

END TERM EXAMINATION

FOURTH SEMESTER [BCA] JULY 2023

Paper Code: BCA-202

Subject: Java Programming

(BATCH 2021 ONWARDS)

Time: 3 Hours

Maximum Marks: 75

Note: Attempt five questions in all including Q.No. 1 which is compulsory.

- Q1 Answer the following (2.5x10=25)
- a) Discuss three usage of final keywords.
 - b) Mention various states of thread. Give suitable example.
 - c) How the constructor is overloaded in Java?
 - d) How multithreading is achieved in Java. Explain its advantages and disadvantages.
 - e) Why Java is called type safe language as compared to C++.
 - f) What are the roles of Java compiler and interpreter?
 - g) Explain Why the main function is declared as "Public static void main (String args [])"?
 - h) How does java byte code differ from other machine level codes?
 - i) What is the use of this, final and super keyword in Java.
 - j) Discuss process of synchronization of a thread with suitable example.
- Q2
- a) What is constructor? Does Java provide default constructor? Explain your answer with suitable example. (8.5)
 - b) Explain in details the features of Java. (4)
- Q3
- a) Explain the concept of abstract classes in Java with suitable example. How abstract classes differ from interface. (9.5)
 - b) What are interfaces? What are their benefits? Give the general form of a class that implements interfaces. (3)
- Q4
- a) Explain different access modifiers available in Java. (6)
 - b) Differentiate between checked and unchecked exception. Write a program to illustrate user defined exception. (6.5)
- Q5
- a) Explain the life cycle of threads. Also explain different ways of creating threads in java. (6.5)
 - b) Write a program to print the table of any no. inside the applet. (6)
- Q6
- a) Discuss various Layout Managers available in AWT. (6.5)
 - b) Differentiate between Swing and AWT. (6)
- Q7
- a) How is method overloading different from method overriding? Give suitable example. (5)
 - b) Write **short notes** on the following: (7.5)
 - i) Adapter class
 - ii) Applet and application program
 - iii) Check box and choice list

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- ~~Q8~~ a) What is JDBC? Explain all JDBC drivers in detail. (7.5)
b) Write short notes on Java Servlet. (5)

- ~~Q9~~ a) Explain the following term with respect to exception handling. (8.5)
i) Try
ii) Catch
iii) Finally
iv) Throw
b) Differentiate between JDBC and ODBC. (4)
