Name :	A
Roll No. :	(A Barriel WX multip Ind Excland
Invigilator's Signature :	

### CS/M.TECH(MCP/MTT)/SEM-3/CS-301/2011-12

# 2011

### PRINCIPLES OF PROGRAMMING LANGUAGE

*Time Allotted* : 3 Hours

Full Marks: 70

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

# GROUP – A ( Objective Type Questions )

	Ans	wer all the questions :			10 × 1 = 10	
	i)	Dot matrix is a type of				
		a) tape	b)	printer		
		c) disk	d)	bus.		
	ii)	Fill in the blanks :				
		The form of storage called	locat	ted in the	e CPU is	
State True / False :						
iii) Most computer memories are volatile.						
		a) True	b)	False.		
	iv) A unary expression consists of only operand with operators.					
		a) True	b)	False.		
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- v) Write the syntax of scanf in C programming language.
- vi) Find the error, if any, in the following sentence: printf ("%d%d", &a, b);
- vii) What is the return type of malloc()?
- viii) What does the digit 5 signify in the following statement?

arr [ 5 ] = 10;

- ix) What do we use the following statement ?
   for ( ; ; )
- x) What is a null statement ?

#### **GROUP – B**

### (Short Answer Type Questions)

Answer any *three* of the following  $3 \times 5 = 15$ 

- 2. a) Differentiate between High level language and Assembly language.
  - b) In hard disk assembly, what is the purpose of read and write heads ? 3 + 2
- 3. a) Explain the different types of softwares with suitable example.
  - b) List the functions of operating system. 3+2

4. a) Define the different storage class in *C* language.

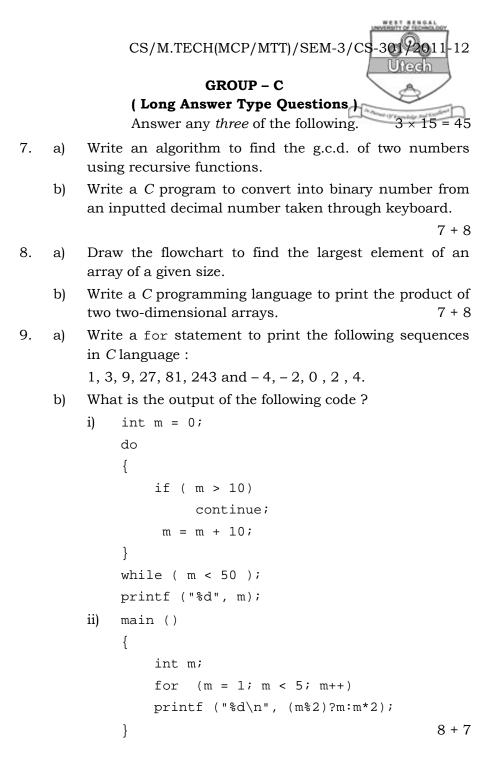
b) Define ternary operator in *C* language with example.

3 + 2

- 5. a) What is the difference between getchar() and get() functions?
  - b) Differentiate between break and continue statement in C language with example. 2 + 3
- 6. a) Convert  $(F3B \cdot B2)_{16} \rightarrow (?)_8$

### b) Compute the sum of FFFF + FFFF ? 3 + 2

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- 10. a) Write a *C* program to find the roots of a quadratic equation.
  - b) Write a program in C language to swap to numbers without using third variable. 8+7
- 11. a) Find error, if any, in the following code segments :

```
i) char str [10]
strucpy (str, "GOD", 3);
printf ("%s", str);
```

- ii) tyhpedef struct product
  {
  - char name[10];
  - float price;
  - } PRODUCT products[10];
- iii) If (x + y = z && y > 0)
  printf(" ");
- b) Write a *C* program to print following :
  - 1 2 2 3 3 3 4 4 4 4 5 5 5 5 5 5
- c) Write a *C* program to find the factorial of a number using recursion. 6+4+5

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