

PURBANCHAL UNIVERSITY

2022

Bachelor in Information Technology (B.I.T.)/Sixth Semester/Final

Time: 03:00 hrs.

Full Marks: 80/Pass Marks: 32

BIT376CO: Advance Object-Oriented Programming (New Course)

Candidates are required to give their answers in their own words as far as practicable.

Figure in the margin indicate full marks.

Group A

2×12=24

Answer TWO questions.

1. Explain the basic concepts of object-oriented programming. Why is Java known as platform-natural language? Explain the concept of virtual machine in Java Programming language along with block diagram. 4+4+4
- ✓ 2. Define socket. What are the use of TCP and UDP socket? Write a TCP socket program to send "Hello server" text to the remote machine listening on 9999 port and having 192.168.10.20 IP address. 1+3+8
- ✓ 3. Difference between Swing and AWT Java GUI Packages. Explain Swing Components along with example. 4+8

Group B

Answer SEVEN questions.

7×8=56

4. What are the difference between an array and a vector? Explain the advantage and disadvantage of both. 4+4
- ✓ 5. Write an applet program to calculate x^y where both x and y are integers. 8
- ✓ 6. Write a JDBC connection program with following details.
 - (a) Driver: com.mysql.jdbc.Driver.
 - (b) Host: localhost:
 - (c) Database: students
 - (d) User: root
 - (c) Password : secret
 - (f) Port: 3306

Contd. ...

(2)

7. Discuss how object serialization and object deserialization are achieved.

✓ 8. Explain the lifecycle of Servlet with block diagram.

✓ 9. What is thread synchronization? Explain the concept of multithread in Java with suitable example.

✓ 10. What is code reusability? Explain different mechanism to reuse the code in Java.

✓ 11. What are Stub and Skeleton in Distributed Application? Explain its function with block diagram.

✓ 12. Write short notes on any TWO:

2×4=8

(a) Polymorphism

(h) Applet vs. Application

(c) Marshalling and Unmarshalling

