

Seat No. 20871

QP-3261

Total No. of Pages : 3

OCT_NOV_2024 WINTER EXAMINATION
12329 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Problem Solving Techniques
Sub. Code: 109809

Day and Date: FEBRUARY ,18-02-2025

Total Marks: 60

Time: 10:30 AM To 12:30 PM

Instructions: 1. Figures to the right indicate full marks

Special Inst.: Que.1 and Que. 7 are compulsory.

Attempt any THREE questions from Q.No.2 to Q.No. 6.

Q1) Solve following MCQ.

[10]

- i. When an algorithm is written in the form of a programming language, it becomes a _____.
 - A. Flowchart
 - B. Program
 - C. Pseudo code
 - D. Syntax
- ii. A system wherein items are added from one end and removed from the other end.
 - A. Stack
 - B. Queue
 - C. Linked List
 - D. Array
- iii. In which type of control structure no statement is skipped and no one is repeated?
 - A. Sequence
 - B. Selection
 - C. Repetition
 - D. All
- iv. Assembly language is a _____ level programming language.
 - A. High
 - B. Low
 - C. Machine
 - D. None of these
- v. ASCII stands for _____.
 - A. American Stable Code for International Interchange
 - B. American Standard Case for Institutional Interchange
 - C. American Standard Code for Information Interchange
 - D. American Standard Code for Interchange Information

[1]

P.T.O.



vi. The 1's complement of binary number 0101 is ____.

- A. 1001
- B. 0111
- C. 1011
- D. 1010

vii. In the statement ++variable; ++ is used as ____.

- A. post-increment operator
- B. pre-decrement operator
- ~~C. pre-increment operator~~
- D. post-decrement operator

viii. The 'break' statement cannot be simply used within ____.

- A. do-while
- ~~B. if-else~~
- C. for
- D. while

ix. What is the purpose of return statement in a function?

- A. To declare the function's return type
- B. To exit the program
- ~~C. To return a value from the function~~
- D. To define a function

x. What is the highest index for an array with 10 elements in C?

- ~~A. 5~~
- B. 9
- C. 10
- D. 11

Q2) Explain problem solving steps with suitable example.

[10]

Q3) Identify different kinds of repetitions in the problem.

[10]

Q4) Discuss different generations of programming language.

[10]

Q5) Explain the process of binary search with suitable example.

[10]

Q6) How to translate algorithm in C program? Illustrate with suitable example.

[10]

Q7) Write short notes (Any Four)

[20]

a. Role of Data Structures in Problem Solving

[5]

b. Operator Precedence and Associativity

[5]

- | | | |
|----|-------------------------------|-----|
| c. | Flowchart | [5] |
| d. | Characteristics of Algorithms | [5] |
| e. | Switch Case statement | [5] |
| f. | Recursion | [5] |

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application
(NEP2.0)

(109809) Problem Solving Techniques Part 1 SEM 1