

**Code No: 131AD****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech I Year I Semester Examinations, December – 2019/January - 2020****COMPUTER PROGRAMMING IN C****(Common to CE, ME, MCT, MMT, AE, MIE, PTM, 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) Differentiate application programming and system programming. [2]
- b) With an example illustrate the usage of 'continue'. [3]
- c) List the types of storage classes. [2]
- d) What is a predefined function? Give example. [3]
- e) What is a void pointer? Give its uses. [2]
- f) How strings are represented in C? Give examples. [3]
- g) Define preprocessor directive. [2]
- h) Give example of self referential structures. [3]
- i) What are binary files? [2]
- j) Name file status functions. [3]

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

- 2.a) What are precedence of operators? Explain with example.
  - b) Illustrate nested "if" constructs with example. [5+5]
- OR**
3. Write a C program to print pascal number triangle for a given number. [10]
- 4.a) What are recursive functions ? Give example.
  - b) Explain the usage of two dimensional arrays. [5+5]
- OR**
5. Write a C program for 3×3 matrix multiplication. [10]
- 6.a) Compare and contrast array of pointer and pointer to arrays.
  - b) How to pass an array to a function? Explain. [5+5]
- OR**
7. Write a C program to demonstrate pointer arithmetic with its respective output. [10]
- 8.a) With an example explain passing structures through pointers.
  - b) Explain unions and how unions differ from structures. [5+5]
- OR**
9. Write a C program to get and print the details of your department (using structures and functions). [10]
- 10.a) Explain fseek, rewind and ftell functions in C.
  - b) Write the differences between text and binary file. [5+5]
- OR**
11. Write a C program to print the details of the theatres when given a movie name (use files to store the theatre and movie details). [10]