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Question Paper Code : 75521

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Elective

Information Technology

XCS 019 — EXTREME PROGRAMMING

(Common to 5 Year M.Sc. Computer Technology/ M.Sc. Software Engineering)

(Regulation 2003)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   List the data types used in C#.

2.   Determine the value of the following expression in C#.

     Int i = 8, j = 5;

     Float x = 0.005, y = − 0.01;

     Char c = 'c' d = 'd';

     (i-3*j)%(c+2*d)/(x-y).

3.   Give an example for method overloading in C#.

4.   Use a foreach loop for printing your name 100 times.

5.   Declare a two dimensional array to hold a list of strings in C#.

6.   What are the rules for type conversions in C#?

7.   Give the syntax for defining a method in C#.

8.   Differentiate static and dynamic polymorphism.

9.   How will you instantiate a delegate?

10. Write down the functionality of the four exception handling keywords in C#.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the relational operators used in C# with example. (8)

    (ii) Name the different types of statements available in C#. Write their composition with example. (8)

Or

    (b) (i) Explain the structure of a C# program. (8)

    (ii) How will you define a class and create number functions and member variables in C#? (8)

12. (a) (i) Write a C# program to calculate the factorial of a number using recursive method call. (8)

    (ii) Differentiate pass by value and pass by reference using an example for each. (8)

Or

    (b) (i) Write a simple C# program to display the name of the day when the day number is given as input. Use switch-case statement to do the same. (8)

    (ii) Discuss on the various elements associated with a method in C#. (8)

13. (a) (i) Write a C# program to sort a list of numbers using arrays. (8)

    (ii) Discuss on enumeration variable types with an example. (8)

Or

    (b) (i) Discuss on the properties and methods available in string class. (8)

    (ii) Write a C# program to find out the maximum value among a set of values using array. (8)

14. (a) (i) Write a C# program by creating a base class shape and write two derived classes rectangle and triangle to calculate the area of the shape. (8)

    (ii) Explain operator overloading with an example C# program. (8)

Or

    (b) (i) Where do you use abstract classes? Explain the creation of an abstract class with an example. (8)

    (ii) "C# does not allow multiple inheritances whereas it allows multiple interfaces" Justify this statement. (8)

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15. (a) (i) Explain the thread life cycle and commonly used methods of thread class. (8)

(ii) Discuss on the predefined exception classes derived from the System. System Exception class. (8)

Or

(b) Write short notes on :

(i) Formatting output (6)

(ii) Multicast delegates (5)

(iii) Types of errors. (5)

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