

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**THIRD SEMESTER B.TECH DEGREE EXAMINATION(R&S), DECEMBER 2019**

**Course Code: MR201**

**Course Name: C PROGRAMMING**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 5 marks.*

- 1 Explain components of computer with neat block diagram.
- 2 Write notes on different types of computer networks.
- 3 Explain decision making and branching statements in C. Give syntax for each branching statement.
- 4 Differentiate between formal and actual arguments with example.
- 5 Write a program to calculate average of odd and even numbers in a given array of elements.
- 6 Discuss types of functions based on arguments and return values in C.
- 7 Define pointer. Write a program to find difference of two integer values using pointers.
- 8 Describe structures in C with example.

**PART B**

*Answer any three questions, each carries 10 marks.*

- 9 a) Explain different types of secondary storage devices with example. 5 Marks  
b) Write short note on memory hierarchy. 5 Marks
- 10 a) Discuss in detail about translators. 5 Marks  
b) Discuss in detail about any 5 input and output devices. 5 Marks
- 11 a) Define data types in C. Explain its various types. 5 Marks  
b) Write an algorithm to check given number is even or odd. Give its flow chart. 5 Marks
- 12 a) Explain different parameter passing mechanisms with example. 5 Marks  
b) Illustrate the use of go to statement with example. 5 Marks
- 13 a) Define recursion. Write a function to compute factorial using recursion. 5 Marks

- b) Write a short note on storage classes in C with example. 5 Marks

**PART C**

*Answer any two questions, each carries 15 marks.*

- 14 a) Write a short note on applications of arrays. Explain how to initialize one dimensional and two dimensional arrays. 5 Marks
- b) Write a program to find sum of even elements in a two dimensional array. 10 Marks
- 15 a) Write a program to check whether the particular character is present or not in the given string. 8 Marks
- b) Write a program to print count of vowels in the given string. 7 Marks
- 16 a) How union is different from structure in the case of memory allocation? Discuss in detail. 7 Marks
- b) Write a program to illustrate the comparison of structure variables. 8 Marks
- 17 a) Write short note on pointers and functions in C. 7 Marks
- b) Describe the operations in files. What are the input output functions in files? Explain. 8 Marks