

D

08000CST205122302



Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

B.Tech Degree S3 (R,S) / S3 (WP) (R,S) / S1 (PT) (S,FE) Examination November 2024 (2019 Scheme)

**Course Code: CST205**

**Course Name: OBJECT ORIENTED PROGRAMMING USING JAVA**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions. Each question carries 3 marks*

Marks

- |    |                                                                                       |     |
|----|---------------------------------------------------------------------------------------|-----|
| 1  | State the importance of activity diagram.                                             | (3) |
| 2  | Explain how byte code helps in achieving platform independence.                       | (3) |
| 3  | Define a Constructor? State its properties.                                           | (3) |
| 4  | State the uses of this keyword.                                                       | (3) |
| 5  | Outline the use of final keyword.                                                     | (3) |
| 6  | Give the difference between checked and unchecked exceptions?                         | (3) |
| 7  | List out any three event sources and mention its event type and listeners used in it. | (3) |
| 8  | Outline the use of synchronized keyword.                                              | (3) |
| 9  | Explain the difference between AWT and Swing.                                         | (3) |
| 10 | List any four container and component classes of Swing API?                           | (3) |

**PART B**

*Answer any one full question from each module. Each question carries 14 marks*

**Module 1**

- |    |                                                                                                                                                                                                  |     |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 11 | a) Explain various lexical issues in java programming                                                                                                                                            | (7) |
|    | b) Draw a class diagram for an order processing system                                                                                                                                           | (7) |
| 12 | a) Name the four integer types in Java and outline the bitwise operators that can be applied to the integer types.                                                                               | (7) |
|    | b) Design a use case diagram for a simple online shopping system. Identify the main actors involved and the primary use cases that represent the interactions between the actors and the system. | (7) |

**Module 2**

- |    |                                                                           |     |
|----|---------------------------------------------------------------------------|-----|
| 13 | a) Differentiate between method Overloading and Overriding with examples. | (8) |
|    | b) Explain the uses of super keyword with examples.                       | (6) |

- 14 a) Discuss different access specifiers used in java? (6)  
b) Explain dynamic method dispatch with the help of an example. (8)

**Module 3**

- 15 a) What is the difference between the Reader /Writer class hierarchy and the Input stream/Output stream class hierarchy? (7)  
b) Explain how the following scenario is implemented. Create a package "reversepackage". Add a class Reverse into it and write a method rev () which reverses a number. Import this package in another class outside the package and find the reverse of a number given as command line argument (7)
- 16 a) What are the exception handling keywords in java? (7)  
b) Write a java program to copy the contents of a text file into another text file. (7)

**Module 4**

- 17 a) Outline the concept of adapter classes with the help of an example (8)  
b) Explain the Thread Life Cycle with a neat diagram? (6)
- 18 a) Explain Delegation event model in java with a program example? (7)  
b) Explain the different ways of creating a thread using java. (7)

**Module 5**

- 19 a) Outline the various steps involved in connecting java with a database. (8)  
b) Write a simple swing program which prints a message on a text box when a button is clicked (6)
- 20 a) Write a swing program to develop a mini calculator which include addition, subtraction, multiplication and division functionality (8)  
b) Write a java program which insert a set of values into a database table 'student' (6)

\*\*\*\*\*