Level: Bachelor   Semester – Fall   Year   : 2024

Programme: Computer   Full Marks: 100

Course: Advance programming in java   Pass Marks: 45

                                         Time   : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define class. How do you create a class in Java? Differentiate class with interface.(1+2+4)

   b) Explain Design patterns and types in details ? (8)

2. a) Why CORBA is important? Compare CORBA with RMI. (4+4)

   b) What is servlet? Write a simple JSP file to display "Pokhara Engineering Collage" five times.(2+5)

3. a) What is Java Mail API ? How can you use this API to send email messages?(3+4)

   b) What is row set? Explain cached row set in detail.(4+4)

4. a) Why do we need swing components ? Explain the uses of check boxes and radio buttons in GUI programming. (4+4)

   b) How can we use listener interface to handle events? Compare listener interface with adapter class.(3+4)

5. a) How do you handle HTTP request (GET) using servlet? (8)

   b) Compare JavaFX with swing. Explain HBox and BBox layouts of JavaFX.(3+4)

6. a) How do you execute SQL statement in JDBC? (8)

   b) Discuss grid layout with example. (7)

7. **Write short notes on: (any two)5*2**

   a) Multithreading

   b) JSP