

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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**THIRD SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2017**

**Course Code: EE207**

**Course Name: COMPUTER PROGRAMMING (EE)**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 5 marks.*

- |   |  | Marks |
|---|--|-------|
| 1 | Differentiate between machine language, assembly language and high level languages? What is the difference between compiler and assembler? | (5)   |
| 2 | Write a C program to find the LCM and HCF of any two numbers entered by user.  | (5)   |
| 3 | Write a C program to reverse a string.   | (5)   |
| 4 | What are the 4 basic storage classes in C?   | (5)   |
| 5 | Differentiate between structure and union.   | (5)   |
| 6 | Write a C program to add two variables using pointers.   | (5)   |
| 7 | Explain how a new file is opened. What are the 3 modes while opening an existing file.   | (5)   |
| 8 | Write a Python program to reverse a given integer.   | (5)   |

**PART B**

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

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|----|--|-----|
| 9  | a) Explain any five kinds of operators in C.   | (5) |
|    | b) Draw a flowchart to find the sum of digits of an integer.   | (5) |
| 10 | a) If more than one kind of operator is present in an expression, explain the order of precedence.   | (5) |
|    | b) Write a C program to print the prime numbers between 101 and 500. Those numbers whose sum of digits is 5 need not be printed. Use 'while' loop in the program | (5) |
| 11 | a) Explain 'switch' and 'go to' statements in C with the help of examples  | (5) |
|    | b) Write a C program to print the following pattern using 'for' loop   | (5) |

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**PART C**

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

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| 12 | a) Explain how a 3 dimensional array is declared and initialised. How is a character array different from a string | (5) |
|    | b) Write a C program to count the number of characters, words and lines in a text                                  | (5) |
| 13 | a) Write a C program to find the product of two matrices   | (5) |

- b) Explain the differences between pass by value and pass by reference with the help of examples. (5)
- 14 a) Explain recursive function with the help of an example program. (5)
- b) Write a program to print all prime numbers between any two numbers entered by user, using functions. (5)

**PART D**

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

- 15 a) What is a pointer. How can you access a variable using chain of pointers? (5)
- b) Write a C program to sort an array using pointers. (5)
- 16 a) Write a C program to store the name and roll numbers of 10 students using structure. The name has to be then printed in the ascending order of roll numbers. (5)
- b) Explain the basic control statements in Python. (5)
- 17 a) Write a C program to copy the contents of one file to another. (5)
- b) How can a random part in a file be accessed? (5)

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