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Code No: 154CE

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech II Year II Semester Examinations, September/October - 2023****OBJECT ORIENTED PROGRAMMING USING JAVA****(Computer Science and Engineering (Artificial Intelligence and Machine Learning))****Time: 3 Hours****Max. Marks: 75**

- Note:** i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) What do you mean by method binding? [2]
- b) Define abstract class with example. [3]
- c) List out the Byte stream classes. [2]
- d) How to import a package in Java? [3]
- e) Differentiate between thread-based and process based multitasking. [2]
- f) How uncaught exceptions are handled in Java? [3]
- g) What is meant by a Priority Queue? [2]
- h) How to convert an ArrayList into an array? [3]
- i) List the security issues while using applets. [2]
- j) Distinguish between Applets and Applications. [3]

PART – B**(50 Marks)**

- 2.a) Distinguish between Adhoc polymorphism and pure polymorphism.
- b) Develop a program in Java that reads values from keyboard into a two-dimensional array. Create two one - dimensional arrays that contains row and column averages. [5+5]

OR

- 3.a) Illustrate with a Java program, the multilevel inheritance with constructors.
- b) Discuss about string handling methods. [5+5]

- 4.a) Describe the methods used for random access file operations.
- b) Explain about Nested interfaces with examples. [5+5]

OR

- 5.a) Explain about Extending interface with example program.
- b) Write a Java program to implement stacks using generics. [5+5]

- 6.a) Distinguish between throw and throws keywords with a Java program.
- b) Design a Java program using multiple catch clauses. [5+5]

OR

- 7.a) Explain about inter thread communication.
- b) Design a Java program using nested try statements. [5+5]

- 8.a) Write a Java program to sort the names of employees alphabetically using Array List.
b) Explain about Calendar class. [5+5]

OR

- 9.a) Demonstrate the Stack class with a Java program.
b) Using comparator, develop program to set the elements of Tree Set in descending order? [5+5]

- 10.a) Develop swing application to demonstrate event handling?
b) Explain about Grid Layout? [5+5]

OR

- 11.a) Differentiate between checkbox and radio button, write a program using them.
b) What is the importance of Adapter classes? List out the adapter classes and which class implements which interface(s). [5+5]

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