

GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER- 1st / 2nd • EXAMINATION – SUMMER 2018

Subject Code: 110003

Date: 23-05-2018

Subject Name: Computer Programming & Utilization

Time: 02:30 pm to 05:00 pm

Total Marks: 70

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain Various Symbol used in Flowchart. Draw a flowchart to find factorial of given no. **07**
(b) Explain basic structure of C program with example. **07**
- Q.2** (a) Explain different operators in C. **07**
(b) Explain entry controlled and exit controlled loop with suitable example **07**
- Q.3** (a) Write a program to find sum of digits of a number. **07**
(e.g. input number 9834, output is : 9+8+3+4=24)
(b) Write a program for simple calculator(+, -, *, /, %) using switch-case statement. **07**
- Q.4** (a) Define an array. Explain declaration and initialization of one dimensional, two dimensional and multi-dimensional array. **07**
(b) Explain elements of user defined functions with suitable example **07**
- Q.5** (a) Explain following string handling functions: **07**
I. strcat()
II. strcmp()
III. strlen
IV. strstr()
V. strcpy()
(b) What is structure? How it is different from union? **07**
Explain nested structure with example.
- Q.6** (a) What is pointer? How Pointer is initialized? How it is different to array? **07**
(b) List and explain File Management Functions of C. **07**
- Q.7** (a) Write a program to print following pattern. **07**
1
2 3
4 5 6
7 8 9 10
(b) Write a program to add two 2×2 matrix. **07**