

Reg No.: _____

Name: _____

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

Course Code: MR201

Course Name: C PROGRAMMING

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 5 marks.

- 1 Define Computer. What are the characteristics of Computer?
- 2 What are the functions of Operating System? Give example for Operating System.
- 3 Explain the structure of a C Program with example.
- 4 Write a program to check whether the given number is Armstrong or not using function.
- 5 List out application of Arrays. Write a program to search an element in an array.
- 6 Discuss compile time and run time initialization of arrays.
- 7 Differentiate between structure and union with example.
- 8 Define pointer in C. Explain the advantages of using pointers in C.

PART B

Answer any three questions, each carries 10 marks.

- 9 a) Explain memory hierarchy in computer. Discuss different types of memory. 4 Marks
- b) Explain different secondary storage devices. 6 Marks
- 10 a) Describe BIOS. 4 Marks
- b) Compare and contrast machine language, assembly language and high level language. 6 Marks
- 11 a) Categorize the operators in C. 5 Marks
- b) Write a program that will obtain the length and width of a rectangle from the user and compute its area and perimeter 5 Marks
- 12 a) Write a program to check the given no is Perfect or not using function. 6 Marks
- b) Illustrate the use of go to statement with example. 4 Marks
- 13 a) Write a program to print prime numbers within given limit. 5 Marks
- b) Differentiate between Library functions and user defined functions. 5 Marks

PART C

Answer any two questions, each carries 15 marks.

- 14 a) Differentiate between ordinary variable and an array. 5 Marks
b) Write a program to sort n elements in an array using function. 10 Marks
- 15 a) Explain character arrays. Write a program to check specified character is present in given string. 8 Marks
b) Write a program to check whether the given string is palindrome or not. 7 Marks
- 16 a) How we can declare and define structures in C. Give example. 8 Marks
b) Write a program to calculate the student wise total and store them as part of structure. 7 Marks
- 17 a) Write a program to determine the length of character string using pointers. 6 Marks
b) What do you understand by pointer initialization? How we can pass pointers to functions? Explain with example. 9 Marks