44 (5) BCA–HC–5016

2023

JAVA PROGRAMMING

Paper : BCA–HC–5016

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Briefly answer the following : *(any ten)*

    $2 \times 10 = 20$

    (a) Differentiate between Java and C++.

    (b) What do you mean by constructor overloading ?

    (c) What are Final variables and methods ?

    (d) What are Zagged arrays ?

    (e) What are Vectors in Java ? What is its purpose ?

    (f) Explain the term polymorphism.

(g) What is an abstract class?

(h) Why is Java called platform independent?

(i) What is Java virtual machine?

(j) What is a Package? What is the use of Packages in Java?

(k) Explain Destructor.

(l) What are different types of errors?

(m) What are Byte Codes?

2. Answer *any four* questions : 5×4=20

(a) What is object-oriented programming? Discuss the basic concepts of object-oriented programming.

(b) What are the various looping statements available in Java? Discuss *any one* with suitable example.

(c) What are the various primitive data types available in Java? Also specify memory requirements and range of each.

(d) Explain the exception handling mechanism of Java. Name a few exception handling classes.

(e) What are classes and objects ? How are classes and objects created in Java ? Explain with syntax and example.

3. Answer **any two** questions : 10×2=20

(a) Create a Date class in Java having day, month and year data members. Create constructors for initializing data members, functions for validating date, getting values of data members and displaying the date.

(b) Define an Applet. How is an Applet different from an application ? Describe the lifecycle of an applet.

(c) Explain with examples, the various graphics methods supported by AWT. How can color of an object be changed ?

(d) What are packages ? How are packages created and implemented in Java ? Explain in detail with syntax and example.

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