

Code No: 131AD**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech I Year I Semester Examinations, May/June - 2017****COMPUTER PROGRAMMING IN C****(Common to CE, ME, MCT, MMT, MIE, CEE, MSNT)****Time: 3 hours****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**(25 Marks)**

- 1.a) What is the size of the double data type? Which conversion specifier is used? [2]
- b) Write program in C to interchange the two values without using third variable. [3]
- c) Distinguish between built – in and user – defined functions. [2]
- d) How one dimensional arrays are initialized? Give example. [3]
- e) List the dynamic memory handling functions used in 'C'. [2]
- f) List the advantages and disadvantages of using pointers. [3]
- g) Write the syntax for enumerated data type. Give example. [2]
- h) Give brief information about self referential structures. [3]
- i) Write the syntax for opening a file. Give example. [2]
- j) List the advantages of using files. [3]

PART-B**(50 Marks)**

- 2.a) Write and explain the steps in writing a 'C' program.
 - b) Discuss about the various bitwise operators supported by Language 'C'. [5+5]
- OR**
- 3.a) Write 'C' program to print the Fibonacci sequence.
 - b) In what way a do – while loop differs from while loop. Explain. [5+5]

- 4.a) What is a function? What are its advantages? Explain various parameter passing techniques.
- b) Write a 'C' program to search for an element by using Linear Search. [5+5]

OR

5. Why we need storage classes? List and explain the various storage classes present in language 'C'. [10]
6. With the help of syntax and example program explain the various string handling functions. [10]

OR

- 7.a) Write in detail about the various dynamic memory allocation functions.
- 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 using functions to return the sum of two complex numbers passed as parameters.
b) Write short notes on typedef. [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) Discuss in detail about the file positions 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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