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- Notes :
1. All questions are compulsory.
 2. All questions carry equal marks.
 3. Due credit will be given to neatness and adequate dimensions.

1. a) Explain static modifier. Write a program to explain static modifier. **8**
- b) Explain JVM Architecture with neat labeled diagram. **8**

OR

2. a) Define Class and Object. Explain syntax to create class and Object in JAVA. **8**
- b) Differentiate OOP and POP with suitable diagram and give example of each. **8**
3. a) What is Interface. Give and explain syntax of Interface. Give advantages of interfaces in JAVA. **8**
- b) Explain: **8**
 - i) Lang package.
 - ii) Util package.

OR

4. a) Define exception. Write a program to enter the password from the user and throw "Authentication Error" exception if password mismatches. **8**
- b) Explain packages in JAVA. Write a program to create and access user defined package in JAVA. **8**
5. a) Define Applet. Write a program to create applet to display filled rectangle and display message "GONDWANA UNIVERSITY EXAMINATION 2023" in red color below it. **8**
- b) Write a code to create applet and explain event handling in java. **8**

OR

6. a) Explain: **8**
 - i) drawRect()
 - ii) DrawPolygon()
 - iii) drawArc()
 - iv) drawOval()
- b) Explain various Layout manages available in Java. **8**

7. a) Explain BufferedReader class. Write a java program to read a file using BufferedReader class. **8**
- b) Explain object serialization and deserialization using neat labeled diagram. **8**

OR

8. a) Explain JDBC/ODBC bridge driver with neat diagram. **8**
- b) Explain Java Random Access file with its modes. **8**
9. a) Define socket. Explain socket programming in detail. Also explain Server Socket class. **8**
- b) Explain Proxy server with its purpose. **8**

OR

10. a) Explain Internet Address with neat labeled diagram. **8**
- b) Explain: **8**
- i) UDP socket.
- ii) DatagramPacket class.
