

Code: CS3T3

II B.Tech - I Semester–Regular/Supplementary Examinations
November 2016

PROGRAM DESIGN
(COMPUTER SCIENCE AND ENGINEERING)

Duration: 3 hours

Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

- a) Write the general form of a C program.
- b) Write the syntax of functions with arguments.
- c) Differentiate actual arguments and formal arguments.
- d) Define scope and lifetime of a variable.
- e) Define recursion.
- f) Differentiate structure and union.
- g) Define enumerated data type.
- h) Write the functionality of **malloc** function in C.
- i) How do we pass pointer as a function argument?
- j) Define macro with example.
- k) Define **argc** and **argv[]**.

PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2.

- a) Explain how the structured charts will be helpful in top down design with example? 8 M

- b) Explain functions with arguments in detail. 8 M
- 3.
- a) Write a program to perform simple mathematical operations using multiple functions. 8 M
- b) Illustrate how the flow of control changes between the main function and a function sub program? 8 M
- 4.
- a) Explain string library function with suitable examples. 8 M
- b) Explain problem solving with structured types with an example. 8 M
- 5.
- a) Briefly explain dynamic memory allocation with suitable examples. 8 M
- b) Explain data I/O using text and binary files. 8 M
6. Explain in detail how complexity can be managed using abstraction? 16 M