

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: $\text{Area} = \pi \times r^2$ 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**
- ```
*
* *
* * *
* * * *
* * * * *
```
- 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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