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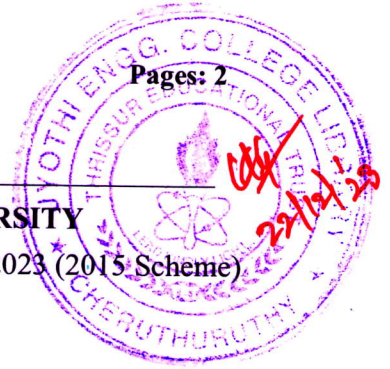
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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S3 (S, FE) / S1 (PT) (S, FE) Examination December 2023 (2015 Scheme)



Course Code: EE207

Course Name: COMPUTER PROGRAMMING

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 5 marks.

Marks

- 1 Explain the syntax of printf() and scanf() in C with the help of an example (5)
- 2 With the help of an example explain goto and continue statement used in C. (5)
- 3 Write a C program to reverse a string without using standard string library functions. (5)
- 4 Write a C program to find the cube of a number entered by the user using a user defined function. (5)
- 5 Explain structure definition and structure declaration in C with the help of an example. (5)
- 6 Explain the concept of chain of pointers in C with an example. (5)
- 7 Explain with the help of examples, fopen() and fclose() used in C. (5)
- 8 Write a python program to find the largest among the given three numbers. (5)

PART B

Answer any two full questions, each carries 10 marks.

- 9 a) Draw a flow chart showing how to check whether a given year is a leap year. (5)
b) With the help of examples explain the conditional operator, arithmetic operators and logical operators used in C. (5)
- 10 a) Write a C program to check whether the integer entered by the user contains a digit 1 or not. (5)
b) Write a C program to evaluate the series $1 + x + x^2 + x^3 + \dots$ up to n terms, here both x and n are the values entered by the user. (5)
- 11 a) Write an algorithm to find the roots of a quadratic equation. (5)
b) Write a C program to check whether the number entered is a prime number. (5)

PART C

Answer any two full questions, each carries 10 marks.

- 12 a) Write a C program to read a word and convert the capital case letters to lower case and display the result. (5)
b) Write a C program to find and display the product of any two matrices. (5)
- 13 a) Explain recursive function with the help of an example (2)
b) Explain various storage classes in C with the help of examples (8)
- 14 a) Write a C program to find the smallest element present in an integer array (5)
b) Write a C program to find and display the sum of square of elements present in an array with a user defined function by passing array. (5)

PART D

Answer any two full questions, each carries 10 marks.

- 15 a) Explain the concept of union in C with the help of an example. How is it different from structure in C. (5)
b) Write a C Program to enter **n** (here **n** is some integer entered by the user) number of real numbers into an array and then compute the sum and display the entered elements and their sum using the concept of pointers. (5)
- 16 Write a C program to write details of **n** (here **n** is some integer entered by the user) employees which include his name, age and salary into a file. Also, display the details entered by reading from the same file which is used for writing the details. (10)
- 17 a) Write a C program to calculate and display the area of a rectangle after defining a structure variable with structure members as length and breadth and their initial values as zero. (5)
b) Write a python program to find factorial of a number and display the result using user defined function. (5)
