Bachelor of Computer Application 3rd Year

1046

INTERNET PROGRAMMING

Paper : BCA–20

Time Allowed : Three Hours]   **[Maximum Marks : 90**

Note : Attempt **five** questions in all, by selecting **one** question each from Sections A, B, C and D. Question No. **9** is compulsory. All questions carry equal marks .

SECTION–A

1. (a) What do you understand by the term Form Validation ? Using an example, explain the concept of Form Validation.   9

    (b) Discuss the various control structures available in JavaScript.   9

2. (a) What are the various elements of a web page which are treated as the objects ? What are the properties and methods associated with them ?   9

    (b) Write a script that displays the message 'Good Morning' and Good Night' in a separate window according to the time of the day.   9

SECTION–B

3. (a) Write short notes on :

    (i) JVM

    (ii) JDK.

    (b) What is a Constructor ? What are its special properties ? Explain the different types of constructors.   9+9

4. (a) When do we declare a method or class final ?

    (b) When do we declare a method or class abstract ?

    (c) Write a program to find the areas of a square room and a rectangular room using Function overloading.   5+5+8

SECTION–C

5. (a) Give an example where interface can be used to support multiple inheritance. Develop a standalone Java program for the example.

    (b) What is the difference between an interface and a class ?
                                                                                    12+6

6. (a) What are the visibility restrictions imposed by various access protection modifiers ?

    (b) Explain how exception handling mechanism can be used for debugging a program.   9+9

SECTION–D

7. (a) Write a program to draw lines of random length and random colors.

   (b) What are input and output streams ? Explain them with illustrations.   9+9

8. (a) State and explain the methods used for Thread Synchronization.

   (b) Explain the applet life cycle.   9+9

9. **Compulsory Question :**

   (i) Give two difference between C++ and Java.

   (ii) What is Byte code ?

   (iii) What is CLASSPATH ?

   (iv) Give any four built-in exceptions.

   (v) What is a stream class ?

   (vi) What are wrapper classes ?

   (vii) List the states of a thread life cycle.

   (viii) How do we add a class or interface to a package ?

   (ix) How does String class differ from the String Buffer class ?

                                                                9×2