

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
THIRD SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

Course Code: EE207

Course Name: COMPUTER PROGRAMMING

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 5 marks.

- | | | Marks | | | | | | |
|---------------------|--|---------------------|--------------------|-----------------|----------------|-----------|---------------------------|--|
| 1 | What is a compiler? How does it differ from an interpreter? | (5) | | | | | | |
| 2 | An electricity company charges people based on the number of units used. Input the number of units and calculate the bill amount and print using C program | (5) | | | | | | |
| | <table border="0"> <thead> <tr> <th><u>No. of units</u></th> <th><u>Rate/amount</u></th> </tr> </thead> <tbody> <tr> <td>Up to 100 units</td> <td>Rs. 1.80/-unit</td> </tr> <tr> <td>Otherwise</td> <td>Rs. 3.50/- extra per unit</td> </tr> </tbody> </table> | <u>No. of units</u> | <u>Rate/amount</u> | Up to 100 units | Rs. 1.80/-unit | Otherwise | Rs. 3.50/- extra per unit | |
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| 3 | Write a short note on array declaration and array initialization | (5) | | | | | | |
| 4 | Write a C program to find factorial of given number using recursive function. | (5) | | | | | | |
| 5 | Differentiate between structure and union with example. | (5) | | | | | | |
| 6 | Write a C program to swap the values of two variables using pointer. | (5) | | | | | | |
| 7 | Write a C program to read data from the keyboard, write it to a file, read the same data from the file and display on the screen. | (5) | | | | | | |
| 8 | Write a Python program to check whether a number is prime or not | (5) | | | | | | |

PART B

Answer any two full questions, each carries 10 marks.

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|----|---|------|
| 9 | a) Differentiate between ++ i and i ++ with the help of examples. | (4) |
| | b) Explain different data types in C with examples. | (6) |
| 10 | Write a C program to print prime numbers up to N. Draw flow chart also. | (10) |
| 11 | To initiate a group activity, a teacher decided to group the whole class of strength 60 into 6 groups according to the following rule | (10) |

Reminder (R)	Group
0	I
1	II
2	III
3	IV
4	V
5	Vi

Where R is the remainder when a student divides his/her Roll No. by 6. Write a C program to list group members of each group.

PART C

Answer any two full questions, each carries 10 marks.

- 12 Write a C program to multiply two matrices (10)
- 13 a) What is meant by recursive function? Give example? (5)
- b) Explain different string handling function in C with examples? (5)
- 14 What is storage classes in C and explain different storage classes in C with example? (10)

PART D

Answer any two full questions, each carries 10 marks.

- 15 a) Write a C program to find factorial of a number using pointer (6)
- b) What are the advantages of using pointers in C (4)
- 16 a) How does a structure differ from an array in C? (5)
- b) How is append mode different from write mode regarding files in C? (5)
- 17 a) Write a Python program to read time in sec and convert that to hr:min:sec. (5)
- b) Write a Python program to check whether the given year is leap year or not. (5)
