

Problem Solving Methodologies and Programming in C (Theory) (Major-1)

Time: 2:00 Hours

Marks: 50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1 Attempt the following (any two) (10)

- (1) Explain the features of C language with its limitations
- (2) Differentiate between traditional C and modern C
- (3) Answer the following :
 - (A) Explain any one logical operator with example
 - (B) Explain the concept of variable with example
- (4) Answer the following:
 - (A) Differentiate between type casting and type conversion
 - (B) Explain : flow charts

Que.2 Attempt the following (any two) (10)

- (1) Explain giving example: looping logic
- (2) List various decision structures. Explain any one with example
- (3) Answer the following:
 - (A) Explain while loop with example
 - (B) Explain ternary operator with example
- (4) Explain giving example: use of break and continue statements

Que.3 Attempt the following (any two) (10)

- (1) Differentiate between call by value and call by reference
- (2) What is library function in C? Explain its usefulness in C programming
- (3) List and explain various types of UDF
- (4) Answer the following:
 - (A) List various date and time functions. Explain any one
 - (B) List various string library functions. Explain any one

Que.4 Attempt the following (any two) (10)

- (1) Explain giving example: two-dimensional array
- (2) Explain the concept of union with example
- (3) Explain with syntax and example: nested structures
- (4) Answer the following:
 - (A) Explain: String array
 - (B) Explain with example: array within structure

Que.5 Attempt the following (any two) (10)

- (1) Explain the importance of file handling
- (2) Explain with example: pointer to structure
- (3) What is dynamic programming? Explain giving example
- (4) Explain the concept of pointer to pointer
