

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER- 1st / 2nd EXAMINATION (NEW) – SUMMER 2018

Subject Code: 2110003

Date: 23-05-2018

Subject Name: Computer Programming and Utilization

Time: 02:30 pm to 05:00 pm

Total Marks: 70

Instructions:

1. Question No. 1 is compulsory. Attempt any four out of remaining Six questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1	Objective Question (MCQ)	Mark
		07
(a)		
1.	Keyboard is the _____ type of device (a) Input (b) Pointing (c) Output (d) Sound	
2.	The storage of a character variable is _____ (a) 2 byte (b) 1 byte (c) 8 byte (d) 0 byte	
3.	What should be written in the program to get newline on the screen? (a) printf("\n"); (b) echo "\\n"; (c) printf('\n'); (d) printf(" \\n ");	
4.	Which of these have highest precedence? (a) () (b) ++ (c) * (d) >>	
5.	For loop is _____. (a) Function Controlled Loop (b) Entry Controlled Loop (c) Exit Controlled Loop (d) None of these	
6.	In flowchart for what purpose \diamond symbol is used? (a) Processing (b) Condition (c) Data flow (d) Input/output	
7.	The format string to accept a string is (a) %c (b) %d (c) %f (d) %s	
(b)		07
1.	_____ is generally used to increase the apparent size of physical memory. (a) Secondary memory (b) Virtual memory (c) Hard-disk (d) Disks	
2.	File manipulation functions in C are available in which header file? (a) streams.h (b) stdio.h (c) stdlib.h (d) files.h	
3.	What will be the output of following code. { int x = 10, y=15; x = x++; y = ++y; printf("%d, %d \n" , x, y); }	
	(a) 10, 15 (b) 10, 16 (c) 11, 16 (d) 11, 15	

- 4 Array index start at (a) 1 (b) User Defined (c) 0 (d) None of above
5. Which of the following operator is used to select a member of a structure variable
 (a) .(dot) (b) ,(comma)
 (c) : (colon) (d) ;(semicolon)
6. Address stored in the pointer variable is of type _____
 (a) Character (b) Integer
 (c) Floating (d) Array
7. ____ converts the programs written in assembly language into machine instructions.
 (a) Machine compiler
 (b) Interpreter
 (c) Assembler
 (d) Converter
- Q.2** (a) Name the major components of computer system and give their function. **03**
 (b) List out the operators used in C language and explain any three with example **04**
 (c) 1. Define algorithm and explain different symbols used in flowchart. **03**
 2. Draw a flow chart that shows how to find root of quadratic equation **04**
 ax^2+bx+c .
- Q.3** (a) Describe the four basic data types. How could we extend the range of values they represent? **03**
 (b) Define variable and constant. Explain different types of constants. **04**
 (c) Write a C Program to convert temperature from Fahrenheit to Celsius and vice versa. **07**
- Q.4** (a) What is array? Give example and advantages of array. **03**
 (b) Explain: 1. Nesting if-else statement 2. Use of break statement **04**
 (c) Write a program in 'C' to print the following pattern using loop statement. **07**
 1
 2 2
 3 3 3
 4 4 4 4
 5 5 5 5 5
- Q.5** (a) Explain how string is defined in C. List the various inbuilt string functions. **03**
 (b) What is pointer? Explain how pointers are declared and initialized. State its advantages. **04**
 (c) Write a C program to read 10 numbers from user and store them in an array. Display Sum, Minimum and Average of the numbers. **07**
- Q.6** (a) What is structure? Explain with example how to declare a structure and how to initialize it. **03**
 (b) What is dynamic memory allocation? Show the use of malloc() and calloc() function with their syntax. **04**
 (c) Explain nested structure and array of structure with example. **07**
- Q.7** (a) Explain recursive function with proper syntax with small example. **03**
 (b) Describe file management? List the various file handling operations in c **04**
 (c) Explain call by value (pass by value) and call by reference (pass by reference) with examples in brief. **07**
