

Object Oriented Programming (22UCSC401)

Unit-wise Theory questions

UNIT I

1. Discuss basic principles of Object-Oriented Philosophy with a proper example for each.
2. Illustrate the working of Dynamic Method Dispatch (DMD) in Java, with an appropriate programming example.
3. What do you mean by hierarchical classification? Explain different types of hierarchies with relevant examples for each.
4. Explain the following Java Keywords with an example for each:
 - a. static
 - b. final
 - c. finalize
 - d. this
 - e. super
 - f. override
 - g. public
5. Discuss briefly the following string functions with an example for each:
 - a. length
 - b. charAt
 - c. toString
 - d. equals
 - e. equalsIgnoreCase
6. Briefly explain the need and use of 'abstract' keyword in Java.
7. Discuss the various inheritance types with an example for each.
8. Compare and contrast run-time and compile-time polymorphism.

UNIT II

1. Compare different access specifiers in Java.
2. Explain the use of packages with an appropriate programming example.
3. What are interfaces? Compare interfaces with abstract classes with relevant example.
4. Explain various types of exceptions in Java. Give a proper programming example to show the use of exception handling.
5. Discuss try-catch-finally blocks used in Java Exception handling.

UNIT III

1. Explain the use of bounded and unbounded generics in Java.
2. Explain the various ways of displaying the elements in a collection using 'Iterable/Iterator' in Java.
3. With a neat hierarchical diagram, explain the different collection classes available in Java.
4. What is the need for Java streams? Explain the 2 types of I/O streams in Java.

UNIT IV

1. Explain the different types of database drivers with a proper working diagram for each of the type.
2. Discuss the various steps used in the Java database connectivity.
3. Explain connection-oriented vs connectionless network connectivity between a client and a server.
4. Discuss in detail the Java Servlet life cycle with a relevant programming example.
5. Explain with an explain for each the various JSP tags.
6. Write the different JSP objects along with their use in programming.

UNIT V

1. Explain the types of lambda expressions with an example for each.
2. Discuss the life cycle of JavaFX with a corresponding programming example.
3. Explain the ways of creating menus / context menus in JavaFX.
4. Discuss briefly the following:
 - a. application
 - b. Scene
 - c. Stage
 - d. Layout
 - e. Button
 - f. Checkbox
 - g. Menubar

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