ASSIGNMENT QUESTIONS

III SEMESTER

M. SC COMPUTER SCIENCE (2023 ADMISSION)

SCHOOL OF DISTANCE EDUCATION,

UNIVERSITY OF KERALA

DCS31 Data Mining and Warehousing

1. What is Bayes Theorem? Explain.
2. Explain about data cube materialization.
3. What are partitioning methods? Discuss about K-Means clustering method.
4. Explain the terms
   a. Data cleaning
   b. Web mining
   c. OLAP
   d. BIRCH
   e. CHAMELEON
5. Explain hierarchical methods in datamining.

DCS32 Distributed Systems and Cloud Computing

1. Briefly explain NFS and AFS?
2. Explain the types of distributed systems architecture.
3. What are distributed deadlocks? Explain deadlock detection in distributed transactions
4. Discuss the replication system model.
5. Describe the schemes of data storage in the cloud.

DCS33 Information Security

1. With the neat diagram explain IDEA Symmetric key block cipher encryption algorithm.
2. Analyze elliptic curve cryptography with suitable example.
3. Explain DSA in detail.
4. Write a short note on
   a) SSH
   b) Digital watermarking
   c) WEP
   d) Tiger hash
5. Compare IPSec transport mode and tunnel mode.

DCS34 Compiler Design

1. Write in detail about one pass assembler.
2. Explain about Linkage editors and Bootstrap compilers.
3. Write short note on
    a) LR Parser
    b) YAAC
    c) LEX
    d) DFA
4. Explain the advantages of writing compilers with different phases, instep of a monolithic program.
5. Explain loop optimization with example.

DCS 35 B Digital Image Processing

1. Formulate the fundamental steps in digital image processing.
2. Discuss the procedure for JPEG compression?
3. Write a short note on
    a) Histogram matching.
    b) Lossy compression
    c) Interpixel redundancy.
    d) Log transformations.
4. Explain how the Laplacian filter can be applied in the frequency domain.
5. Write a detailed note on smoothing spatial filters.

****