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Question Paper Code: 35566

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Elective

Software Engineering

ESE 517 — EXTREME PROGRAMMING

(Regulations 2010)

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

$$PART A - (10 \times 2 = 20 \text{ marks})$$

- 1. Define termination status code and state its purpose.
- 2. What is unboxing and how it is achieved in C#?
- 3. Name the four types of method parameters in C#.
- 4. How does the for each statement differ from the for statement?
- 5. Differentiate Array List class from an Array class.
- 6. What is enumeration and how is it useful in C# programming?
- 7. Define a static constructor and state how it is different from non-static constructor?
- 8. How reusability is achieved in C#?
- 9. Enumerate the steps involved in creating and using delegates.
- 10. Why is a proper ordering of catch blocks necessary in C#?

PART B —
$$(5 \times 16 = 80 \text{ marks})$$

11. (a) Explain the architecture of .NET framework with a neat diagram. (16)
Or

- (b) (i) What are literals? Describe the types of literals in detail. (8)
 - (ii) What are the special operators in C#? Explain each with suitable example. (8)

| 12. | (a) | (i) | Illustrate switch statement with suitable example. (8) | |
|--------|-----|-------|--|---|
| | | (ii) | What is a modifier? List the various method modifiers in C#. (8) | |
| | • | | Or | • |
| | (b) | · (i) | Explain method overloading in C# with suitable example, (10) | , |
| • | - | (ii) | Write a method in C# that takes three values as input parameters and return the largest of the three values. (6) | |
| 13. (à | (a) | (i) | Explain any six string class methods with suitable examples. (8) | |
| | | (ii) | What is nesting of structure? Illustrate nesting of structure with suitable example. (8) | |
| | • | | Or | - |
| | (b) | (i) | Design a structure data type named 'city' to contain the names of the cities and their population size. Develop a C# program using this structure to store population details of N cities (N is the input) and display them in the descending order of population size along with city name. | |
| | | (ii) | What is a variable size array and how is it different from a rectangular array? Explain. (6) | |
| 14. | (a) | (i) | Explain different types of constructors in C# with examples. (10) | |
| | | (ii) | State the characteristics of abstract class and abstract method. (6) Or | |
| | (b) | (i) | Describe multiple and hierarchical inheritance with suitable examples. (8) | |
| | - | (ii) | What is late binding and how it is achieved in C#? Illustrate with an example. (8) | |
| 15. (a | (a) | (i) | Describe the syntax of a delegate declaration and give two examples of delegate declaration. (8) | • |
| | | (ii) | What is event handler and how it is designed? Illustrate with an example. (8) | |
| | | | Or | |
| | (b) | (i) | Write C# program to handle an exception of type 'Argument Exception' effectively. (8) | |
| | | (ii) | Illustrate any two methods supported by console input stream with examples. (8) | |