

**R16**

**Code No: 132AD**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech I Year II Semester Examinations, September - 2023**

**COMPUTER PROGRAMMING IN C  
(Common to EEE, ECE, CSE, IT, ETM)**

**Time: 3 Hours**

**Max. Marks: 75**

**Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

**PART - A**

**(25 Marks)**

- 1.a) How real numbers and integers are stored. [2]
- b) What is meant by time sharing environment? [3]
- c) Explain about scope rules. [2]
- d) What are the limitations of recursion? [3]
- e) Write about Pointer Arithmetic with an example. [2]
- f) List the substrings that can be formed from the string "JNTUH". [3]
- g) Write short note on Enumerations. [2]
- h) Explain self-referential structures in brief. [3]
- i) Write about File streams. [2]
- j) Discuss about fopen() function. [3]

**PART - B**

**(50 Marks)**

- 2.a) Explain in detail about Selection Statements in C.
- b) Write an algorithm to find the greatest number among the three given numbers. [5+5]

**OR**

- 3.a) Explain in detail about Computer Languages.
- b) Explain the use of 'for' loop, 'do-while' with the help of example program. [5+5]

- 4.a) Discuss various applications of arrays.
- b) Write a program to calculate GCD of two numbers by using functions. [5+5]

**OR**

- 5.a) Write a program to implement the binary search by using functions.
- b) What is an array? Explain the one-dimensional arrays for Inter Function Communication. [5+5]

- 6.a) Discuss about String Input / Output Functions with example programs.
- b) Explain in detail applications of pointers. [5+5]

**OR**

- 7.a) What is meant by arrays of strings? When it will be used? Explain with a 'C' program.
- b) Write a program for implementation of pointers to pointers. [5+5]

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- 8.a) Explain structures and functions with an example program.
- b) Write a program to demonstrate command line arguments. [5+5]

**OR**

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- 9.a) Explain the Enumerated data types with an example.
- b) Write a C program to implement unions. [5+5]

- 10.a) Explain the different types of files are used in C.
- b) Write a C program to implement feof() and ferrror() functions. [5+5]

**OR**

- 11.a) Compare formatting input/output functions with scanf() and printf().
- b) Write a program to copy the content of one file to another file. [5+5]

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