

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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY  
FOURTH SEMESTER B.TECH DEGREE EXAMINATION, JULY 2017**

**Course Code: AE202**

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

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer any two full questions. Each question carries 15 marks*

- 1 a) What are algorithms. Write an algorithm to find the largest of 3 numbers (4)
- b) Explain different classes of datatypes in C. (6)
- c) Which of the following are valid identifiers and if not why? (5)
  - (i) roll no (ii) in-charge (iii) \_yes (iv) int (v) m\_to\_2
- 2 a) Compare while and do-while with proper examples (4)
- b) Write a C program to find the number and sum of all integers greater than 100 and less than 200. (5)
- c) With proper examples, explain (i) break (ii) continue (iii) goto (6)
- 3 a) Draw the flowchart of switch statement. Write a C program to print the days of a week using switch. (4)
- b) What will be the output of the following codes (4)
 

(i) main() <pre> { int x=100; printf(“%d\n”,10+ x++); printf (“%d\n”,10+ ++x); } </pre>	(ii) main() <pre> { int x=100,y=200; printf(“%d\n”,(x&gt;y)?x:y); } </pre>
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- c) Write a C program to find the LCM of two numbers. (4)

**PART B**

*Answer any two full questions. Each question carries 15 marks*

- 4 a) Write a C program to implement bubble sort. (5)
- b) Which are the different string handling functions. Explain with examples (4)
- c) What is recursion. Write a program to find the factorial of a given number using recursion. (6)

- 5 a) Compare structure and union (3)
- b) Write a C program using pointers to compute the sum of all elements stored in an array. (5)
- c) Write a C program to copy the content of one file to another file (7)
- 6 a) What are pointers? How can we access the address of a variable with pointers? Explain? (5)
- b) Write a function to swap the values of two variables using pointers. (5)
- c) A file named DATA contains a series of integer numbers. Write a C program to read these numbers and then write all even numbers to another file called EVEN (5)

### **PART C**

*Answer any two full questions. Each question carries 20 marks*

- 7 a) Compare the use of different loops in python and C (9)
- b) Write a python program to calculate the area of a triangle. (6)
- c) Describe dictionary methods with example (5)
- 8 a) Write a python program to add 2 matrices using list (10)
- b) Explain how exceptions are handled in python. Illustrate with examples. (10)
- 9 a) Write a python program to find the largest of n numbers using function (8)
- b) What are lists. How can we access elements in a list? Compare it with the tuple (5)
- c) Write a python program to create a dictionary containing roll numbers and names of 5 students. Display the contents after arranging the students in ascending order (7)

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