

END TERM EXAMINATION

FIRST SEMESTER [B.TECH] FEBRUARY-MARCH 2023

Paper Code: ICT-101

Subject: Programming for Problem Solving

Time: 3 Hours

Maximum Marks: 75

Note: Attempt five questions in all including Q.No.1 which is compulsory.

- Q1 Attempt all questions (5x3=15)
- a) What is the difference between compilation and interpretation? Explain the process of execution of a programme.
 - b) What is data type? Explain different data types used in C.
 - c) What is loop control statement? Explain with example.
 - d) What is the difference between structure and union?
 - e) What is stack? Explain with example.
- Q2 a) What are modify operators? Explain it's use with example. (7.5)
- b) Explain the concept of Switch case statement with proper example. (7.5)
- Q3 What is multi dimensional arrays. Write a program to multiply two matrices by accepting two matrices as a input from the user. (15)
- Q4 a) What is pointer? Explain pointer arithmetic concept with example. (7.5)
- b) Write a program to explain the concept of call by value and call by reference. (7.5)
- Q5 a) Define structure? Explain the concept of passing structure through functions with example. (7.5)
- b) What is file handling in C? How many ways or modes a file can be opened. Explain with example. (7.5)
- Q6 a) What is self referential structure? Explain with example. (7.5)
- b) What is dynamic memory allocation? Explain. (7.5)
- Q7 a) Write a program for selection sort and explain the logic (7.5)
- b) Explain the logic of binary searching algorithm. (7.5)
- Q8 a) What is storage classes available in C. Explain the concept (7.5)
- b) Explain the concept of single linked list with example. (7.5)
