

UTTARANCHAL UNIVERSITY, DEHRADUN
UTTARANCHAL SCHOOL OF COMPUTING SCIENCES
MID TERM EXAMINATION
EVEN SEMESTER 2023-24
BSc IT | 4th Semester
PROGRAMMING IN JAVA | BSIT – C402

Time: **1:15 Hour**

Max. Marks: **30**

Note: All questions are compulsory.

Q.1- Answer the following questions. (1 x 6 = 6 Marks)

Multiple Choice Questions

- a) Size of a float is (CO-1, BL-1)
 - a. 2 byte
 - b. 4 byte
 - c. 8 byte
 - d. None of these

- b) Which of these are selection statements in Java? (CO-1, BL-1)
 - a. break
 - b. if()
 - c. continue
 - d. for()

- c) What is the extensions of java code files? (CO-1, BL-1)
 - a. .class
 - b. .java
 - c. .txt
 - d. None of these

State True/ False

- d) String is immutable in JAVA. (CO-2, BL-3)
- e) Garbage Collection is manual process. (CO-1, BL-1)
- f) Java is platform independent language but JVM is platform dependent. (CO-1, BL-4)

Q.2-Attempt any two of the following (up to 70 words) (2 x 3 = 6 Marks)

- a) Write any five features of Java with example. (CO-1, BL-2)
- b) Design a program in Java to check whether a number is prime or not. (CO-2, BL-6)
- c) Explain OOPs. Write short note on – Encapsulation, Abstraction, Polymorphism, Inheritance. (CO-1, BL-2)

Q.3-Attempt any one of the following (1 x 6 = 6 Marks)

- a) Differentiate between JVM, JRE, JDK. (CO-1, BL-4)

OR

- b) What is Exception Handling. Write a program to implement try, catch and finally. (CO-2, BL-6)

Q.4- Attempt any one of the following. (1 x 6 = 6 Marks)

- a) Distinguish between abstract class and interface with the help of suitable examples. (CO- 2, BL-4)

OR

- b) State what is Multithreading. Explain life cycle of a thread with a proper diagram. (CO- 2, BL-2)

Q.5- Attempt any one of the following. (1 x 6 = 6 Marks)

- a) Differentiate between String and StringBuffer. Write a program in Java to check whether a string is palindrome or not (CO- 2, BL-6)

OR

- b) Why is multiple inheritance not supported in Java. Write a program in java to implement multiple inheritance using interface. (CO- 2, BL-6)