

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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
THIRD SEMESTER B.TECH DEGREE EXAMINATION(S), MAY 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 Which are the logical operators used in C language. Explain with example.  | (5)   |
| 2 With suitable example explain the syntax of switch -case statement in C language.  | (5)   |
| 3 Write a C program to read an array of integers and search for the occurrence of a given value.   | (5)   |
| 4 What is the use of a static variable? Explain with example.  | (5)   |
| 5 Define a structure and union with following as members - an integer variable, a character array having 20 characters, and a floating point variable. How many bytes are allotted for each? Illustrate and explain. | (5)   |
| 6 Write a C program to swap two variables using pointers.  | (5)   |
| 7 Which are the different options for opening a file in C. Explain any four with example.  | (5)   |
| 8 What are the advantages of Python as a programming language? Write a Python program to find the larger of two numbers.   | (5)   |

**PART B**

*Answer any two full questions, each carries 10 marks.*

- |   |       |
|---|-------|
| 9 a) Write an algorithm and draw flow chart for finding the number of numbers divisible by 3 between 100 and 200. | ( 10) |
| 10 a) Which are the basic data types in C language? How the memory allocation is done for each data type.         | ( 5 ) |
| b) Write a C program to swap two numbers without using third variable   | (5)   |
| 11 a) Write a C program to find the sum of the digits of a number.  | (5)   |
| b) Write a C program to print first 10 numbers of Fibonacci series.   | (5)   |

**PART C**

*Answer any two full questions, each carries 10 marks.*

- |   |     |
|---|-----|
| 12 a) Give the syntax and example for two methods of reading a string.  | (4) |
| b) Write a C program for multiplication of two matrices.  | (6) |
| 13 a) Write a C program to read a string and check whether it is palindrome or not.                                     | (5) |
| b) What are the advantages of recursive function? Write a recursive function using C to find the factorial of a number. | (5) |

- 14 a) What are the advantages of functions? Explain how it is implemented in C Language. (4)  
b) Write a C program to prepare a rank list based on marks for five subjects, using three separate functions to read the marks, prepare rank list and print the same. (6)

**PART D**

*Answer any two full questions, each carries 10 marks.*

- 15 a) Differentiate between '&' operator and '\*' operator in C with help of a suitable example. (3)  
b) Write a C program to sort an array of integers using pointers. (7)
- 16 a) Write a C program to accept a string using pointers and print the third character of the same. (3)  
b) Write a C program to read and write 10 integers to a file *number.txt*, open the file and copy the odd numbers to *odd.txt* and even numbers to *even.txt*. (7)
- 17 a) Write a Python program to print the sum and product of two real numbers. (5)  
b) Write a Python program to concatenate two strings. (5)

\*\*\*\*