

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEMESTER– 1st / 2nd(OLD) EXAMINATION – SUMMER 2017

Subject Code:110003**Date: 03/06/2017****Subject Name: Computer Programming and Utilization****Time:2:30 pm to 5:00 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 types of programming languages. Differentiate between compiler and interpreter. **07**
 (b) Define flowchart and algorithm and give one example of each. **07**
- Q.2** (a) Explain the structure of a C program giving example. **07**
 (b) Name the operators in C language and give the precedence and associativity of each. **07**
- Q.3** (a) Write a program for simple calculator using switch-case statement. **07**
 (b) Explain nested if-else statement giving example. **07**
- Q.4** (a) Write a program to print **07**
 1
 1 2 1
 1 2 3 2 1
 (b) Define array. Write a program to enter elements in a 2×2 array and print the same. **07**
- Q.5** (a) Write a program to reverse a string without using inbuilt string reverse function. **07**
 (b) What is a user defined function? Explain function call by reference giving example. **07**
- Q.6** (a) What is dynamic memory allocation? Define malloc (), calloc (), free () and realloc (). **07**
 (b) Explain scope and lifetime of a variable in detail. **07**
- Q.7** (a) Define structure. Write structure that named book which consists of three data fields, namely name, price and pages. How can we access structure variables? **07**
 (b) What is a File? Explain the entire file handling functions and mode of a File. **07**
