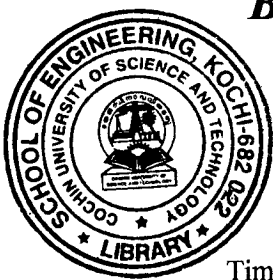


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***B.Tech. Degree II Semester Regular and Supplementary/  
I Semester Supplementary Examination May 2017***

**CE/EE/ME/SE GE 15-1201 A & CS/EC/IT GE 15-1101 B  
COMPUTER PROGRAMMING  
(2015 Scheme)**



Time: 3 Hours

Maximum Marks: 60

**PART A**(Answer *ALL* questions)

(10 × 2 = 20)

- I. (a) What are the categories of software?
- (b) Explain the functions of a compiler, loader and linker.
- (c) Briefly explain the precedence of operators in C.
- (d) What is Automatic type conversion?
- (e) Find the value of Monday and Wednesday in the following statement.  
enum month{January, February = 2, April = 0, May}. Give the explanation of your answer.
- (f) Write a program to evaluate  $x^3 + 2x + 1$
- (g) Write a program to check whether a given string is a palindrome or not.
- (h) Explain the control statements in C language.
- (i) Explain any two functions for performing dynamic memory allocation.
- (j) Briefly describe the file handling functions.

**PART B**

(4 × 10 = 40)

- II. Explain the basic units and working of a digital computer system. What are the different types of memory? (10)

**OR**

- III. What is a flowchart? Explain the role of flowchart in program design with the help of an example. (10)

- IV. Write a program to generate Fibonacci series between 1 and 100 and also find its sum. (10)

**OR**

- V. (a) Write a program to generate a series given below for 'n' rows. (5)

```

1
1   2
1   2   3

```

- (b) Write a program to check whether a given number is an Armstrong number or not. (5)

(P.T.O.)

- VI. What is binary search? Write a program to sort a set of numbers and implement binary search. (10)

**OR**

- VII. (a) What is recursion? Give an example. (5)  
(b) Write a program to add two 2D matrices. (5)

- VIII. Write a program to find the transpose of a matrix using pointer check whether matrix is symmetric or not. (10)

**OR**

- IX. (a) Explain command line arguments with an example. (5)  
(b) Write a program to count number of characters in a file. (5)