

Roll No.

Total No. of Pages : 02

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B.Tech.(CSE/IT/AI&DS/AI&ML/Block Chain/CE/Cyber Security/DS/CSE(IOT)/CSD/EEE/DS/EE/ECE(Industry Integrated)/ETE/ECS/ME/Robotics&AI/(Internet of Things and Cyber Security including Block Chain Technology) (Sem.-1, 2)

PROGRAMMING FOR PROBLEM SOLVING

Subject Code : BTPS101-18

M.Code : 93803

Date of Examination :23-05-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION - B & C.** have **FOUR** questions each.
3. Attempt any **FIVE** questions from **SECTION B & C** carrying **EIGHT** marks each.
4. Select at least **TWO** questions from **SECTION - B & C**.

SECTION - A

- I. **Write a short notes on :**
 - a. Discuss the role of operating system.
 - b. List various symbols used in flowchart.
 - c. Differentiate between syntax error and logical error.
 - d. Differentiate between while and do while loop.
 - e. How can we find if the two strings are same or not?
 - f. What are library functions? Give an example.
 - g. What is recursion? Give an example of recursive function.
 - h. How much memory is allocated to structure object? Explain with the help of an example.
 - i. Write code to create a pointer, save the address of a variable in that pointer and print the value of that variable using pointer.
 - j. Explain various types of logical operators with the help of an example each.

SECTION - B

2. Explain various methods of passing arguments to a function.
3. Write a program to create a student structure with 4 members. Accept input and then display the contents of that structure.
4. What is flowchart? Explain different symbols of flowchart. Draw a flowchart that finds the largest of three numbers.
5. Explain different data types used in C programming language.

SECTION - C

6. What is sorting? Explain bubble sorting.
7. **Explain :**
 - a. Different types of memories.
 - b. Algorithm with the help of an example.
8. Explain in detail various conditional statements in C programming language.
9. What is file handling? Explain various functions to manage the files in C programming language.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.