

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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

Third Semester B.Tech (Minor) Degree Examination December 2021 (2020 admission)

**Course Code: CST281****Course Name: OBJECT ORIENTED PROGRAMMING**

-Max. Marks: 100

Duration: 3 Hours

**PART A***Answer all questions. Each question carries 3 marks*

Marks

- |    |  |     |
|----|--|-----|
| 1  | Write the differences between functional oriented and object oriented approaches.          | (3) |
| 2  | Discuss the features of Java Bytecode.   | (3) |
| 3  | List the Bitwise operators in Java. Give a description about the Bitwise operators.        | (3) |
| 4  | What is recursion? Write a Java program to find the factorial of a number using recursion. | (3) |
| 5  | Discuss the different types of exceptions in java.   | (3) |
| 6  | List out the access specifiers in Java. Write the features of the access specifiers.       | (3) |
| 7  | Describe PrintWriter class in Java.  | (3) |
| 8  | With an example describe the method used to find the length of a string.                   | (3) |
| 9  | Describe model view controller architecture.   | (3) |
| 10 | Differentiate Swing and AWT.   | (3) |

**PART B***Answer any one question completely from each module. Each question carries 14 marks***Module 1**

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|----|---|-----|
| 11 | a. Write notes on basic object oriented concepts.   | (6) |
|    | b. What are the features of a class diagram? Draw the class diagram of a Library Management system. | (8) |
| 12 | a. Write notes on Java Virtual Machine.   | (8) |
|    | b. Draw Use case Diagram for movie reservation system.  | (6) |

**Module 2**

- 13 a. Which are the selection statements used in Java? Write the syntax and examples of different selection statements. (10)
- b. Write short notes on type conversion and casting. (4)
- 14 a. Describe classes and objects with examples. Write the differences between classes and objects. (8)
- b. Write short notes on constructors in Java. Mention the different types of constructors. (6)

**Module 3**

- 15 a. Which are the different types of inheritances used in Java? (8)
- b. Discuss the use of **final** keyword in inheritance with example. (6)
- 16 a. Describe method overriding. Write a Java program to demonstrate method overriding. (5)
- b. Describe throw, throws and finally with suitable examples. (9)

**Module 4**

- 17 a. What is the difference between print( ) and println( ) methods in Java. Describe with suitable examples. (9)
- b. With an example explain ArrayList class. (5)
- 18 a. Explain different types of methods used for file operations. (8)
- b. Describe the methods used for string modifications with examples. (6)

**Module 5**

- 19 a. Explain how Swing is used as a GUI framework. Write down the features of Java Swing. (6)
- b. Write notes on the event handling in Java. (8)
- 20 a. Describe the different ways of creating a thread. (5)
- b. Write notes on JFrame, JButton and JTextField with suitable examples. (9)

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