UNIVERSITY OF KERALA
SCHOOL OF DISTANCE EDUCATION
ASSIGNMENT
IVth SEMESTER (B.Sc. Computer Science)

CS1441 Design And Analysis of Algorithms

1. What are randomized algorithms? Explain.
2. What are NP hard and NP complete problems? Explain.
3. What is back tracking? Explain how 8-queens problem can be solved using backtracking.
4. What are spanning trees? Explain the different algorithms to determine minimum cost spanning tree with examples.
5. Explain the recursive algorithm to find the minimum and maximum element in an array.

CS1442 Database Management Systems

1. Explain the fundamental operations of relational algebra.
2. Discuss about data dictionary.
3. Discuss tuple relational calculus.
4. Discuss the pitfalls in relational database design.
5. Discuss the referential integrity in detail with example.

CS1443 Computer Networks

1. Explain terrestrial and satellite microwave transmission.
2. What is data fragmentation? Explain.
3. Explain Carrier Sense Multiple Access Protocol and its types.
4. Explain error control mechanism in networks.
5. Explain file transfer protocols.

CS1444 Programming in Java

1. Explain Java Constructors and finalizer with an example.

2. Explain the creation of thread using Runnable interface.

3. Explain AWT and Event handling mechanism in Java.

4. Explain abstract class and method in Java. Give suitable examples.

5. Explain exception handling in Java.