

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE/Artificial Intelligence & Machine Learning) (Sem.-5)

JAVA PROGRAMMING

Subject Code : BTAIML 509-20

M.Code : 93185

Date of Examination : 02-01-23

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

- a. What is JIT compilation?
- b. What are cloning objects?
- c. What is the use of final keyword?
- d. Difference between throw and throws keyword.
- e. How threads can be assigned priorities in java?
- f. Difference extends and implements.
- g. Write example of mutable string.
- h. List different types of collections.
- i. How we can connect front end application with backend in java?
- j. What is StringTokenizer class?

SECTION-B

2. Discuss the different usages of super keyword in java with the help of suitable program.
3. What are packages? Write naming conventions for packages.
4. What are servlets? Discuss the thread life cycle of servlet application.
5. What is the role of AWT? Discuss few components of AWT for GUI programming.
6. Write a program to implement the Factorial of a number using recursion in Java?

SECTION-C

7. Discuss different string handling methods used in java. Write a program which produces alphabetical ordering of strings. For example, if the input strings are "TOY", "ATE" and "EAT" then program should output "ATE", "EAT" and "TOY".
8. Explain different types of inheritance in detail and how java supports multiple inheritance using any suitable program.
9. Write a short note on :
 - a. User defined exception with the help of a suitable program
 - b. CRUD operations.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.