END-SEM QUESTION BANK

PRINCIPLES OF PROGRAMMING LANGUAGES

Unit-3

1) List out Features of java programming and explain in detail
2) What are primitive data types and non-primitive data types? Explain in details
3) Write a program in java to perform addition of two matrix.
4) What is string in java? Explain following operation
   a) To find length of the string
   b) To compare two strings
   c) To reverse the string
5) What is constructor and its type. Explain with example
6) What is garbage collection and explain finalize() method
7) What is difference between method overloading and method overriding.
8) What is static variable and static method in java? Give the example of static declaration. What are the restrictions on methods which are declared static?
9) What is difference between command line arguments and variable length arguments? Explain with suitable example.
10) How different types of arrays are declared in JAVA. Explain with example with alternative syntax.

Unit-4

1) What is inheritance? what are advantages of using inheritance? Give the example the multilevel inheritance in java.
2) What is constructor? Show with example the use and overloading of default , parameterized and copy constructor
3) Explain Dynamic method dispatch while overriding method in inheritance. Give the example
4) What is mean by package and interface in java? explain with suitable example
5) What is an exception in java? What do you mean by handling an exception? Give example to show use of try (), catch(), throw(). Throws()
6) What are the types of exception? explain any 3 built-in exceptions with suitable example
7) Which class supports character input to the program? Write a program to read the name of user and display welcome message
8) What is use of PrintStream and Print Writer classes
9) What is difference between ByteStream, CharacterStream and PredefinedStream?
10) What are predefined *I*/O classes? Show with example how bufferedReader class is used in java to receive character and String inputs?

Unit-5

1) Why concurrency and synchronization are important? How java supports it. Explain with example
2) Explain thread life cycle.
3) Differentiate between processed based multitasking Vs. thread based multitasking.
4) Explain the different ways of creating Thread.
5) What are thread priorities? How thread are priorities in Java?
6) Explain isAlive() and join() method with program.
7) What is synchronization in Java when do we use it?
8) Write a short note on role of javascript in web application.
9) What are features of React.js?
10) What is AngularJs? Compare it with Vue js and ReactJs

Unit-6

1) What is functional Programming? What are the applications of Functional Programming?
2) Explain LISP Program Structure with example.
3) Which are the basic building blocks of LISP?
4) Explain the following LISP term: - CAR, CDR, expt, length, equal, defun.
5) What are predicates in LISP? List any 5 predicates with suitable example.
6) List and explain list manipulating functions.
7) Explain recursion in LISP.
8) Write a note on Lambda function and atoms in LISP.
9) Compare and contrast between functional and logical programming paradigms.
10) Why to use prolog programming language? Name the areas in which prolog programming language is used.
11) Explain how backtracking works in Prolog with suitable example.
12) Explain the structure of Prolog system.
13) What is data object in Prolog?
14) How Lists are represented in Prolog? Explain basic operations on lists.

15) Explain the following preliminary notation used by prolog with suitable example

a. Facts
b. Clauses
c. Rules
d. Query
e. Deductions