

Roll No.

Total Pages : 03

016404

May 2024

B. Tech. (CE(DS)) (Fourth Semester)
Object Oriented Programming with Java
(PCC-DS-402)

Time : 3 Hours]

[Maximum Marks : 75

Note : It is compulsory to answer all the questions (1.5 marks each) of Part A in short. Answer any *four* questions from Part B in detail. Different sub-parts of a question are to be attempted adjacent to each other.

Part A

1. (a) What is the difference between class and object ? 1.5
- (b) What is multithreading ? 1.5
- (c) What is the difference between method overloading and method overriding ? 1.5
- (d) What is event handling ? 1.5
- (e) What is an adapter class ? 1.5
- (f) What is JNDI in java ? 1.5

- (g) What do you mean by Design Patterns ? 1.5
- (h) What is URLConnection class ? 1.5
- (i) What is object serialization ? 1.5
- (j) Why do we use constructors ? 1.5

Part B

- 2. (a) What are packages ? How are they created and used ? Explain it with an example. 8
- (b) What is an interface ? Why the methods of interface are public and abstract by default ? Write a program to illustrate how to achieve multiple inheritances using multiple interfaces. 7
- 3. (a) What is an applet ? Explain the lifecycle of an applet. Write the security advantages of the applets. 8
- (b) What is a Java database driver ? Write a program to connect to a database, query it and display the result from the database. 7
- 4. (a) What is the role of layout in Java ? Explain the card layout by taking a suitable example. 6

- (b) What are the advantages of the JSP over the servlet ? List and explain the various stages of JSP life cycle. 9
- 5. (a) What do you mean by RMI ? Explain the various steps to implement the RMI application by taking a suitable example. 8
- (b) What is a Socket ? How can you create two-way communication between the server and client ? Explain it by taking a suitable example. 7
- 6. (a) What do you mean by Swing ? How is the tree created in Java using Swing ? Explain it by taking an example. 8
- (b) What do you mean by the bound properties of the Java beans ? Explain it by taking a suitable example. 7
- 7. Write short notes on the following : 3×5=15
 - (a) Exception Handling
 - (b) Action Tags in JSP
 - (c) Enterprise Java Beans (EJB)