

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.

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|----|---|------|
| 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.

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|----|---|-----|
| 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)
