UNIT_1

1. What is Language Standardization.
2. Explain Logic Programming paradigm
3. Differentiate between procedural and object oriented Programming paradigm
4. Explain the process of translation
5. Describe each stages in translation with diagram.
6. What are the types of composite data types?
7. Write a short note on Scalar data type
8. Explain properties of elementary data types
9. Explain role of a programming language.
10. Write stages to convert source program into intermediate code

UNIT-2

1. Explain declaration and initialization of array with example.
2. Which are different ways of declaring arrays in Java
3. Write a Java program to sum even numbers using a while loop.
4. Java program to sort elements in an array
5. Java Program to find if given year is leap year
6. Write a java program to find even and odd numbers in an array
7. Write a java program to compare strings
8. Write a program for testing a string whether it is palindrome or not
9. Write a Java Program to Display All Prime Numbers from 1 to 100(Use Continue Statement)
10. Difference between primitive data types vs user defined

UNIT-3

1. Explain java packages
2. Explain Dynamic method dispatch while overriding methods.
3. Explain Multilevel Inheritance in Java with suitable diagram and explain.
4. Write a program to implement Interface in Java.
5. Write a program Demonstrating factorial of first n number using class and object concept.
6. Make use of abstract class to find area of square, cube and square root.
7. Implement a Java Program to find the area of a circle using a parameterized constructor. Make use of 'this' keyword
8. What is Inheritance? Explain the types of inheritances in Java.

9. Explain packages in Java? Explain how to create userdefined package in java with example
10. Differentiate method Overriding and method Overloading
11. How static, final keywords are used in Java with an example.
12. Explain abstract class with examples. Differentiate between Abstract class and Interfaces in Java
13. Explain Constructor in Java with example
14. Explain the use of static variable and static method in java Variable with example
15. Write significance of keyword 'super'? Demonstrate with example each of the cases.
16. Describe Using 'super' to call super class constructer
17. Explain Garbage collector and Finalize().
18. Explain the concept of dynamic method dispatch with example.
19. Explain use of Interface in Java. How it is different from a class?
20. Illustrate use of Packages? How access protection is provided to packages?

UNIT-4

1. What is Exception? How is it handled? Explain with suitableexample.
2. Discuss exception handling in Java in detail? explain theadvantages of exception handling
3. State with example the use of following built in exception in Java
    - IllegalArgument Exception
    - Arithmetic Exception
    - NumberFormatException
    - StringIndexOutOfBoundException
    - Null Pointer Exception
    - ArrayIndexOutOfBoundException
4. Explain Chained exceptions.
5. Explain nested try statements in Java with example.
6. What are the different types of errors? What is the use of throw, throws, finally.
7. Differentiate between throw and throws keywords in Java.
8. Implement a Java Program to handle Multiple Exceptionsjava.
9. Demonstrate how user defined Exceptions are created
10. Illustrate with example how Synchronization is achieved in Java.
11. Apply the concept of thread to reserve berth in railway reservation system.
12. Explain threads lifecycle in detail.
13. Explain in detail Thread priorities.

14. Implement a program that creates 3 threads?
15. Implement a program to throw a user defined exception“String Mismatch” if two strings are not equal.
16. Explain how threads acting on same object are synchronized.
17. Explain use of threads in multitasking.
18. Explain Messaging.
19. Expalin Built-in exceptions, and Chained exceptions.
20. Differentiate between checked and unchecked exceptions.

UNIT-5

1. What is a Lambda function? Explain with example.
2. Use arithmetic operators in Lisp.
3. How rules are defined in Lisp.
4. Demonstrate with an example how to code in LISP?
5. What is the significance of first-class functions in Lisp, andhow do they support functional programming paradigms?
6. Write a LISP expression using nums, filter, and prime whichis the list of prime numbers in the range 1..100.
7. List Features of LISP.
8. What are 3 elements of Prolog?
9. Explain Facts in Prolog.
10. What is LISP? Give an example of some of the popular applications built in LISP.
11. How recursion is achieved in Lisp.
12. Which are the Basic building blocks of Lisp.
13. Explain features of PROLOG Language?
14. Write a PROLOG program to find largest number from a given List
15. Explain following predicates in LISP

•Atom•Equal• Evenp• Listp• Numberp