

Code No: 132AD

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech I Year II Semester Examinations, May/June - 2017****COMPUTER PROGRAMMING IN C****(Common to EEE, ECE, CSE, EIE, IT)****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) Explain various logical operators that are used in 'C'. [2]
- b) Differentiate between break and continue statement with an example. [3]
- c) Explain about auto storage class. [2]
- d) What are the applications of an array? [3]
- e) Explain the array of pointers with example. [2]
- f) What is null pointer? What is a void pointer? Explain when null pointer and void pointer are used. [3]
- g) Explain how does enum is differ from type def in 'C'. [2]
- h) Explain about the preprocessor commands. [3]
- i) Explain about fseek( ). [2]
- j) Discuss about the different modes available for opening a file. [3]

**PART-B****(50 Marks)**

- 2.a) Draw the flowchart to find the roots of the given equation  $ax^2 + bx + c = 0$ . [5+5]
  - b) Explain the relational operators with an example. [5+5]
- OR**
- 3.a) Explain the different types of data types used in 'C' language.
  - b) What is a programming language? Briefly explain the classification of programming languages. [5+5]
- 4.a) Explain the concept of declaring, accessing and storing elements in a 1-dimensional array.
  - b) Write a program to sort the elements by using bubble sort. [5+5]
- OR**
- 5.a) Explain the different types of functions with an example.
  - b) Write a program to print transpose of a given matrix. [5+5]
- 6.a) Explain any five string manipulation functions with examples.
  - b) Write a program using pointers to compute the sum of all elements stored in an array. [5+5]
- OR**
- 7.a) Explain the concept of passing strings to functions as dynamic arrays with a program.
  - b) Write a program to find the length of a given string by using string function. [5+5]

- 8.a) How to declare a union in 'C' explain with an example.  
b) Write a 'C' program to compute the monthly pay of 100 employees using each employee name and basic pay. The DA is computed as 2.5% of the basic pay, Gross salary (Basic pay + DA). Display the employees name and gross salary. [5+5]

**OR**

- 9.a) Differentiate between structure and union in 'C'.  
b) Write a program to calculate grade, average marks and total marks in a class of 60 students by using structure concept. [5+5]

- 10.a) Write a 'C' program to count the number of characters in a file.  
b) Explain various standard library functions for handling files. [5+5]

**OR**

11. Write a 'C' program to create a file contains a series of integer numbers and then reads all numbers of this file and write all odd numbers to other file called odd and write all even numbers to a file called even. [10]

---ooOoo---