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Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

THIRD SEMESTER B.TECH DEGREE EXAMINATION(R&S), DECEMBER 2019

Course Code: EE207

Course Name: COMPUTER PROGRAMMING

Max. Marks: 100 Duration: 3 Hours

PART A

Answer all questions, each carries 5 marks. Marks

1 Write an algorithm for printing all odd numbers between 10 and 50. (5)

2 With the help of an example, explain the use of continue statement. (5)

3 Write a C program to find the median of *n* integers stored in an array (5)

4 Using an example, explain the concept of recursion. (5)

5 Using pointers, write a C program to arrange the letters of a word in alphabetic order. (5)

6 What are unions? How are they different from structures? (5)

7 Write a C program to append the contents of one file to another file. (5)

8 Write a Python program to check if the given string is a palindrome or not. (5)

PART B

Answer any two full questions, each carries 10 marks.

9 a) What are pre-processor directives? Give examples. (4)

b) Draw a flow chart to determine sum of digits of an integer. (6)

10 a) Differentiate between relational and logical operators in C (4)

b) Write a C program to find the age of a person in years, months and days if his date of birth is entered. (6)

11 a) What is the purpose of go to statement? Give an example. (4)

b) Write a program to compute the sum of the series $1+ x^2+ x^3+x^4+.....+ x^n$ (6)

PART C

Answer any two full questions, each carries 10 marks.

12 a) What are arrays? How are they advantageous when compared with normal variables? (4)

b) Write a C program to find the product of two matrices. (6)

13 a) Write a C program to count the number of words, vowels and consonants in a sentence entered by the user. (5)

b) Using a function write a C program to find the binary equivalent of an integer. (5)

14 a) Describe the various storage classes in C. (4)

b) Write a C program to find the largest element of each row of an *m* x *n* matrix and place it in the 1st column of the corresponding row. Use function. (6)

PART D

Answer any two full questions, each carries 10 marks.

15 a) What is chain of pointers? Illustrate using an example. (4)

b) Define a structure Employee with employee number, name and experience as members. Write a C program to print a list of all employees (from amongst 100 employees) having more than 3 years of experience. (6)

16 a) Write a C program using pointers to find the difference of two matrices A and B. (5)

b) A file contains students' records with roll number, name and mark. Write a program to read the contents of the file and display them . (5)

17 a) Differentiate between fscanf( ) and scanf ( ) functions (2)

b) Describe the fopen(), fclose(), fseek() and ftell() functions (4)

c) Write a Python program using function to search for an element in an array. (4)

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