

**B.C.A. SEM-V (2014 COURSE) CBCS : WINTER - 2017**  
**SUBJECT: C# PROGRAMMING**

Day : Tuesday  
Date : 14/11/2017

Time: 02.00 PM TO 05.00 PM  
Max. Marks: 100.

**W-2017-1620**

**N.B.:**

- 1) Attempt any **FOUR** questions from Section-I and any **TWO** questions from Section-II.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the **RIGHT** indicate full marks.

**SECTION-I**

- Q.1** What is the need of programming loops? Explain in detail various C# programming loops. (15)
- Q.2** Discuss various types of C# operators in detail. (15)
- Q.3** What is meant by delegates in C#? Illustrate with suitable example. (15)
- Q.4** What is polymorphism? Explain in detail compile time and run time polymorphism. (15)
- Q.5** Explain in detail the following access modifiers with example: (15)
- a) Public
  - b) Private
  - c) Protected
- Q.6** Describe the concept of 'Constructor' in detail with their types. (15)
- Q.7** Write short notes on any **THREE** of the following: (15)
- a) Sealed class
  - b) 'var' variable
  - c) Interface
  - d) LINQ

**SECTION-II**

- Q.8** a) Write C# program to sort given input array values in odd and even numbers. Display both sorted arrays separately. Input array values: 12, 17, 23, 40, 9, 13, 52, 45, 45. (10)
- b) Write C# program to display prime numbers from 1 to 25. (10)
- Q.9** Write C# program to transpose given matrix elements. Make necessary assumption for order of matrix. (20)  
(Transpose operation: Interchanging row values and column values.)
- Q.10** a) Write a C# program to reverse a given string. (10)
- b) Design simple calculator using switch statement in C#. (10)

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