

Code No: 821AC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**MCA I Semester Examinations, January - 2020****COMPUTER PROGRAMMING USING C****Time: 3hrs****Max.Marks:75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**5 × 5 Marks = 25**

- 1.a) Discuss about the features of procedure oriented programming languages. [5]
- b) Describe any five preprocessor directives in C with examples. [5]
- c) What is the role of pointers in inter function communication? [5]
- d) What is a structure? How to define and declare a structure in C? [5]
- e) What are the various types of files supported in C? [5]

PART - B**5 × 10 Marks = 50**

- 2.a) What is an operator? Describe precedence of various operators in C and their associativity.
- b) What is type conversion? Explain implicit and explicit type conversions in C with suitable examples. [4+6]

OR

- 3.a) Evaluate the following expression in C with the values P=5, Q=20, R=15
 $P + (Q * R / P) * P + Q * R$
- b) Enumerate all the bitwise operators in C with example. [6+4]
- 4.a) Demonstrate break and continue statements with suitable examples.
- b) Write a C program to find factorial of given number using recursive functions. [6+4]

OR

- 5.a) Explain about various storage classes in C with suitable examples.
- b) Demonstrate all the iterative statements in C with examples. [5+5]
- 6.a) Define an Array. What are the advantages of Arrays? How to declare and initialize string values using arrays in C?
- b) Write a C program for addition of two matrices. [5+5]

OR

- 7.a) How to pass an array to a function? Explain with an example program.
- b) What is pointer to pointers? Give syntax and an example. [6+4]

- 8.a) How to define union in C? Differentiate between unions and structures.
b) Explain about any five String built-in functions with syntax and examples. [5+5]

OR

9. Write a C program to read 3 student details such as Htno, name, marks in 5 subjects and calculate and display total and average marks of each student. [10]

- 10.a) Write syntax and examples for `getc()`, `fgetc()`, `putc()` and `fputc()` functions.
b) Write a C program to reverse the content of given file using `fseek()` function. [4+6]

OR

- 11.a) Differentiate between sequential access files and random access files.
b) Write a C program to concatenate the contents of two files into another file. [5+5]

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