

Unit-I

1. what is meant by Object Oriented Programming?
2. what is meant by abstraction
3. List out the type of Arrays
4. Interpret the statement "Java is platform independent".
5. List the various access specifiers supported by OOPS
6. Illustrate constructors in Java
7. Define static variable and static method
8. Infer how to import a single package
9. Explain about Encapsulation
10. Explain about Polymorphism
11. Outline a Java programming structure to display "Welcome to INDIA"
12. Outline a simple Java Program to find the given number is Prime or not.
13. Explain the use of "this" keyword
14. Illustrate What is a parameterised constructor.
15. What do you mean by scope of variable?
16. Summarize the use of final keyword.
17. Explain what is protected visibility.
18. What is meant by object cloning?
19. Write about inner classes used in java.

PART-B

1. Explain OOPS and its features
2. Summarize about the usage of constructor with an example using Java.
3. Define and explain the control flow statements in Java with suitable examples
4. Summarize the characteristics of Java.
5. Explain packages in Java with example.
6. Interpret with an example what is method overloading and method overriding.
7. Explain with an example how passing objects as parameters to methods and returning objects from methods in Java.
8. Explain about different types of inheritance with an example
9. Explain about abstract classes and interfaces with an example.
10. Differentiate abstract classes and interfaces

Unit-II

1. Interpret what is an Exception. What is its use?
2. Define uncaught exception
3. State the five keywords used in exception handling in JAVA
4. Compare exception and error
5. What is array out of bound exception?
6. Define uncaught exception
7. What are the methods to create own exceptions
8. List out the methods used in chained exception?
9. Mention the use of getCause() method.
10. What do you mean by chained exception?

11. List the constructors used in creating own exceptions
12. Differentiate character arrays and byte arrays used in creating strings.
13. Demonstrate the use of `initCause()` method in exception handling.
14. Explain the term string tokenizer
15. Explain the use of `regionMatches()` method.
16. Describe how will you find last occurrence of given character in a string.
17. If a string is created as `String S="Java"+6+9`; what is the value stored in S
18. Interpret the results given by `compareTo()` method in string handling.
19. What is the use of `trim()` method?
20. What is meant by string concatenation?

PART-B

1. Explain in detail about exception handling and write a program to illustrate Divide by zero exception
2. Differentiate Arrays and strings. Write a java program to find given string is polindrome or not
3. Develop a java program to implement various string handling methods
4. Explain how to create user defined exceptions with an example

Unit-III

1. Describe about Multithreading
2. Differentiate multithreading and multitasking
3. Differentiate input stream and output stream
4. Write the syntax to get a string using `stringbuffer`
5. Define the term 'Stream' related to java
6. Identify the different states of thread
7. Demonstrate how do we set priorities for threads
8. Thread is light weight process. comment on this statement
9. Differentiate `notify()` and `notifyall()` methods

PART-B

1. Illustrate how to extend thread class and how to implement `Runnable` interface for creating and starting threads
2. Describe the states of thread and life cycle model of threads
3. Explain the methods defined by thread class with examples.
4. Summarize briefly about thread synchronization with an example.
5. Illustrate the input and output streams with suitable example
6. Explain in detail about reading and writing from files

Unit-IV

1. List the situation in which an action event and item event is generated?
2. Name the Listener methods that must be implemented for the `KeyListener` interface
3. What are the steps needed to show a Frame
4. List the types of listeners handle mouse events
5. List the situation in which an action event and item event is generated?

6. Define JPanel object
7. Mention any four event names of a button component
8. What is meant by window adapter classes
9. What do you mean by delegation event model?
10. What is a source of an event?
11. Explain about draw image() and copy Area() methods
12. Explain the syntax to handle two mouse events
13. Explain the steps needed to show a Frame
14. Summarize the function of (a) Set Layout and (b) Flow Layout
15. Distinguish swing and AWT
16. Describe the use of Flow Layout java swing
17. How are frames created in Java swing
18. Mention the four types of buttons used in java swing
19. Explain four swing components with proper syntax
20. Differentiate GridBagLayout from GridLayout

PART-B

1. Discuss mouse listener and mouse motion listener. Give an example program
2. State and Explain the basic of AWT Event handling in detail
3. Describe in detail about the different layout in Java GUI. Which layout is the default one?
4. Summarize the following in detail: Model, view and controller design pattern with respect to Swing in Java. How MVC design pattern is achieved?
5. Infer JList and JComboBox with an example
6. Compare check boxes and radio buttons with an example

Unit-V

1. List out the motivation needed in generic programming
2. Express the need for generic code?
3. Write the syntax for declaring a reference to a generic class and instance creation
4. What do you mean by Generics?
5. State the reason why the following statement is illegal
6. `"Gen<int> intOb = new Gen<int>(53);"`
7. What is the use of collection framework.
8. List any four Interfaces used in collections framework?
9. What is meant by arraylist?
10. Write down the generalized syntax of Generic class
11. What is Generic constructor?
12. Explain the use of NavigableSet interface in Collection framework
13. Compare add() method and addAll() method in Collection framework
14. Explain any four methods used in collections framework?
15. Explain briefly about Collection Framework?
16. Explain the use of addAll() method in collection framework
17. Explain the use of Iterator interface
18. Explain the use of Spliterator interface
19. Illustrate the use of Maps in in Collection framework
20. Differentiate Iterator and Spliterator
21. Explain the use of ArrayList class

PART-B

1. Explain the concept of Generic Type with an example program
2. Explain in detail about various Collection classes used in java
3. Write a java program to perform various string operations using ArrayList
4. Evaluate how generic methods and generic expressions are translated
5. Explain with an example program how Generics provide type safety?
6. Explain the HashSet class with an example program