

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)**B.C.A. Sem-II : WINTER: 2025****SUBJECT: DATA STRUCTURES USING C**Day : Thursday
Date : 04/12/2025**W-26280-2025**Time : 10:00 AM-01:00 PM
Max. Marks : 60**N.B.**

- 1) Section- I Question No.1 is **COMPULSORY**. Each question carries **01** mark.
- 2) Attempt any **FIVE** questions from Section – II. Each question carries **08** marks.
- 3) Answer any **ONE** questions from Section–III. Each question carries **10** marks.
- 4) Answer to Section – I, Section – II and Section – III should be written in the **SAME** answer book.

SECTION – I

Q.1	MCQ	CO	BL
1)	What is an Abstract Data Type? a) A primitive data type b) A type of array c) A model for data structures d) A sorting method	1	Understand
2)	Which sorting algorithm has the best average time complexity among the following? a) Bubble sort b) Selection sort c) Insertion sort d) Quick sort	2	Apply
3)	What is the time complexity of Binary Search in average case? a) $O(n)$ b) $O(\log n)$ c) $O(n \log n)$ d) $O(1)$	1	Understand
4)	Which data structure allows insertion and deletion from one end only? a) Array b) Stack c) Queue d) Linked List	2	Apply
5)	What is the default mode of fopen() if not specified? a) w b) r c) a d) wb	3	Analyze
6)	Which traversal method is used in expression evaluation? a) Inorder b) Preorder c) Postorder d) Level Order	3	Evaluate
7)	In a doubly linked list, each node contains how many pointers? a) 1 b) 2 c) 3 d) 0	2	Understand

P.T.O.

		CO	BL
8)	What is the function of fseek()?	1	Understand
	a) Reads a file		
	b) Writes to a file		
	c) Moves file pointer		
	d) Closes a file		
9)	Which of the following is not a linear data structure?	3	Evaluate
	a) Array		
	b) Stack		
	c) Queue		
	d) Tree		
10)	What is the first step in the Quick sort algorithm?	2	Apply
	a) Sort the left half		
	b) Sort the right half		
	c) Partition the array		
	d) Merge the arrays		

SECTION – II

Q.2	Explain the applications of different types of data structures in real life with suitable examples.	(08)	CO1	Understand
Q.3	Write and explain the algorithm for Insertion Sort. Compare its time complexity with Selection Sort.	(08)	CO1	Understand
Q.4	What is a doubly linked list? Explain its structure and operations with diagrams.	(08)	CO2	Apply
Q.5	Define Stack. Explain stack operations with array implementation.	(08)	CO3	
Q.6	Explain different types of binary trees with suitable examples.	(08)	CO3	
Q.7	Write short notes on any TWO:	(08)		
	a) Abstract Data Type (ADT)		CO1	Understand
	b) Applications of Linked List		CO2	Apply
	c) File modes in C		CO4	Analyze

SECTION – III

Q.8	What is file handling? Explain different types of file operations and file management functions with syntax.	(10)	CO	BL
			CO4	Analyze
Q.9	Define Queue. Explain its array and linked list implementation with diagrams.	(10)	CO3	Analyze

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BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)

B.C.A. Sem-II : WINTER: 2025

SUBJECT: FINANCIAL ACCOUNTING

Day : Tuesday

Date : 02/12/2025

W-26281-2025

Time : 10:00 AM-01:00 PM

Max. Marks : 60

NB :

1. Answers to Section I, II and III should be written in same answer book.
2. Section -I (MCQ) all sub-questions of Q. No. 1 are COMPULSORY, write the sub-question no. and the chosen alternative (eg. 1b, 2c) in the answer book.
3. Section-I (MCQ) is of 10 marks and Section-II and onwards are of 50 marks.

SECTION - I

Q. 1 MCQs

- 1) Bookkeeping is primarily concerned with: (1)
 - A) Preparing financial statements
 - B) Analyzing financial data
 - C) Recording financial transactions
 - D) Auditing accounts
- 2) Which one is NOT a branch of accounting? (1)
 - A) Financial accounting
 - B) Cost accounting
 - C) Managerial accounting
 - D) Statistical accounting
- 3) The process of transferring journal entries to the ledger is known as: (1)
 - A) Recording
 - B) Posting
 - C) Transferring
 - D) Balancing
- 4) Personal accounts follow which rule? (1)
 - A) Debit what comes in, credit what goes out
 - B) Debit the receiver, credit the giver
 - C) Debit expenses, credit incomes
 - D) Debit assets, credit liabilities
- 5) Petty cash book is used for: (1)
 - A) Recording credit purchases
 - B) Recording major expenses
 - C) Small and recurring expenses
 - D) Recording all transactions
- 6) Which of these columns is NOT in a simple cash book? (1)
 - A) Date
 - B) Particulars
 - C) Discount
 - D) Ledger Folio

- 7) The balance sheet shows: (1)
A) Expenses
B) Revenues
C) Assets and liabilities
D) Net profit
- 8) Net profit is transferred to: (1)
A) Capital account
B) Trading account
C) Assets side of balance sheet
D) Cash book
- 9) Which software is commonly used for accounting automation? (1)
A) Excel
B) SAP
C) Tally
D) Oracle
- 10) Tally allows which of the following? (1)
A) Manual entry only
B) Posting only journal entries
C) Automatic update of multiple books
D) Only payroll management

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BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)

B.C.A. Sem-II : WINTER: 2025

SUBJECT: FINANCIAL ACCOUNTING

Day : Tuesday

Date : 02/12/2025

W-26281-2025

Time : 10:00 AM-01:00 PM

Max. Marks : 60

NB :

1. Figures to the right indicate FULL marks.
2. Section – III - Attempt any ONE question. Each questions carries 10 marks.
3. Section – II - Attempt any FIVE questions. Each questions carries 08 marks.
4. Use of simple non-programmable calculator is allowed.

SECTION - II

- Q. 2 Discuss the various accounting concepts (8)
- Q. 3 What is a Trial Balance? Discuss its significance and the steps involved in its preparation. (8)
- Q. 4 What are accounting packages? Describe the features and advantages of using software like Tally in accounting. (8)
- Q. 5 A company purchases equipment for ₹2,50,000 on 1st January 2024. The equipment has an estimated useful life of 8 years with a residual value of ₹10,000. Company uses the straight line method of depreciation. Financial Year of the company ends on 31st March every year. (8)
1. Calculate the annual depreciation expense.
 2. Prepare Machinery and Depreciation Account for the first 4 years.
- Q. 6 The following transactions relate to M/s Kapoor Traders for the month of June. Record the transactions in the appropriate subsidiary books. (8)
1. Purchased goods on credit from Sharma & Co. ₹50,000.
 2. Sold goods on credit to Gupta & Sons ₹65,000.
 3. Purchased furniture on credit from Furniture World ₹12,000.
 4. Returned goods worth ₹5,000 to Sharma & Co.
 5. Sold goods on credit to Verma Enterprises ₹30,000.
 6. Received goods returned from Gupta & Sons ₹3,000
- Q. 7 Attempt ANY TWO of the following: (Short Answer) (4x2)
- a) Difference between Bookkeeping and Financial Accounting
 - b) Depreciation: Meaning and Objectives
 - c) Limitations of Financial Accounting

SECTION - III

Q. 8

Journalize the transaction of Deepak for April 2024

(10)

Date	Particulars
01/04/2024	Deepak began business with Cash ₹ 2,00,000
02/04/2024	Deposited to bank ₹ 30,000
03/04/2024	Bought goods for cash ₹ 70,000
04/04/2024	Withdrew cash from bank for office use ₹ 20,000
13/04/2024	Purchased goods from Rubin on Credit ₹ 32,500
20/04/2024	Paid Rent ₹ 10,000
24/04/2024	Paid Salary ₹ 5,000
28/04/2024	Received commission ₹ 7,000
29/04/2024	Sold goods for cash ₹ 15,000
30/04/2024	Sold goods to Seema ₹ 50,000

Q. 9

Prepare Final Accounts of a Sole Proprietor from the following Trial Balance of Ms. Neha as on 31st March 2024, prepare Trading and Profit & Loss Account for the year ended 31st March 2024 and Balance Sheet as on that date. (10)

Trial Balance of Ms. Neha as on 31st March 2024

Particulars	Debit (₹)	Credit (₹)
Capital		1,50,000
Drawings	12,000	
Sales		2,80,000
Purchases	1,60,000	
Wages	25,000	
Salaries	18,000	
Rent and taxes	8,000	
Insurance Premium	3,000	
Carriage Inward	5,000	
Carriage Outward	2,500	
Sundry Debtors	40,000	
Sundry Creditors		5,500
Furniture	20,000	
Machinery	90,000	
Cash at Bank	22,000	
Bank Charges	30,000	
Total	4,35,500	4,35,500

Adjustments:

1. Rent outstanding ₹2,000
2. Insurance premium prepaid ₹500
3. Depreciate Furniture by 10% and Machinery by 15%
4. Create Provision for Doubtful Debts at 5% on Debtors

021225-m-iom-kolhapur

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)

B.C.A. Sem-II : WINTER: 2025

SUBJECT: WEB DEVELOPMENT TECHNOLOGY

Day : Friday

Date : 28/11/2025

W-26278-2025

Time : 10:00 AM-01:00 PM

Max. Marks : 60

N.B.:

- 1) Q.1 is **COMPULSORY**.
- 2) Section – I (MCQ type) should be attempted in **SEPARATE** OMR sheet and will be collected within first 20 minutes.
- 3) Attempt any **FIVE** questions from Section. II. Each questions carries 08 marks.
- 4) Attempt any **ONE** question from Section. III. Each questions carries 10 marks.
- 5) Figures to the right indicate **FULL** marks.
- 6) Answers to Section II and Section III should be written in **SAME** answer book.

SECTION – I

Q.1 MCQ's Questions:

- 1) Which among these is not a web browser?
 - a) ☐ WWW
 - b) ☐ Chrome
 - c) ☐ Opera
 - d) ☐ Netsurf
- 2) Web hosting based on type of server are _____
 - a) ☐ UNIX WINDOWS DOS
 - b) ☐ Dedicated hosting shared hosting VPS hosting
 - c) ☐ Server webserver web master
 - d) ☐ Web hosting email hosting script hosting
- 3) What is typically configured in the "Home page setting" of a website?
 - a) ☐ The contact form settings
 - b) ☐ The design and layout of the homepage, including features content
 - c) ☐ The colour scheme of the website
 - d) ☐ The navigation bar structure
- 4) What is role of the "Site icon" in the site configuration?
 - a) ☐ It is displayed in the footer of the website
 - b) ☐ It appears as a small image next to the website title in browser tabs and bookmarks
 - c) ☐ It is used as the background for buttons
 - d) ☐ It defines the Colour of the website's navigation links.

P.T.O.

- 5) Which role is most likely to have access to an admin panel on a website?
- a) ☐ Regular website visitor
 - b) ☐ Website developer
 - c) ☐ Site admin or content manager
 - d) ☐ Marketing affiliate
- 6) Which of the following is a common feature in an admin panel of an e-commerce website?
- a) ☐ Content creation
 - b) ☐ Order and inventory management
 - c) ☐ Blog post writing
 - d) ☐ Customer feedback management
- 7) How can you install a new theme on a WordPress site?
- a) ☐ By editing the theme's code directly
 - b) ☐ By downloading a ZIP file and uploading it through the WordPress admin panel
 - c) ☐ By adding the theme folder to the "wp-content" directory manually
 - d) ☐ By using a plugin designed for theme installation
- 8) Which of the following is true about WordPress "pages" compared to "Posts"?
- a) ☐ Pages are listed in reverse chronological order
 - b) ☐ Posts are static and do not change over time.
 - c) ☐ Pages do not typically appear in the blog feed
 - d) ☐ Pages can be categorized using tags
- 9) How do you activate a plugin after it has been installed in WordPress?
- a) ☐ Go to the plugin's settings page and click "Activate"
 - b) ☐ WordPress activates it automatically after installation
 - c) ☐ Go to the plugins section in the admin panel and click "Activate" under the installed plugin
 - d) ☐ You need to modify the plugin's file permission to activate it.
- 10) When using the WooCommerce plugin, which features allow you to set up different product categories for an online store?
- a) ☐ Payment gateways
 - b) ☐ Product attributes
 - c) ☐ Product categories
 - d) ☐ Product variation

SECTION – II

- Q.2 Explain the various advantages and limitation of website [08]
- Q.3 How to features such as font selection, text formatting and writing aids contribute to content creation and presentation? [08]
- Q.4 Define the process of previewing and editing both posts and pagers within the WordPress editor [08]
- Q.5 Explain the process of configuring headers and footers in a content managements system (CMS) such as WordPress. [08]
- Q.6 Discuss the significance of configuring general settings in website management interface. Provide example of specific settings. [08]
- Q.7 Write short note on ANY TWO of the following [08]
- a) Dashboard plugin
 - b) CMS
 - c) SSL

SECTION – III

- Q.8 Explain how hyperlinks can be added within both posts and pages to connect different pieces of content or external recourses. [10]
- Q.9 Discuss steps involved in creating and organizing pages within a hierarchical structure, including parent and child page relationship. Provide example. [10]

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BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)

B.C.A. Sem-II : WINTER: 2025

SUBJECT: DBMS-I

Day : Wednesday
Date : 26/11/2025

W-26279-2025

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.

- 1) All Sub. -Questions of Q.No.1 is **COMPULSORY**.
- 2) Section - I (MCQ type) write the Sub Question No. and the chosen alternative (eg. Ib,iic) in the answer book.
- 3) Attempt any **FIVE** questions from Section - II. Each question carries **08** marks.
- 4) Attempt any **ONE** question from Section - III. Each question carries **10** marks.
- 5) Figures to the right indicate **FULL** marks.
- 6) Answers to Section I, II & III should be written in **SAME** answer book.

SECTION - I

Q.1 Multiple Choice Questions: (M.C.Q.)

(10)

1. DCL stands for
 - a) Database Commit Language
 - b) Database Committing Language
 - c) Database Controlling Language
 - d) Data Control language
2. Which of the following is NOT a valid keyword in SQL?
 - a) SELECT
 - b) DELETE
 - c) WHERE
 - d) INCLUDE
3. A key containing single attribute is called
 - a) Composite key
 - b) Simple key
 - c) Foreign key
 - d) Super key
4. Entity is a
 - a) Object of relation
 - b) Present working model
 - c) Thing in real world
 - d) Model of relation
5. The database is partitioned into fixed-length storage units called
 - a) Parts
 - b) Blocks
 - c) Reads
 - d) Build
6. Which normal forms are based on the concept of functional dependency
 - a) 1NF
 - b) 2NF
 - c) 3NF
 - d) 4NF
7. Full form of TCL is -----
 - a) Ternary control language
 - b) Transaction control language
 - c) Transaction central language
 - d) Transmission control language
8. What is rows of a relation known as
 - a) Degree
 - b) Entity
 - c) Tuple
 - d) attribute
9. Which command is used to change data in SQL table.
 - a) Insert
 - b) Update
 - c) Merge
 - d) alter
10. In E-R model which symbol is used to represent weak entity set.
 - a) Diamond
 - b) Ellipse
 - c) Dotted rectangle
 - d) Doubly outlined rectangle

SECTION – II

- Q.2 Explain CODD's rules for RDBMS. (08)
- Q.3 Explain 3-tier architecture of database system. (08)
- Q.4 Define Primary key, foreign key. List properties of primary and foreign key. (08)
- Q.5 What is concurrency control? Why it is required? (08)
- Q.6 Explain types of failure in database system (08)
- Q.7 Write Short Notes on ANY TWO of the following : (08)
- a) Weak entity vs strong entity
 - b) Lossy and lossless decomposition
 - c) Database users

SECTION – III

- Q.8 Draw E-R diagram for library management system (consider book, publisher, author, student, librarian entities and their relationship with each other) (10)
- Q.9 What is SQL? Explain select command in SQL with suitable example (10)
