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GUJARAT TECHNOLOGICAL UNIVERSITY

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BE - SEMESTER–I &II (NEW) EXAMINATION – SUMMER-2019

Subject Code: 2110003 **Date: 10/06/2019**

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.**

Q.1 **Mark**

(a) Objective Question (MCQ) **07**

1. Which is output device?

(a) Barcode Reader (c) Scanner

(b) LCD (d) Keypad

2. C-Language is _____.

(a) Machine Dependent (c) Machine Independent

(b) Partially Machine Dependent (d) None of above.

3. Which one of following is volatile memory?

(a) SRAM (c) Flash

(b) EPROM (d) Hard disk

4. How many times following loop will be rotated?

```
int a = 10,  b = 1;
while(a>b)
{  a--;   b++; }
```

(a) 5 (c) 4

(b) 10 (d) 1

5. Which of the following is correct C statement to print variable a?

(a) printf(“a”); (c) printf(“%d”);

(b) printf(“%d”, a); (d) printf(“%a”);

6. Which one of following loop rotates infinite time?

(a) for(; ;) (d) only a and c

(b) do { …. } While(1<10); (e) all of a, b, c

(c) while (100)

7. Switch case statement cannot be applicable on _____ data type.

(a) int (c) enumerated

(b) char (d) float

(b) Objective Question (MCQ) **07**

1. Which one is invalid variable name?

(a) int_a (c) case_c

(b) temp1 (d) 1temp

2. Which one of following statement doesn’t increment variable a?

(a) a++ (c) ++a

(b) a += 1 (d) a = +1

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3. For following code, what should be value of X and Y? www.FirstRanker.com www.FirstRanker.com

```
M = 9;  N = 10;
X = M && N;
Y = M & N;
```

(a) X = 1, Y = 8
(b) X = 8, Y = 8
(c) X = 1, Y = 1
(d) None of above

4. What is output of following program ?

```
void main( )
{
   int z = 10;
   float z  = 10;
  printf("%d",z);
}
```

(a) 10.00
(b) Compile time error
(c) 10
(d) Run time error

5. The Function _____ obtains block of memory run time.
(a) malloc()
(b) Both malloc() and calloc()
(c) calloc()
(d) free()

6. Which of the following is true about FILE *fp
(a) FILE is keyword in C for representing files and fp is variable of FILE type.
(b) FILE is a structure and fp is pointer to structure of FILE type.
(c) FILE is stream
(d) FILE is buffered stream

7. Array and Structure can contain elements of _____ and _____ data type respectively.
(a) same, different
(b) different, Same
(c) same, same
(d) different , different

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Q.2 **(a)** Define (1) Higher Level Language (2) Lower Level Language (3) Machine Level Language **03**

(b) Sketch flowchart to convert seconds into hour, minute and second. (Hint : 3700 seconds => 1 hr , 1 minute , 40 second) **04**

(c) Describe assignment, sizeof( ) and ternary operator with example. **07**

Q.3 **(a)** Write C program to find area and perimeter of rectangle. **03**

(b) Describe Enumurated data type with example. **04**

(c) Write C program to get 20 data from user. Find sum, average, maximum and minimum number. **07**

Q.4 **(a)** Write a program to add first n numbers. Get value of n from user. **03**

(b) Describe switch case statement with example. **04**

(c) Write a C program to display given pattern **07**

```
1
1  2
1  2  3
1  2  3  4
1  2  3  4  5
```

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Q.5	**(a)**	Describe dynamic memory allocation. Give advantages and disadvantages of it.	**03**
	(b)	Describe break and continue statement with suitable example.	**04**
	(c)	Write a C program to do following task. (1) Take string from user and print in upper-case (2) Find string length without using strlen() function.	**07**
Q.6	**(a)**	Give merits and demerits of Union over structure.	**03**
	(b)	Design structure with following elements : Name of employ, basic, da, ta , deduction , net_salary Give the variety of way to access individual elements of structure..	**04**
	(c)	Describe types of function based on arguments and return type.	**07**
Q.7	**(a)**	Describe following file handling functions. (1) fopen() (2) fseek() (3) fgetc()	**03**
	(b)	Write C program to copy content of file "D:\home\avs.txt" into new text file "ftel.txt" in E drive .	**04**
	(c)	Define Pointer. How to initialize integer pointer ? Describe pointer to array with example.	**07**

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