

R15

Code No: 821AC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**MCA I Semester Examinations, June/July - 2018****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) Explain different types of computer languages briefly. [5]
- b) What is a function? Why do we use functions in 'C' language? Give an example. [5]
- c) How to declare and initialize a multi dimensional array? [5]
- d) What are the different type castings supported in C? [5]
- e) Explain about positioning functions with example. [5]

PART - B**5 × 10 Marks = 50**

- 2.a) Write a C program to find the maximum of 3 numbers using conditional operators.
 - b) Draw a flow chart to find average of 10 numbers. [5+5]
- OR**
- 3.a) What is associativity? Illustrate its application in expression evaluation.
 - b) Discuss about the various bitwise operators supported by Language 'C'. [5+5]
- 4.a) Write a C program to find factorial of a given number 'N' by using iteration and recursion separately.
 - b) Explain inter function communication with a C-program. [5+5]
- OR**
- 5.a) Define statement. Explain different types of selection statements with examples.
 - b) Compare the 'break' and 'goto' statements with example. [5+5]
- 6.a) Write a 'C' program to search for an element by using Linear Search.
 - b) Discuss the applications of arrays. [5+5]
- OR**
- 7.a) Explain pointer arithmetic with a sample C-program
 - b) Write a program to accept a set of names and display them by using array of pointers. [5+5]

- 8.a) Write a C program that implements string concatenate operation *STRCAT* (*str1*, *str2*) that combines a string *str1* to another string *str2* without using library function.
- b) Give an example for nested structure. [5+5]

OR

- 9.a) Create a structure called **student** and the members of the structure are *Stu_Name*, *Stu_Rno*, *M1*, *M2*, *M3*. Create a **pointer variable** for the structure, store the values and fetch the values present in the structure student.
- b) In what way a Union differs from structures. [5+5]

- 10.a) What is meant by state of a file? Discuss about file status functions.
- b) Write a 'C' program to count the number of words, white spaces and tab spaces present in a file. [5+5]

OR

- 11.a) Explain the file input and output functions with example programs.
- b) Distinguish between *r*, *r+* and *w*, *w+* modes of files. [5+5]

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