

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER– 1<sup>st</sup> / 2<sup>nd</sup> (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:  $\text{Area} = \pi \times r^2$  where r is the radius of the circle &  $\pi$  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 **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. **07**  
1. strcpy()      2. strcat()      3. strcmp()
- (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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