# Assignment Questions(2021 Admission)

# III$^{rd}$ Semester M. Sc Computer Science

# School of Distance Education, University of Kerala

## DCS31 Data Mining and Warehousing

1. what are the methods for data transformations? Explain.

2. Explain about data cube materialization.

3. what are the general strategies for data cube computation? Explain.

4. Explain the terms

   a. Web mining

   b. Text mining

   c. Spatial and temporal mining

5. Explain hierarchical methods in datamining and also Explain

   1) BIRCH

   2. CHAMELEON

## DCS32 Distributed Systems and Cloud Computing

1. Briefly explain NFS and AFS?
2. Illustrate with examples ,the role of threads in distributed systems.
3. What are distributed deadlocks? Explain deadlock detection in distributed transactions
4. What are the basic components of service-oriented architecture? Explain each in brief.
5. What are the advantages and disadvantages of cloud-based storage?

## DCS33 Information Security

1. With the neat diagram explain working of DES
2. Consider the elliptic curve $y^2=x^3+2x+4$ defined over the prime field $Z_{13}$.Find all points on the curve.
3. Discuss Firewalls with its classification.
4. Compare IPSec transport mode and tunnel mode.
5. Illustrate the working of MD5 algorithm.

## DCS34 Compiler Design

1. Write in detail about recursive descent parser and predictive parsers.

2. Explain about Linkage editors and Bootstrap compilers.

3. Explain the microprocessor design operations.

4. Explain the advantages of writing compilers with different phases ,instea of a monolithic program.

.5. Translate the following expression to quadruple, triple and indirect triple

$$a + b \times c / e \uparrow f + b \times c$$

**DCS 35 B Digital Image Processing**

1.  Formulate the fundamental steps in digital image processing.

2.  Discuss the procedure for JPEG compression?

3. Discuss image subtraction and averaging

4. Explain how the Laplacian filter can be applied in the frequency domain.

5. Write a detailed note on smoothing spatial filters.