

No.

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BCA/M-23

1881

PROGRAMMING IN CORE JAVA
BCA-366

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory. Attempt *four* more questions, selecting exactly *one* question from each Unit.

Compulsory Question

1. (a) State the purpose of JVM.
- (b) Name the various data types in Java.
- (c) How can you create an object from a class in Java ?
- (d) What is meant by an abstract class ?
- (e) State the purpose of super keyword.
- (f) What is CLASSPATH setting for packages ?
- (g) What are the differences between checked and unchecked exceptions ?
- (h) Enlist the various layout managers in Java.

8×2=16

Unit I

2. Explain various control structures in Java using suitable examples.

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P.T.O.

3. (a) How is Java different from procedural and other object-oriented languages ? Explain. 8
(b) Explain the following terms w.r.t. Java : 8
(i) Keywords
(ii) Literals
(iii) Command line arguments.

Unit II

4. Write a program in Java to create a class named as matrix. This program should be able to multiply and add two matrices. 16
5. Write a program in Java to perform the following operations on strings : 16
(i) finding string length
(ii) compare two strings
(iii) concatenate two strings
(iv) copy a string.

Unit III

6. What do you understand by inheritance ? Explain various types of inheritances using suitable examples in Java in detail. 16
7. Explain any four pre-defined packages along with their classes and methods in detail using suitable examples. 16

Unit IV

8. Explain the following keywords :

- | | |
|--------------|-------------|
| (i) try | (ii) catch |
| (iii) throw | (iv) throws |
| (v) finally. | |

Also write a program using all of the above keywords.

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9. What is an applet life-cycle ? Create an applet that receives a number as input from a text box and find the sum of the digits of the input number and displays it. 16