

(i) Printed Pages: 3

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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PGDCA 2nd Semester

(2042)

OBJECT ORIENTED CONCEPTS USING JAVA

Paper : PGD-2101

Time Allowed : Three Hours]

[Maximum Marks : 60

Note :— Attempt FIVE questions in all by selecting ONE question from each section. Entire Question Number IX is compulsory.

SECTION—A

- I. (a) Explain the benefits and applications of OOPs.
- (b) Explain the following in Java :—
- (i) Java Virtual Machine
- (ii) Java Development Kit. 6,6
- II. (a) What is Method Overloading ? How is it implemented in Java ?
- (b) What is a static keyword in Java ? Explain its use before a method and variable. 6,6

SECTION—B

- III. (a) Explain the concept of subclass and its constructor in Java.
(b) Explain various visibility controls available in Java. 6,6
- IV. (a) What is Inheritance ? Explain Multi level Inheritance.
(b) How are Arrays created, initialized and accessed in Java ?
Write a program in Java to find sum of two matrices. 6,6

SECTION—C

- V. (a) Differentiate between strings of String and StringBuffer class. Explain the use of any two methods of both classes.
(b) How is a Package created and accessed in Java ? Give example. 6,6
- VI. (a) What is an Interface ? How does it support Multiple Inheritance ? Give any example.
(b) Explain the difference between a thread's start() and run() methods. Also explain the various stages a thread undergoes during its life cycle. 6,6

SECTION—D

- VII. What is an Applet ? How does it differ from an application program ? Explain the life cycle of an Applet with suitable diagram. Also describe various methods used in different stages of its life cycle. 12
- VIII. What is an Exception ? Explain the try-catch structure available in Java. Also explain the role of finally block. Give suitable example. 12

Entire Question is Compulsory

IX. Write short answers :—

- (i) What is Data Encapsulation ?
- (ii) Differentiate between Dynamic Binding and Static Binding.
- (iii) Differentiate between an Interface and Abstract class.
- (iv) What will be the output of Java Statement
"System.out.println("Str"+10+10);"?
- (v) Define Bytecode.
- (vi) Explain the use of <param> tag in Applets. 6×2=12