

**Time: 3 Hours****Max. Marks: 60****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

PART - A**5 × 4 Marks = 20**

- 1.a) Describe the Java program structure. [4]
- b) What is the difference between an interface and an abstract class? [4]
- c) Explain the different types of legacy collection classes. [4]
- d) How does Java support inter thread communication? [4]
- e) What are the different types of controls available in AWT? [4]

PART - B**5 × 8 Marks = 40**

- 2.a) What is object oriented programming? Explain the need of object oriented programming. [4+4]
- b) What is constructor? What are the rules of constructor? Give an example. [4+4]

OR

- 3.a) List and explain Java Buzz words, in detail. [4+4]
- b) What is constructor overloading? Explain with examples. [4+4]

- 4.a) How Packages differ from Interfaces? Explain. [4+4]
- b) What is the importance of CLASSPATH? Discuss. [4+4]

OR

- 5.a) What is interface? How to create it? Explain with example. [4+4]
- b) Explain about accessing implementations through interface references. [4+4]

- 6.a) Explain about Java commonly used collection classes. [4+4]
- b) Discuss about random access file operations. [4+4]

OR

- 7.a) Write about the overview of Java collection framework. [4+4]
- b) Explain the connectionless client/server interaction with diagrams. [4+4]

- 8.a) What is thread synchronization? Discuss with an example. [4+4]
- b) Explain the following with necessary code snippets:
i) Creating thread ii) Stopping and Blocking a Thread [4+4]

OR

- 9.a) Explain various thread states and properties in detail. [4+4]
- b) Explain about Exception Handling in Java with examples. [4+4]

- 10.a) Describe the different stages in the life cycle of an Applet. [4+4]
- b) Explain the features of Swings in Java. [4+4]

OR

- 11.a) What is AWT? List difference between AWT and swings. [4+4]
- b) Write an applet program to enter personal details. [4+4]

