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Invigilator's Signature :	

CS/MCA/SEM-1/MCA-103/2012-13 2012 COMPUTER PROGRAMMING WITH C

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

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following :

 $10 \times 1 = 10$

i) Output of the following code

#define N 2 + 3
main()
{ int a;
 a = N*N;
 printf("%d",a);
}
a) 25 b) 13
c) 0 d) none of these.

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ii) Output of the following code :
 main()

CS/MCA/SEM-1/MCA-103/2012-13

{ int a [] = { 0, 1, 2, 3, 4 }; int k, *p; for (p = a, k = 0; p + k < = a + 4; p++, k++)printf("%d",*(p + k)); } 01234024 a) b) **Compiler error** none of these. c) d) iii) Output of the following code : main() { int a [2][3] = { 1, 2, 3, 4, 5, 6 }; printf("%d",*(* (a + 1) + 2)); } b) 2 a) 6 compiler error d) none of these. c)

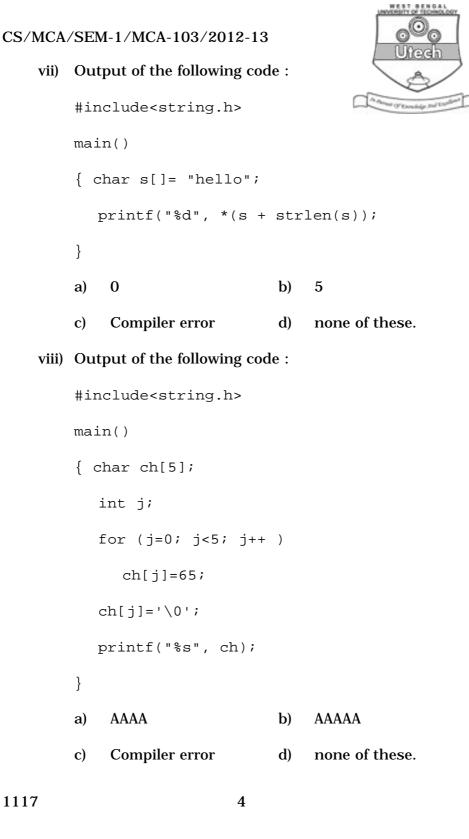
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iv) Output of the following code :
    #include<string.h>
    main()
    { int k = strcmp ("abc", "Abc");
    printf("%d",k );
    }
    a)
         0
                              b)
                                  65
                                  none of these.
    c) – 65
                              d)
    Output of the following code :
v)
    main()
    { printf(5 + "Fascimile");
    }
         Fascimile
                                  Mile
    a)
                              b)
         Compiler error
                                  None of these.
                              d)
    c)
    Output of the following code :
vi)
    main()
    { char s1[]= "hello";
       char s2[]= "hello";
       if(s1 = s2)
       printf("Equal");
       else
       printf("Unequal");
    }
         Equal
                                  Unequal
    a)
                              b)
                                  none of these.
         Compiler error
                              d)
    c)
```

1117

3

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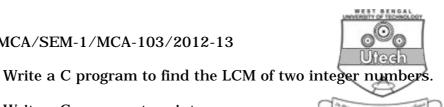
CS/MCA/SEM-1/MCA 13 Output of the following code : ix) main() { int a = 5; printf("%d",a--); } a) 4 b) 5 none of these. c) 0 d) Which of the following is a bitwise operator ? x) a) / b) + c) d) &. **GROUP – B** (Short Answer Type Questions) Answer any *three* of the following. $3 \times 5 = 15$ 2. What are the basic data types used in C language ? What are the user defined data types ? Explain briefly. 3. Compare the purpose of break statement with that of exit(). When do we use continue statement? 3 + 2Defferentiate between do-while and while startements with 4. suitable exmaple. Distinguish between i++ and ++i

statement.

3 + 2

1117 5 [Turn over

CS/MCA/SEM-1/MCA-103/2012-13



 $3 \times 15 = 45$

6. Write a C program to print

5.

1 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1

GROUP - C (Long Answer Type Questions) Answer any three of the following.

- 7. Distinguish between Automatic and Static variables. Write two C programs that calculate factorial of a number using recursion and iteration ? Write a function to sort the 2 + 5 + 8characters of the string passed to it as argument.
- 8. Write a C function to reverse the digits of an integer.

Write a complete C program for reading an employees file containing

{ emp number, name, salary, address }. Create an output file containing the names of those employees along with their salary and address whose salary is > 30,000. 5 + 10

- 9. Write a C function to reverse a string. Write a program in C which prints the smallest divisor of an integer, for example smallest divisor of 77 is 7. 7 + 8
- 10. What are the different functions used for file handing? Write a C program to create a file contains a series of integer numbers and then reads all numbers of this file and writes all odd numbers to other file called odd and writes all even numbers to a file called. 5 + 10

1117

CS/MCA/SEM-1/MCA-103/2012-13 11. Write short notes on any *three* of the following 3×5

- a) Structure
- b) Macro
- c) Recursion
- d) Pointer
- e) Storage classes in C.

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