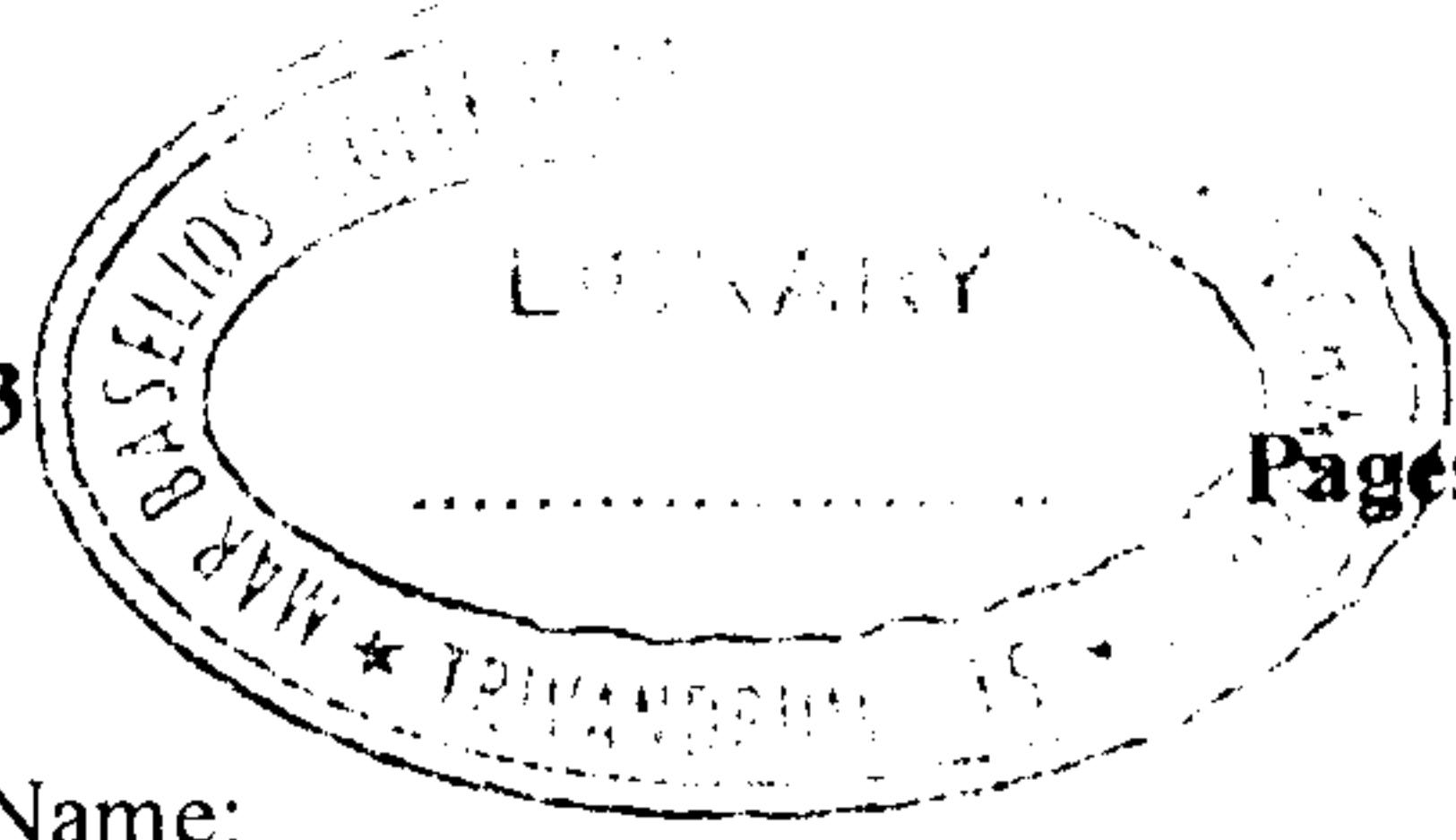


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**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

Third semester B.Tech degree examinations (S) September 2020

**Course Code: EE207**

**Course Name: COMPUTER PROGRAMMING**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 5 marks.*

Marks

- 1 How does x++ differ from ++x? Explain with suitable example. (5)
- 2 Explain goto and label statements with an example. (5)
- 3 Write a C program to find length of a string without using string handling function. (5)
- 4 Discuss the auto and static storage class with example. (5)
- 5 Explain following terms associated with pointer (i) Chain of pointers (ii) Pointer expression (iii) Scale factor. (5)
- 6 Write a C program to find the largest element in array using pointer. (5)
- 7 Distinguish between following functions (i) getch and getchar (ii) printf and fprintf (iii) feof and ferror (5)
- 8 Explain the following control statements in python. (i) for loop (ii) if elif else. (5)  
Also write their syntax.

**PART B**

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

- 9 a) List the different operators in C. Discuss about conditional operator. (5)  
b) Draw a flow chart to check given number is palindrome or not. (5)
- 10 a) Railway Department Charges are given below: (6)

<u>Distance(kms)</u>	<u>Rate/km</u>
Upto 30	Rs. 5/-
31-50	Rs. 8.25/-
>50	Rs. 10/-

Senior citizens (age $\geq$ 60) are given a concession of 30% on the fare. Write a program to print the details of a passenger's name, age, distance traveled and the ticket fare.

- b) What is the difference between compiler and interpreter? (4)
- 11 Write a C program to find the solution of a quadratic equation (real and distinct, equal or complex roots) using switch construct. Draw the flow chart also. (10)

### PART C

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

- 12 a) Write a C program to read a matrix  $A$  and find the product  $A * A^T$ . (8)
- b) Discuss any two string handling function. (2)
- 13 a) Write a C program to print first  $n$  Fibonacci numbers using recursive function. (5)
- b) Explain the differences between pass by value and pass by reference with the help of example. (5)
- 14 Write a C program to read the array elements and to sort them in ascending order. Use functions to read, sort, and print the array. (10)

### PART D

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

- 15 A student database stores following information about students in a class: Roll number, name, gender and CGPA. Write a program to prepare a rank list based on CGPA. Also prepare a list of students having CGPA less than 7. (10)
- 16 a) What is the output of the program: (5)
- ```
main()
{
    int m[2]={100,200};
    int a,b,c,*p=m;
    a=*p;
    b=*(p+1);
    c=(*p+1);
    printf("%d %d %d", a,b,c);
}
```
- b) Write a program to read integer numbers from one file and then save into another file. (5)
- 17 a) Write a python program to check the largest among the three numbers. (4)
- b) Explain user defined functions in python with syntax. Write your own function to print "Hello Python". (6)

