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Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-1/2 (NEW) EXAMINATION - WINTER 2017

Subject Code: 2110003 Date: 05/01/2018

**Subject Name: Computer Programming and Utilization** 

Time: 10:30 AM TO 01:00 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.

a) 5

c) 4

```
Mark
Q.1
              Objective Question (MCQ)
                                                                                            07
        (a)
              Which one is an input device?
        1.
                   a) Monitor
                                                    b) Printer
                   c) Mouse
                                                    d) Plotter
        2.
              Which the following is an application software?
                   a) Compiler
                                                    b) MS Word
                   c) Assembler
                                                    d) Interpreter
              What is the value of expression 4/9 in C?
        3.
                                                    b) 0
                   c) 0.444
                                                     d) Error
        4.
              A declaration float a, b; occupies how much memory?
                   a) 2 bytes
                                                    b) 4 bytes
                   c) 8 bytes
                                                    d) 16 bytes
        5.
              To round off x, which is a float, to an int value, which one is correct?
                   a) y = (int)(x+0.5);
                                                    b) y = int(x+0.5);
                                                    d) y = (int)((int)x+0.5);
                   c) y = (int)x + 0.5;
              What is the output of following C code?
        6.
              int k;
              for(k=1;k>=10;k++);
              printf("Hello");
                   a) prints "Hello" 10 times
                                                         b) prints nothing
                                                         d) prints "Hello" 1 time
                   c) prints "Hello" infinite times
              What is the output of 16 >> 2?
        7.
                   a) 4
                                                    b) 32
                                                    d) 64
                   c) 8
                                                                                            07
        (b)
        1.
              Which one is the correct syntax of for loop?
                  a) for(initialization,condition,increment/decrement)
                  b) for(initialization; condition; increment/decrement)
                  c) for(condition,condition,increment/decrement)
                  d) for(condition;initialization;increment/decrement)
        2.
              What is the output of following code:
              void main()
               enum day{Mon,Tues,Wed,Thu,Fri,Sat,Sun};
                printf("%d",Fri);
                getch();
```

b) Error

d) Fri

3.		Which function should be used to release allocated memory which is not needed?				
			b) free ()			
		* * * * * * * * * * * * * * * * * * * *	d) unalloc ()			
	4.	What is the output of following C code	,			
	••	int main()				
		<i>f</i>				
		int *ptr, $a = 10$ ;				
		ptr = &a				
		*ptr += 1;				
		printf("%d,%d/n", *ptr, a);				
		}				
			b) 10,11			
			d) 11,11			
	5.	Break statement is used for				
		a. Quit a program				
		b. Quit the current iteration				
		c. Both a and b				
		d. None of the above				
	6.	Which function is used to put the file pointer at the desired location in the file?				
		a) fseek()	b) rewind()			
		* * * * * * * * * * * * * * * * * * * *	d) fptr()			
	7.	Which data type allows storage of sam	* <del>*</del>			
		, <u> </u>	b) Union			
		c) Void	d) both a and b			
Q.2	(a)	n) Draw a flowchart to find out smallest number from given three numbers. 03				
Q. <u>2</u>	(b)	List and explain fundamental data type	<del>-</del>	03		
	(c)					
	(-)	r				
Q.3	(a)	Write a program to find out an area of a circle				
	<b>(b)</b>	What is type conversion? List and explain type conversion supported by C 04				
		language with example.				
	<b>(c)</b>	Explain following operators used in C	language.	07		
		1) Logical	2) Increment/Decrement			
		3) Bitwise	4) Relational			
<b>Q.4</b>	<b>(a)</b>					
	<b>(b)</b>	What is Array in C language? How is it different from Structure in C				
		language? State advantages and disadvantages of Array.				
	<b>(c)</b>	Write a program to display given pattern 07				
		* ##				
		* * *				
		####				
		* * * * *				
		#####				
		* * * * * *				
_						
Q.5	(a)	Explain Entry Controlled Loop and Ex	<u>=</u>	03		
	<b>(b)</b>	Write a program to check whether a given string is palindrome or not. <b>04</b>				
	<b>(c)</b>	Explain following string manipulation	runctions.	07		
		strcmp(), strlen(), strcat(), strstr()				
Q.6	(a)	Differentiate Structure vs. Union		03		
•	(b)	What is Recursion? Write a program	to find factorial of a given number	04		

using recursion.

	(c)	What is function? Explain the function definition, function prototype and function call with relative example.	07
Q.7	(a)	Explain fopen () and fclose () file handling functions	03
_	<b>(b)</b>	Write a <b>program</b> to print the <b>program</b> itself.	04
	(c)	What is Pointer in C? Explain its advantages. Also write a program to swap two elements using pointer.	07
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