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BCA Examination 2018-19

(Fifth Semester)

.NET FRAMEWORK AND C#

Time: Three Hours] [Maximum Marks: 60

Note: Attempt all questions.

SECTION-A

1. Attempt all parts of the following:

 $8 \times 1 = 8$

- (a) List the components of .Net framework.
- (b) List out the different types of applications created in .Net.
- (c) Explain the structure of C# program.
- (d) What are the differences between value types and reference types?

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- (e) Explain GAC.
- (f) List the types of cookies with example.
- (g) Explain timer and progress bar controls.
- (h) Differentiate data set and data reader.

SECTION-B

- 2. Attempt any two parts of the following: $2 \times 6 = 12$
 - (a) Explain VES (Virtual Execution System) with the help of diagram.
 - (b) Write a C# program that determines a student's grade. The program will read three types of scores (quiz score, mid-term score, and final score) and determine the grade based on the following rules:
 - (i) If the average score $> = 90\% \Rightarrow \text{grade} = A$
 - (ii) If the average score > = 70% and < 90% ⇒ grade = B
 - (iii) If the average score > = 50% and < 70% \Rightarrow grade = C
 - (iv) If the average score $\leq 50\% \Rightarrow \text{grade} = F$

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- (c) Describe the following in detail:
 - (i) Types of assemblies
 - (ii) Global ASAX files
- (d) Explain the following web services in brief:
 - (i) UDDI
 - (ii) DISCO

SECTION-C

Note: Attempt all questions.

 $5 \times 8 = 40$

- 3. Attempt any two parts of the following:
- $5 \times 2 = 10$
- (a) Describe the characteristics of .Net architecture with examples.
- (b) Discuss in detail about the components and services of CLR.
- (c) Explain the following in brief:
 - (i) MSIL
 - (ii) JIT
 - (iii) GC
 - (iv) Base Classes
 - (v) MS .Net Name Spaces

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- 4. Attempt any two parts of the following: $5 \times 2 = 10$
 - (a) Explain the types of inheritance available and write a C# program for multilevel inheritance.
 - (b) Explain the following with examples:
 - (i) Decision making statements
 - (ii) Looping statements
 - (iii) Branching statements
 - (c) Explain the following with C# program:
 - (i) Delegates
 - (ii) Indexers
- 5. Attempt any two parts of the following: $5 \times 2 = 10$
 - (a) Explain the following in brief:
 - (i) Multithreading
 - (ii) Stream Classes
 - (b) Describe state management with the help of example and also explain types of it.
 - (c) Explain the following with C# code:
 - (i) Cross page posting
 - (ii) Web configuration file
 - (iii) Machine configuration file

- (iv) Files
- (v) Session
- 6. Attempt any two parts of the following: $5 \times 2 = 10$
 - (a) Explain a skeletal form based windows program step by step.
 - (b) Describe the following with the help of examples:
 - (i) Data set
 - (ii) Data reader
 - (iii) Data adapter
 - (iv) Data table
 - (v) Debugging
 - (c) Create-student information ASP.Net page with following details:
 - (i) Design student information page with Name, Roll No., Course, Year, Section, Email ID, Mobile No.
 - (ii) Write ASP.Net database connectivity C# program code.
 - (iii) Use various validation controls if necessary to build the web page.

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