

Code No: 132AD**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech I Year II Semester Examinations, January/February - 2024****COMPUTER PROGRAMMING IN C****(Common to EEE, ECE, CSE, IT)****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 many bits of the memory is occupied by short int and unsigned long int? [2]
- b) List and explain the various symbols used in flowcharts. [3]
- c) State the differences between entry controlled and exit controlled loops. [2]
- d) State the rules that determines the order in which initial values are assigned to multi dimensional array elements. [3]
- e) Distinguish between actual and formal arguments. [2]
- f) List the various types of functions depending upon categories of arguments and return statements with example. [3]
- g) Write the syntax for copying a string S1 into S2. Give example. [2]
- h) Describe how a pointer variable can be declared and accessed with an example. [3]
- i) Write the purpose of fseek() with example. [2]
- j) Write the syntax and usage of rewind(). [3]

PART-B**(50 Marks)**

- 2.a) Write and explain the steps present in software development.
- b) Give brief description about the order and precedence of various operators. [5+5]

OR

3. List and explain the various iterative statements supported by C. [10]
4. Mention the importance of storage classes in C. Explain various storage classes that are supported by C language. [10]

OR

- 5.a) With the help of suitable example, explain the working of linear search.
- b) How can we store the one dimensional arrays in memory? Explain. [5+5]

6. Explain the following:
 - a) Process of pointer initialization with an example
 - b) Distinguish between (*m)[5] and *m[5]
 - c) Distinguish between * and & operators. [4+3+3]

OR

- 7.a) Write a program to find any given string is a PALINDROME or not.
- b) Write short notes on various pointer arithmetic operations. [5+5]

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8. Explain the following with suitable example:

- a) Nested Structures
- b) Array of Structures

[5+5]

OR

- 9.a) Discuss in detail about the Unions and Bitfields in C.
- b) Write short notes on accessing structure data using pointer and normal variables. [5+5]

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10. Explain the following functions:

- a) `getc()`, `getche()`, `getchar()`
- b) `fscanf()` and `fprintf()`

[5+5]

OR

- 11.a) Differentiate between binary and text files.
- b) Write a program to read the information present in a file and print it on to the standard output file. [5+5]

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