

**R18**

Code No: 156CC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, February - 2023

**OBJECT ORIENTED PROGRAMMING THROUGH JAVA**

(Common to ECE, EIE)

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) Define a class. [2]
- b) What is the significance of Java byte code? [3]
- c) Define polymorphism. [2]
- d) How to declare an interface in Java? [3]
- e) Define a thread. How is it different from a process? [2]
- f) What is the need of auto boxing? [3]
- g) What is an event? [2]
- h) What is the importance of an adapter class? [3]
- i) List the types of applets. [2]
- j) What are the limitations of AWT? [3]

**PART – B**

**(50 Marks)**

2. Describe the features of object oriented programming. [10]

**OR**

- 3.a) Does Java support bit-wise operators? Justify your answer.
- b) Demonstrate constructor overloading with an example Java program. [5+5]

4. Explain the benefits and various forms of inheritance implemented in Java. [10]

**OR**

- 5.a) Differentiate between an abstract class and an interface.
- b) Discuss the access control privileges among packages. [5+5]

6. How are exceptions handled in Java programming? Demonstrate with suitable code segments. [10]

**OR**

- 7.a) Discuss the built-in functions used in inter thread communication.
- b) Write a Java program to count number of words in a given sentence. [5+5]

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8.a) Briefly explain event delegation model.

b) Discuss any three listener interfaces frequently used in event handling.

[5+5]

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9. Construct a user interface form for student registration to a hackathon using AWT components and event handling concept.

[10]

10.a) Write the code to create an applet to draw a smiley.

b) How to pass parameters to an applet? Present an example code.

[5+5]

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11. Describe in detail about Model-View-Controller (MVC) architecture with relevant Java program.

[10]

**OR**

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