Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– 1st / 2nd (OLD SYLLABUS) EXAMINATION – SUMMER 2015

Subject Code:110003 **Date: 10/06/2015**
Subject Name: COMPUTER PROGRAMMING AND UTILIZATION
Time: 10.30am-01.00pm **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)** Select an appropriate answer from multiple answers. **07**

1. C programming is _____ level language
   (1) Middle level (2) High Level (3) Low lever (4) None of These
2. What is input given to Compiler?
   (1) Object Code (2) Executable Code (3) C Program source Code
   (4) None of These
3. Which is of the flowing is an invalid assignment operator?
   (1) a %= 10 (2) a /=10 (3) a!= 10 (4) None of These
4. The single character input/output function are?
   (1) scanf( ) and printf( ) (2) getchar( ) and printf( )
   (3) scanf( ) and putchar( ) (4) getchar( ) and putchar( )
5. What is the outputof C Statement 7.5 % 3?
   (1) 1 (2) 1.5 (3) No output (4) Error
6. We declare a function with _____ if it does not have any return type
   (1) long (2) double (3) void (4) int
7. The break statement is used to exit from:
   (1) a DO loop (2) a For loop (3) a SWITCH statement (4) All of these

(b) What is flowchart? Draw a flowchart to find largest among three numbers. **07**

Q.2 **(a)** Explain the different data types and mathematical expressions of C language with example. **07**

(b) Write a C Program to calculate the area of a Circle. The formula to calculate the area is: Area = π × r2 where r is the radius of the circle & π value is 22/7. **07**

Q.3 **(a)** Explain various types of loop available in C programming language with example. **07**

(b) Write a C Program to print half pyramid as using * as shown in figure below. **07**

```
*
* *
* * *
* * * *
* * * * *
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Q.4 **(a)** What is function? Explain the function definition, function prototype and function call with relative example. **07**

(b) Write a C program to call a function to find sum of first n natural numbers using recursion. **07**
Note: Positive integers are known as natural number i.e. 1, 2, 3….n

Q.5	**(a)**	What is pointer in C? Give its benefits also explain Array of pointer with relative example.	**07**
	(b)	What is file handling in C? Explain Naming a file, Opening a file, Reading from a file, Writing data into a file and Closing a file with its function.	**07**
Q.6	**(a)**	Describe following string functions in C-Language. 1. strcpy( ) 2. strcat( ) 3. strcmp( )	**07**
	(b)	Write a C program to Concatenate two strings.	**07**
Q.7	**(a)**	Defines union and a structure in C? Explain with relative examples and shows its differences in your examples.	**07**
	(b)	Write a C Program to store information (Name, Roll No., and Marks) of 10 students using structure	**07**

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