Department of Computer Science and Engineering

B. Tech. Mid Question Bank (R22 Regulation)

Academic Year: 2024 Semester: III

Subject Name: Object Oriented Programming Through Java

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PART-A

| Q.No | Questions | Marks | BL | CO | Unit No |
|------|--|-------|----|-----|---------|
| 1 | Define class and object. | 2 | L1 | CO1 | 1 |
| 2 | Explain the usage of super keyword in java. | 2 | L2 | CO1 | 1 |
| 3 | What is a Constructor Explain its types? | 2 | L1 | CO1 | 1 |
| 4 | Explain the concept of Object-Oriented Programming. | 2 | L2 | CO1 | 1 |
| 5 | Explain about the method overloading in Java. | 2 | L2 | CO1 | 1 |
| 6 | What is an abstract class? | 2 | L2 | CO1 | 1 |
| 7 | What is a package? | 2 | L1 | CO2 | 2 |
| 8 | What is an interface ? | 2 | L1 | CO2 | 2 |
| 9 | What are byte streams and character streams? | 2 | L1 | CO2 | 2 |
| 10 | Describe how to implement an interface. | 2 | L2 | CO2 | 2 |
| 11 | How would you import a user-defined package in a Java program? | 2 | L3 | CO2 | 2 |
| 12 | Explain auto boxing. | 2 | L2 | CO2 | 2 |
| 13 | Define Exception. How to handle Exceptions in java? | 2 | L1 | CO3 | 3 |
| 14 | Explain the advantages of Exception Handling. | 2 | L2 | CO3 | 3 |
| 15 | What are the different types of exceptions in Java? | 2 | L3 | CO3 | 3 |
| 16 | Define a Thread. Explain the life cycle of a thread. | 2 | L2 | CO3 | 3 |
| 17 | Explain Synchronization threads with example. | 2 | L2 | CO3 | 3 |
| 18 | What is the difference between thread-based multitasking and process-based multitasking? | 2 | L4 | CO3 | 3 |
| 19 | Explain Properties class. | 2 | L2 | CO4 | 4 |
| 20 | Discuss about Priority Queue. | 2 | L2 | CO4 | 4 |
| 21 | Explain the difference between HashSet and TreeSet. | 2 | L4 | CO4 | 4 |
| 22 | Differentiate between Stack and Vector. | 2 | L4 | CO4 | 4 |
| 23 | Explain Date and Calendar class. | 2 | L2 | CO4 | 4 |
| 24 | How to Access a Collection via an Iterator? | 2 | L3 | CO4 | 4 |
| 25 | What is the uses of Adapter class? Explain | 2 | L2 | CO5 | 5 |
| 26 | What are the limitations of AWT? | 2 | L1 | CO5 | 5 |
| 27 | Explain the MVC architecture. | 2 | L2 | CO5 | 5 |
| 28 | Differentiate between AWT and Swing. | 2 | L4 | CO5 | 5 |
| 29 | What is an Event? Explain Event Listeners? | 2 | L2 | CO5 | 5 |
| 30 | Explain about Applets and its Applications. | 2 | L2 | CO5 | 5 |

PART-B

| Q.No | Questions | Marks | BL | CO | Unit No |
|------|---|-------|------|-----|---------|
| 1 | What is a String? Explain different String Handling functions available in Java | 4 | L2 | CO1 | 1 |
| 2 | Explain the forms of inheritance in Java. | 4 | L2 | CO1 | 1 |
| 3 | Differentiate between Method overloading and Method overriding. | 4 | L4 | CO1 | 1 |
| 4 | Explain abstract class with example. | 4 | L2 | CO1 | 1 |
| 5 | What is method overriding in Java? Provide an example | 4 | L1 | CO1 | 1 |
| 6 | Differentiate about final classes, final methods and final variables. | 4 | L4 | CO1 | 1 |
| 7 | Define Inheritance. Explain Different types of Inheritance available in Java. | 8 | L2 | CO1 | 1 |
| 8 | Explain in-detail about Java Buzzwords. | 8 | L2 | CO1 | 1 |
| 9 | Implement polymorphism and types of polymorphism with example. | 8 | L3 | CO1 | 1 |
| 10 | How would you import a user-defined package in a Java program? | 4 | L3 | CO2 | 2 |
| 11 | Write a java Program that uses a nested interface. | 4 | L1 | CO2 | 2 |
| 12 | Discuss this and super keywords. | 4 | L2 | CO2 | 2 |
| 13 | Implement a program to copy the contents of one file into another file. | 4 | L3 | CO2 | 2 |
| 14 | Explain different Access specifier available in Java. | 4 | L4 | CO2 | 2 |
| 15 | Define File class? Explain Random Access File operations with access modes. | 4 | L2 | CO2 | 2 |
| 16 | Does Java support multiple inheritance? Justify your answer. | 8 | L5 | CO2 | 2 |
| 17 | Create a package. How many ways to importing a package with example? | 8 | L5 | CO2 | 2 |
| 18 | Define a stream. Design the stream classes hierarchy. | 8 | L6 | CO2 | 2 |
| | Explain the following. | 7 7 | - 17 | | |
| 19 | a) try b) catch c) finally | 4 | L2 | СОЗ | 3 |
| 20 | Explain the difference between checked and unchecked exceptions. | 4 | L4 | СОЗ | 3 |
| 21 | Write a Java program that demonstrates the use of 'try' and 'catch' blocks.? | 4 | L3 | СОЗ | 3 |
| 22 | Analyze the impact of thread life cycle on the execution of Thread in Java. | 4 | L4 | CO3 | 3 |

| | Develop a Java Program that demonstrates inter- | | | | |
|-----|--|----|-----|-------|---|
| 23 | thread communication or producer-consumer | 4 | L5 | CO3 | 3 |
| | problem with example? . | | | | |
| | Differentiate between multi-tasking and multi- | | T 4 | GO2 | 2 |
| | threading. | 4 | L4 | CO3 | 3 |
| 25 | Explain Collection Framework. | 4 | L2 | CO4 | 4 |
| 26 | Differentiate between Array and Arraylist. | 4 | L4 | CO4 | 4 |
| 27 | Differentiate between HashSet and TreeSet. | 4 | L4 | CO4 | 4 |
| 28 | Explain Priority Queue. | 4 | L2 | CO4 | 4 |
| 29 | Explain Hash Map. | 4 | L2 | CO4 | 4 |
| 30 | Explain Hash table and Dictionary. | 4 | L2 | CO4 | 4 |
| 31 | Explain Map interface its classes and sub interfaces (HashMap, TreeMap). | 8 | L2 | CO4 | 4 |
| 32 | Analyze Legacy classes with example. | 8 | L5 | CO4 | 4 |
| 33 | Illustrate Collection Framework with LIST and SET Interface. | 8 | L3 | CO4 | 4 |
| 34 | Write the implementation of Anonymous Inner class. | 4 | L3 | CO5 | 5 |
| 35 | Explain Java Swing class hierarchy. | 4 | L2 | CO5 | 5 |
| 36 | Differentiate between Applet and Application. | 4 | L4 | CO5 | 5 |
| 37 | Implement a Java Program for mouse events. | 4 | L3 | CO5 | 5 |
| 38 | Explain Swing components like, JCombobox, JButton. | 4 | L2 | CO5 | 5 |
| 39 | Explain Graphics class with suitable example. | 4 | L2 | CO5 | 5 |
| | What is an applet? Explain the life cycle of | | 7 | h | |
| 40 | applet? Implement the parameter passing | 8 | L3 | CO5 | 5 |
| | technique for applets. | | | 1.1.0 | |
| A 1 | Define Layout. Explain Different layout | 8 | L4 | CO5 | 5 |
| 41 | managers available in Java with neat sketch. | 8 | L/4 | COS | 3 |
| | Discuss the following swing Buttons: a. JButton b. JCheck Box | NV | ΕN | Т | |
| 42 | c. JScroll Pane d. Dialogs. | 8 | L2 | CO5 | 5 |
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