? List name of data models and explain any one type of data model.
5. Explain limitation of data ware housing.
6. Comparison between RDBMS and OODBMS.

Section C**(A) Choose correct answer. (10)**

- 1 Full name of DDL is _____.
(A) Data Duration (B) Data Define (C) Data Definition (D) None of this
- 2 Which of the following is not data model?
(A) Relational (B) LAN (C) Network (D) All of above
- 3 Which is level of abstraction?
(A) View level (B) Create level (C) Relational level (D) None level
- 4 Which of the following is not a DDL command?
(A) CREATE (B) DROP (C) ALTER (D) SELECT
- 5 More than one column making the primary key is known as
(A) Foreign key (B) Candidate key (C) Composite key (D) Null key
- 6 Which data type is type of character data type?
(A) LONG (B) CHAR (C) VARCHAR2 (D) All of above
- 7 _____ Consistency enables the multiple users to update, select and delete from same table.
(A) Read-Consistency (B) Both of them (C) Write-Consistency (D) None of them
- 8 Which is not a type of lock?
(A) Read-lock (B) Null lock (C) Write-lock (D) Not null lock

- 9 Data warehouse is _____.
(A) Subject oriented (B) Volatile (C) Inconsistence (D) Non-integrated
- 10 Who gives basic rules of DBMS?
(A) E.F.Codd (B) Graham bell (C) Einstein (D) None of above

(B) Give Answer in One/Two Sentence.

(10)

1. Define DBMS.
 2. Define Attribute.
 3. Define Entity set.
 4. Write any two names of built-in function access.
 5. Is a symbol of _____ in ER diagram?
 6. Which command is used to control access to data? (GRANT/COMMIT)
 7. Query used retrieve data using SELECT command. (True/False)
 8. Write syntax to create table in SQL.
 9. What is Function Dependency?
 10. Give any two examples of database system application.
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Term End Examination January - 2015

Course	: BCA	Numerical Code: 0065
Subject Code	: BCA – 202	Numerical Code: 0559
Subject	: Data Structure using C	Total Marks : 70
Date	: 21/01/2015	Time : 03.00 to 06.00

Section A**Answer the following (Any Three) (30)**

1. Explain types of analysis.
2. Explain row major and column major order implementation.
3. Give definition of stack and explain PUSH and POP function.
4. Explain circular Queue and write algorithm for insertion and deletion in circular queue.
5. Explain link list operation.

Section B**Answer the following (Any Four) (20)**

1. Explain application of stack.
2. Difference between single link list and doubly link list.
3. List out tree traverse method and explain any one.
4. Explain types of graph with figure.
5. Explain bubble sort.
6. Explain prim's algorithm.

Section C**Answer the following (Any Ten)****(A) Choose correct answer. (10)**

- 1 Which is not user define data type.
(A) Array (B) Structure (C) Union (D) Double
- 2 Sparse array's entries are mostly _____.
(A) Zero (B) All of above (C) Null (D) Default
- 3 $a + b * c$ is in the form of _____.
(A) Infix (B) Prefix (C) Postfix (D) None of above
- 4 The Linked list also contains a list pointer variable called _____.
(A) End (B) Start (C) Save (D) Null
- 5 In circular linked list, all nodes are linked in a _____ without using null.
(A) Continuous circle (B) Non continuous circle
(C) Continuous line (D) Non continuous circle
- 6 Full form of DFS _____.
(A) Data flow search (B) Data file system
(C) Depth first search (D) Data file service
- 7 Which of the following is not a method of building hash function?
(A) Truncation (B) Transaction (C) Folding (D) Mid-square
- 8 Complexity of insertion sort.
(A) $O(n^2)$ (B) $O(n)$ (C) $\log n$ (D) $\log n^2$

- 9 Among following expression which is having the highest priority.
(A) ^ (B) + (C) - (D) *
- 10 Which is not a liner data structure?
(A) Stack (B) Queue (C) Tree (D) Linked list

(B) Give Answer in One/Two Sentence.

(10)

1. Define data.
 2. Convert following infix expression to postfix.
 $(a + b) * (c + d)$
 3. Give full form of LIFO.
 4. In circular queue if the front = rear, the circular queue will be consider as empty
(True/False).
 5. Define overflow for link list.
 6. A graph is a pair of (V, E), where V = _____, E = _____.
 7. Quick sort method is also known as partition exchange sort. (True/False)
 8. Give full form of LB and UB.
 9. Give types of hashing.
 10. Give full form of BFS.
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Term End Examination January-2015

Course	: BCA	Numerical Code: 0065
Subject Code	: BCA-203	Numerical Code: 0562
Subject	: Financial Accounting Management	Total Marks : 70
Date	: 22/01/2015	Time : 03.00 to 06.00

Section – A

Attempt any three of the following (30)

1. Financial and management function.
2. Explain debenture capital with advantages and disadvantages.
3. Explain trading on equity with example.
4. Explain features of computer accounting system.
5. Prepare a bank reconciliation statement from the following data as on 30/11/1988
 - a. Balance as per pass book on 31/11/1988 overdrawn Rs. 9204
 - b. Cheques drawn on 30/11/1988 but not cleared till Dec. 1988, Rs. 3225, Rs. 745 and Rs. 926
 - c. Bank overdraft interest charged on 28/11/19 not entered in cash book Rs. 1610.
 - d. Cheques received on 29/11/1988 entered in cash book but not deposited to bank till 3rd December, 198 Rs. 11322 and Rs. 1730
 - e. Cheque reviewed amounting to Rs. 35 entered in the cash book twice.
 - f. Bills receivable due on 29/11/1988 was sent to bank for collection on 28/11/88 and was entered in cash book forthwith but the proceeds were not credited in bank pass book till 3rd Dec. 1988 Rs. 290.
 - g. Cheque deposited on 30th nov. 1988 dishonoured but the entry there of was not made in the cash book Rs. 1890

Section – B

Attempt any Five in brief (20)

1. Functions of accounting
2. Wealth maximization
3. Warrants
4. Capital expenditure
5. Estimation cash flow for new project
6. Profit and loss account items debit side

Section C

(A) Choose correct answer. (10)

- 1 Book keeping is the art of recording business transaction in a systematic manner given by
 - a) A. H. Rose kempff
 - b) L. C. Copper
 - c) R. N. Crater
 - d) Hoagland
- 2 Financial management may be considered to be the management of the finance function.
 - a) Hoagland
 - b) Paul G. Husingd
 - c) Raymond chambers
 - d) Archer and ambrosia
- 3 The details of changes in financial position of a concern between two balance sheet date is called.
 - a) Cash flow analysis
 - b) Ratio analysis
 - c) Capital budgeting techniques
 - d) Fun flow analysis
- 4 The purpose to buy a fixed number of ordinary shares at a particular price during a specified

- period is called.
- a) convertible b) warrants c) Term loans d) Equity capital
- 5 The rate of interest payable on debt capital is obtained through the issue of debenture is called.
- a) Cost of preferred capital b) Cost of realized earnings
c) Cost of equity d) Cost of debt
- 6 A summary of various ledger balances is called.
- a) Trial balance b) Suspense account c) Capital structuring d) Present value
- 7 All transaction sales on credit is called.
- a) Purchase book b) Sales book c) Purchase return book d) sales return book
- 8 The index number of the movements of financial figures reported in the financial statements for more than one accounting period is called.
- a) Common size statement b) Trend ratios c) Cash flow analysis d) Ratio analysis
- 9 A long term promissory note for raising loan capital is called.
- a) Debenture b) Preference share capital c) Term loan d) Warrants
- 10 The dividend expected by its investors is called.
- a) Cost of realized earnings b) Cost of debt
c) Cost of preferred capital d) Capital asset pricing model

(B) Do as directed.

(10)

1. Full form of AAA
 2. Full form of APB
 3. Give full form of AICPA
 4. Give full form of NCADs
 5. Give full form of FCDs
 6. Give full form of CAPM
 7. Give full form of WACC
 8. Give full form of MCC
 9. Give full form of EPS
 10. Give full form of APV
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Term End Examination January - 2015

Course	: BCA	Numerical Code: 0065
Subject Code	: BCA-204	Numerical Code: 0564
Subject	: Mathematics	Total Marks : 70
Date	: 23/01/2015	Time : 03.00 to 06.00

Section – A**Attempt any three of the following (30)**

- Find equation of the circle through $(-1, -3)$ & touching the line $4x + 3y - 12 = 0$ at $(3, 0)$.
- Solve the equation $\begin{vmatrix} x+2 & 2x+3 & 3x+4 \\ 2x+3 & 3x+4 & 4x+5 \\ 3x+5 & 5x+8 & 10x+17 \end{vmatrix} = 0$
- For what values of a, b, c $\begin{bmatrix} 0 & 2b & c \\ a & b & -c \\ a & -b & c \end{bmatrix}$ is orthogonal.
- Prove that
 - $nPr = \frac{n!}{(n-r)!}$
 - $nCr = nCn - r$
 - $nCr + nCr - 1 = n + 1C_r$
- Find standard eqⁿ of hyperbola

Section – B**Do as directed (any 4) (20)**

- If $A \subseteq B$ & $B \subseteq C$ then $A \times B \subseteq B \times C$ Prove this.
- Examine for consistency

$$\begin{aligned} x + y + z &= 1 \\ x + 2y + 4z &= 2 \\ x + 4y + 10z &= 4 \end{aligned}$$
- Find center and radius of the circle $x^2 + y^2 + 6x - 4y + 4 = 0$
- If $A = \left\{ \frac{x}{x} \leq 7, x \in N \right\}$ & $B = \left\{ x \in \frac{N}{2} < x \leq 5 \right\}$ Prove that $A \cup B = B \cup A = A$ and $A \cap B = B \cap A = B$ find $A - B$ and $B - A$
- Without expanding the determinant, show that $\begin{vmatrix} 0 & b & -c \\ -b & 0 & -a \\ c & -a & 0 \end{vmatrix} = 0$
- How many different arrangements can be made using all letters of the word 'ENGLISH'?
 - How many of these begin & end with a Consonant?
 - In how many of these, vowels occupy even places?
 - How many begin with vowel & end with Consonant?

Section – C**(A) Answer in Short. (10)**

- If A and B are two sets then $\overline{(A \cup B)} = \bar{B} \cap \bar{A}$. (True or False)
- Give two examples of infinite sets.
- State properties of binary operations.

4. State standard equation of Ellipse.
5. What can be the value of angle between two lines if they have same slope?

(B) Select an appropriate answer:

(10)

1. If m_1 & m_2 are slopes of two lines and $m_1 m_2 = -1$ then lines are
 (A) Parallel (B) Perpendicular (C) Coincident (D) A & C both
2. What is an eccentricity of ellipse whose latus rectum is one half of its major axis.
 (A) $\frac{1}{2}$ (B) 2 (C) $\frac{1}{\sqrt{2}}$ (D) None of the above
3. Inverse of a matrix A is defined
 (A) $\frac{1}{A}$ (B) $adj A$ (C) $\frac{adj A}{A}$ (D) $\frac{1}{|A|} adj A$
4. What can be the value of ${}^{15}C_{10} + {}^{15}C_9 + {}^{16}C_9 + {}^{17}C_{11} + {}^{18}C_{12}$
 (A) ${}^{18}C_{12}$ (B) ${}^{18}C_{10}$ (C) ${}^{15}C_{12}$ (D) ${}^{19}C_{12}$
5. If A is a subset of B and C is a superset of B then A is a _____ C.
 (A) Subset (B) Superset (C) Equal Set (D) None of the above

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Term End Examination January-2015

Course	: BCA	Numerical Code: 0065
Subject Code	: BCA – 205	Numerical Code: 0566
Subject	: Introduction to Multimedia System and its Applications	
		Total Marks : 70
Date	: 24/01/2015	Time : 03.00 to 06.00

Section A (30)

Attempt any Three of the following:

1. List different graphics file format and explain its usage.
2. Explain www in detail.
3. What are the input devices used in multimedia system? Explain in brief.
4. What is multimedia Information system? Give schematic representation of multimedia information flow.
5. Explain role of multimedia in different areas.

Section B (20)

Write short notes on any Four.

1. What are the Desirable Features for a Multimedia system?
2. Differentiate Traditional animation and computer animation.
3. Define: Virtual Reality list the applications of virtual Reality.
4. Write a short note on: MPEG cards and MPEG software.
5. Write a short note on : Interactive media.
6. What is fire wire?

Section C

(A) Choose correct answer. (10)

- 1 MIDI stands for:
(A) Musical Instrument digital interface (B) Musical instrument digital instruction
(C) MP3 instrument digital interface (D) Multimedia instrument digital Information
- 2 Which of following can be content of multimedia file:
(A) Text (B) Audio (C) Images (D) All of the above
- 3 Which graphics file format is used in printing to non-post script printer:
(A) GIF (B) EPS (C) TIFF (D) PICT
- 4 Which animation software can easily create .SWF file.
(A) Adobe Flash (B) 3D Studio Max (C) Maya (D) Paint
- 5 Video is represented as a series of image formally known as:
(A) Pics (B) Shots (C) Frames (D) Snaps
- 6 One of the disadvantages of multimedia is:
(A) Usability (B) Cost (C) Relativity (D) Adaptively
- 7 A _____ can be added to concept of a file to go to variety of location like some document, web address, email address etc.
(A) Slidmlink (B) Toollink (C) Hyperlink (D) Menulink
- 8 A _____ displays a list of commands and usually appears in the toolbar at the top of the screen.
(A) View (B) Menu (C) Kit (D) List

- 9 In multimedia CBT stands for:
(A) Cathode base tube (B) Computer based testing
(C) Computer based training (D) Creative bitmap Ttf
- 10 Which of the following is not an image format?
(A) .BMP (B) .PCX (C) .GIF (D) .AUX

(B) Do as directed. (All Compulsory)

(10)

1. [True/False]: Animation can be used to emphasize the three-dimensional nature of objects.
 2. What is Mbone used for?
 3. Write common vector formats used in multimedia.
 4. What is Pixar?
 5. Define: Hypermedia.
 6. Digitizing tablet is a _____ input device. [character, pointing]
 7. [True/False]: JPEG can compress images from 2:1 to 160:1 using symmetrical compression algorithm.
 8. Give full form of MMX.
 9. Name any three vector drawing programme.
 10. [True/False]: Multimedia file contains text, images, audio, database etc.
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