

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)

B.C.A. Sem-I : SUMMER : 2025

SUBJECT: ORGANIZATION OF IT BUSINESS

Day : Monday
Date : 02/06/2025

S-25954-2025

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

N. B. :

- 1) **Q. No. 1 is COMPULSORY.**
- 2) Section – I (MCQ Type), should be attempted in **SEPARATE** OMR sheet and will be collected within the first 20 Minutes.
- 3) Attempt **ANY FIVE** questions from Section II. Each question carried **08** marks.
- 3) Attempt **ANY ONE** questions from Section III. Each question carried **10** marks.
- 4) Figures to the right indicate **FULL** marks.
- 5) Answers to Section – II and Section – III should be written in **SAME** answer book.

SECTION – I

Q. 1 MCQ's

(10)

- i) Which of the following is NOT an objective of business?
 - a) Profit making
 - b) Social welfare
 - c) Reducing competition
 - d) Customer satisfaction
- ii) In India, industrialization began significantly after:
 - a) 1900
 - b) 1947
 - c) 1991
 - d) 2000
- iii) Which form of business is passed down from one generation to the next?
 - a) Sole proprietorship
 - b) Partnership
 - c) Joint Hindu Family Business
 - d) Joint Stock Company
- iv) Which of the following is the final stage in the formation of a company?
 - a) Promotion
 - b) Incorporation
 - c) Capital Subscription
 - d) Commencement of Business

P. T. O.

- v) Which of the following is the purpose of a prospectus?
- a) To invite the public to subscribe to shares
 - b) To outline company rules
 - c) To describe employee benefits
 - d) To finalize the company's accounts
- vi) IT has led to the creation of which new type of business structure?
- a) Hierarchical
 - b) Matrix
 - c) Virtual organizations
 - d) Bureaucratic
- vii) Which of the following factors does NOT affect the choice of business ownership?
- a) Capital requirement
 - b) Number of competitors
 - c) Liability
 - d) Continuity
- viii) An IT strategy is essential for:
- a) Legal compliance
 - b) Corporate growth
 - c) Employee morale
 - d) Customer satisfaction
- ix) The articles of Association mainly focus on:
- a) The company's internal management
 - b) The company's product details
 - c) The legal status of the company
 - d) Market research strategies
- x) The concept of value chain analysis is primarily associated with:
- a) Accounting practices
 - b) Cost management
 - c) Strategic use of IT
 - d) Human resource management

SECTION – II

- Q. 2 Explain the different stages involved in the formation and incorporation of a company. (08)
- Q. 3 Evaluate the strategic role of Information Technology (IT) in modern businesses. Provide examples to explain how IT gives a competitive edge. (08)
- Q. 4 What are the key factors that influence the choice of a business ownership form? Discuss how these factors impact the success of the business. (08)
- Q. 5 What is Joint-Hindu Family Business? Explain with proper example. (08)
- Q. 6 Explain how we can create new type of organization by adding people to the design. (08)
- Q. 7 Write short notes on **ANY FOUR** of the following: (08)
- a) Industrial Revolution and its impact on Business
 - b) Public Enterprises
 - c) Technology Transforms

SECTION – III

- Q. 8 A company is facing challenges in expanding its operations due to limited access to capital. Which form of business ownership would you recommend for this company and why? (20)
- Q. 9 A medium sized manufacturing company wants to use IT to streamline its supply chain. Explain how IT can improve efficiency and reduce costs in their operations. (20)

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)

B.C.A. Sem-I : SUMMER : 2025

SUBJECT: DISCRETE MATHEMATICS

Day : Friday

Date : 30/05/2025

Time : 10:00 AM-01:00 PM

Max. Marks : 60

S-25955-2025

N.B.:

- 1) Q.No.1 is **COMPULSORY**.
- 2) Section – I (MCQ Type), should be attempted in **SEPARATE** OMR sheet and will be collected within the first 20 minutes.
- 3) Attempt **ANY FIVE** questions from Section – I and attempt **ANY ONE** questions from Section – II.
- 4) Answers to both the sections should be written in the **SAME** answer book.
- 5) Figures to the right indicate **FULL** marks.

SECTION – I

Q.1 MCQ's

[10]

- 1) What is the cardinality of the set of odd positive integers less than 10?
a) 10 b) 5 c) 3 d) 20
- 2) The function $(g \circ f)$ is _____, if the function f and g are onto function.
a) Into function c) Onto function
b) One to one function d) One-to-many function
- 3) An occurrence of an outcome to any statistical experiment is called _____.
a) Sample space b) Experiment c) Event d) Probability
- 4) Let P : We should be honest, Q : We should be dedicated,
 R : We should be overconfident. Then 'We should be honest or dedicated but not overconfident'. Is best represented by?
a) $\sim P \vee \sim Q \vee R$ b) $P \wedge \sim Q \wedge R$ c) $P \vee Q \wedge R$ d) $P \vee Q \wedge \sim R$
- 5) A matrix having many rows and one column is known as?
a) Row matrix c) Diagonal matrix
b) Column matrix d) Unit matrix
- 6) $P(n, r)$ means _____.
a) $n! / r!$ b) $n! / (n! - r!)$ c) $n! / (n - r)!$ d) $r! / n!$
- 7) The order of the objects in a _____ does not matter, since it may contain some or all of the objects from a given set?
a) Permutation b) Combination c) Binomial d) Boolean
- 8) When we throw a coin then what is the probability of getting a tail?
a) 2 b) $1/2$ c) 5 d) 0
- 9) The intersection of the sets $\{1, 2, 8, 9, 10, 5\}$ and $\{1, 2, 6, 10, 12, 15\}$ is the set
a) $\{1, 2, 10\}$ b) $\{5, 6, 12, 15\}$ c) $\{2, 5, 10, 9\}$ d) $\{1, 6, 12, 9, 8\}$
- 10) Probability can be _____.
a) Greater than or equal to 10 c) Less than 0
b) Greater than 1 d) Between 0 and 1

P.T.O.

SECTION - II

- Q.2 What is a set? Given, $U = \{1, 2, \dots, 9\}$, $A = \{2, 3, 4, 8\}$, $B = \{1, 5, 7, 8, 9\}$ [08]
Find : $A \cup (B \cap C)$, $B \cup (A \cap C)$
- Q.3 What is Logic? Construct the truth table for following statements: [08]
 $(p \rightarrow q) \vee (p \wedge \sim q)$
- Q.4 Given $A = \begin{bmatrix} 1 & 4 & 9 \\ 2 & 1 & 3 \\ 4 & 2 & 1 \end{bmatrix}$, $B = \begin{bmatrix} 2 & 2 & 1 \\ 1 & 2 & 1 \\ 1 & 1 & 1 \end{bmatrix}$ [08]
Find : $A + B$, $A - B$, A^T , B^T .
- Q.5 Let the functions f and g be defined by $f(x) = 2x + 1$ and $g(x) = x^2 - 2$. [08]
Find composite function $f \circ g$, $g \circ f$.
- Q.6 Find the number of permutations that can be formed from all the letters of the word: [08]
a) UNUSUAL b) RADAR
- Q.7 Write short notes on ANY TWO of the following: [08]
a) Venn Diagram
b) Relation
c) Bayes Theorem

SECTION - III

- Q.8 Find the inverse of the matrix $A = \begin{bmatrix} 3 & 10 \\ 2 & 7 \end{bmatrix}$ by adjoint method. [10]
- Q.9 An unbiased die is thrown. Find the probability of getting a score [10]
a) an even number b) that is a multiple of 3

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BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)
B.C.A. Sem-I : SUMMER : 2025
SUBJECT: C PROGRAMMING

Day : Monday
Date : 26/05/2025

S-25953-2025

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

N.B.:

- 1) Q. No. 1 is **COMPULSORY**.
- 2) Section -I (MCQ Type), should be attempted in **SEPARATE** OMR sheet and will be collected within the **first 20 minutes**.
- 3) Attempt **ANY FIVE** questions from Section -II. Each question carries **08 marks**.
- 4) Attempt **ANY ONE** questions from Section -III. Each question 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

- i) Which one is the correct description for the variable balance declared below?

```
int **balance;
```

 - a) Balance is a point to an integer
 - b) Balance is a pointer to a pointer to an integer
 - c) Balance is a pointer to a pointer to a pointer to an integer
 - d) Balance is an array of integer
- ii) Study the following array definition

```
int num[10]= {3, 3, 3};
```

Which of the following statement is correct?

 - a) numb [9] is the last element of the array num
 - b) The value of num]8] is 3
 - c) The value of num [3] is 3
 - d) None of the above
- iii) Which of the following is true in the case of C programming?
 - a) The function is a variable.
 - b) Parenthesis isn't needed at all in C Programming
 - c) There is no need for closing parenthesis in C Programming
 - d) Float is a variable
- iv) Which header file uses gets() ?
 - a) Studio.h
 - b) Stdlib.h
 - c) Conio.h
 - d) All of the above

P. T. O.

- v) Which of the following is not a variable type in C Programming?
- Float
 - Int
 - While loop
 - All of the above
- vi) What is the output of this statement "printf("%d", (a++))"?
- The value of (a+1)
 - The current value of a
 - Error message
 - Garbage
- vii) What will be the output of following program fragment? `printf("\a\a\a");`
- Prints 263
 - Prints the ASCII equivalent of 263
 - Rings the bell
 - Prints garbage
- viii) What will be the output of following code?
- ```
for (i = 3; i < 15; i += 3)
{
 print ("%d", i);
 ++i;
}
```
- 3 6 9 12
  - 3 6 9 12 15
  - 3 7 11
  - 3 7 11 15
- ix) Which of the following is the variable that can be used for all functions?
- Static variable
  - Global variable
  - Local variable
  - Dynamic variable
- x) If addition had higher precedence than multiplication, then the value of the expression  $(1+2 * 3 + 4 * 5)$  would be which of the following?
- 27
  - 47
  - 69
  - 105

## SECTION-II

- Q.2 Write an algorithm and design a flowchart to search an integer from N numbers in ascending order. (08)
- Q.3 What is datatype? Explain various datatypes used in C language. (08)
- Q.4 Explain the various decision making statements used in C language. (08)
- Q.5 What is array? Explain the types of array in C language. (08)
- Q.6 What is pointer? Explain pointer with example. (08)
- Q.7 Write short notes on: (08)
- a) Preprocessor directives
  - b) Storage classes
  - c) String

## SECTION-III

- Q.8 Write a C-Program using functions to generate the Fibonacci series. (10)
- Q.9 Write a C-Program using structures to read, write, compute average- marks and display the students scoring above and below the average marks for a class of N students. (10)

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**BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)**  
**B.C.A. Sem-I : SUMMER : 2025**  
**SUBJECT: FUNDAMENTALS OF INFORMATION TECHNOLOGY**

Day : Wednesday  
Date : 28/05/2025

S-25952-2025

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) 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 questions carries **08** marks.
- 4) Attempt any **ONE** questions from Section - **III**. Each questions carries **10** marks.
- 5) Figures to the right indicate **FULL** marks.
- 6) Answers to **Section I, II and III** should be written in same answer book.

**Q. 1 MCQ's**

- i) What is a Computer? (10)
- a) A mechanical device
  - b) An electronic device that processes data
  - c) A machine used only for gaming
  - d) A tool for manual calculation
- ii) The term 'hardware' refers to:
- a) Programs
  - b) Input/ output devices
  - c) Applications
  - d) Instructions
- iii) Which of the following is a standard input device?
- a) Monitor
  - b) Printer
  - c) Keyboard
  - d) Speaker
- iv) A device that converts images or text into a digital format is called a:
- a) Printer
  - b) Scanner
  - c) Monitor
  - d) CPU
- v) Which of the following is an example of primary memory?
- a) Hard disk
  - b) RAM
  - c) CD-ROM
  - d) Pen-Drive
- vi) What is the main purpose of secondary memory?
- a) Processing data
  - b) Temporary storage
  - c) Long term data storage
  - d) Boosting speed

P. T. O.

- vii) System software includes:
- MS Word
  - Antivirus
  - Operating System
  - Photoshop
- viii) What is a computer network?
- A collection of software programs
  - A collection of interconnected computers
  - A group of databases
  - A group of printers
- ix) Machine language is written in:
- Alphabets
  - Symbols
  - Binary (0 and 1)
  - Assembly code
- x) What is software?
- Physical part of a computer
  - Hardware tool
  - A set of instructions that tells the computer what to do
  - A power supply

## SECTION-II

- Q.2 Define Computer. List and explain different characteristics of computer. (08)
- Q.3 What is Secondary memory? Explain any two secondary storage devices in computer system. (08)
- Q.4 What is Transmission Media? Explain various transmission media in detail. (08)
- Q.5 Define Computer Network. List and explain different types of computer network. (08)
- Q.6 What is output device? Explain Monitor and Printer as an output device. (08)
- Q.7 Write short notes on ANY TWO of the following: (08)
- Applications of Computer
  - Operating System
  - Primary Memory

## SECTION-II

- Q.8 "MS Word plays an important role in an organization". Justify with proper example. (10)
- Q.9 Global English Medium School (GEMS) is one of the leading school. GEMS want to do advertisement of their school. Explain various steps for advertisement, using power point presentation. (10)