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Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fourth Semester B.Tech Degree (S, FE) Examination January 2024 (2015 Scheme)



Course Code: CS206

Course Name: OBJECT ORIENTED DESIGN AND PROGRAMMING (CS)

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks.

- | | | Marks |
|---|---|-------|
| 1 | Explain how platform independence is achieved in Java. | (3) |
| 2 | List out two properties of a constructor | (3) |
| 3 | What are the different ways of passing parameters in Java | (3) |
| 4 | Write a Java program that reads a month number and prints the corresponding month name using a switch-case statement. | (3) |

PART B

Answer any two full questions, each carries 9 marks.

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|---|--|-----|
| 5 | a) Draw a use case diagram for a library management System | (5) |
| | b) Illustrate method overloading with the help of an example | (4) |
| 6 | a) Explain the Object Oriented Development Life cycle. | (4) |
| | b) Write a Java program to find the sum of two complex numbers. Use suitable methods and constructors. | (5) |
| 7 | a) Represent a Sales order System using a class diagram | (5) |
| | b) Explain the visibility of all access specifiers available in Java language. | (4) |

PART C

Answer all questions, each carries 3 marks.

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|----|--|-----|
| 8 | Outline the uses of super keyword using suitable code snippets | (3) |
| 9 | Explain the two different methods of creating a Thread | (3) |
| 10 | State the properties of an abstract class. | (3) |
| 11 | Draw a diagram indicating the working of Java OutputStream and InputStream | (3) |

PART D

Answer any two full questions, each carries 9 marks.

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|----|---|-----|
| 12 | a) Write a Java program to read n numbers into an array and throw a user-defined exception if the average of the elements of the array is greater than 50 | (5) |
| | b) Explain the use of synchronized keyword with the help of an example | (4) |

- 13 a) Illustrate the life cycle stages of a Java thread with a neat diagram (5)
b) Outline the uses of **finally** keyword in Java (4)
- 14 a) Explain a scenario where the **throws** keyword can be used. (4)
b) Write a Java program to read the contents of a file and copy it to another file. (5)

PART E

Answer any four full questions, each carries 10 marks.

- 15 a) List out any five String handling functions in Java with their signature (5)
b) Write an applet program to draw a circle inside a rectangle (5)
- 16 a) Explain the differences between applets and application programs (5)
b) With the help of examples, Illustrate the two different ways of creating a simple GUI using Swing. (5)
- 17 a) Differentiate between String and String Buffer class (5)
b) Write an event-handling program in the applet that prints a message by clicking the button. (5)
- 18 a) Compare and contrast AWT and Swing in the context of Java graphical user interface (GUI) development. (5)
b) Explain the delegation Event model with the help of a neat sketch (5)
- 19 a) Elaborate on the life cycle stages of an applet in Java (5)
b) Write a Java program to create a table in database and store the details of student (stdid, mark1, mark2, mark3) by making JDBC connection. (5)
- 20 a) Illustrate the different steps involved in connecting Java with a database (5)
b) Write a Java program with a Graphical User Interface (GUI) that allows users to input two values and perform addition, subtraction, and multiplication operations. It also displays the results of the corresponding operations. (5)
