

Master of Technology
Second Semester Examination, June-2021
Web Technology [MTCSE201]

Time: 3:00 Hrs

Max Marks 70

Note : Attempt any five questions.
All questions carry equal marks.

- Q.1 What do you mean by cookies? List out its advantages and disadvantages.
- Q.2 What is DNS server? Different between primary and secondary DNS server.
- Q.3 Explain briefly the life cycle of applets. What are the basic steps of creating applets? Write a hello world applet program.
- Q.4 What is HTTP? Explain its utility and the various methods used by HTTP.
- Q.5 What is a search engine? What are the main principles used by a search engine to retrieve information from the web? Give the name of some popular engines
- Q.6 What is E-governance? Discuss briefly its evolution.
- Q.7 What is a digital signature? State the needs of digital signature during data transmission
- Q.8 What is public key encryption? In what ways is it different from private key encryption?

Master of Technology
Second Semester Examination, June-2021
Information Theory Coding and Cryptography [MTCSE202]

Time: 3:00 Hrs

Max Marks 70

Note: (i) Attempt any five questions out of eight.
(ii) Each question carries equal marks.
(iii) Assume suitable data if necessary and state them clearly.

- Q.1 What are the stages in each round of advanced encryption standard (AES) structure?
- Q.2 Discuss in brief about Shannonfano coding and Lempel Ziv algorithm.
- Q.3 What is the difference between SSL connection and SSL session?
- Q.4 In a finite Markov chain, show that not all states are transient or null recurrent
- Q.5 The cipher text UCR was encrypted using the affine function $9x + 2 \pmod{26}$. Find the plaintext.
- Q.6 What are the stages in each round of Advanced Encryption standard (AES) structure?
- Q.7 List the requirement for database security.
- Q.8 Encrypt the message "how are you" using the affine function $'5x+7 \pmod{26}$. What is the decryption function?

Master of Technology
Second Semester Examination, June-2021
Advance Database Management System [MTCSE203]

Time: 3:00 Hrs.

Max Marks 70

Note : (i) Attempt any five questions out of eight.
(ii) All question carry equal marks.

- Q.1 Discuss the main characteristics of the database approach and how it differs from traditional file system.
- Q.2 What do you understand by distributed databases? Give the various advantages and disadvantages of distributed database management systems.
- Q.3 How data mining system can be integrated with data warehouse system? What is logical data independence and why is it important?
- Q.4 What do you understand by timestamp based protocol? Discuss multi-version scheme also.
- Q.5 Differentiate among candidate key, primary key, super key and foreign key.
- Q.6 Describe the overall structure of a general database management system.
- Q.7 What do you mean by data abstraction, views data model, DDL, DML. Discuss all its types.
- Q.8 Define the following terms: entity, attribute, relationship type, attribute type, relationship set.

Master of Technology
Second Semester Examination, June-2021
Advance Soft Computing [MTCSE204]

Time: 3:00 Hrs.

Max Marks 70

Note : Attempt any five questions out of eight.
All question carry equal marks.

- Q.1 What are the various Tools and Techniques useful for soft computing? Write the Applications of Soft computing.
- Q.1 Give a detailed description of various Artificial Neural network architectures and also explain various learning techniques.
- Q.1 Explain in detail Unsupervised Learning Neural Networks and Supervised Learning Neural Networks with example.
- Q.1 Write the Back Propagation Algorithms. Discuss the Convergence issues in the back propagation algorithms.
- Q.1 Explain Adaptive Resonance Theory in detail. Write their Applications.
- Q.1 Define Genetic Algorithms. Explain the various Operators of GA.
- Q.1 Difference between Traditional Algorithms and Genetic Algorithm. Write applications of Genetic Algorithm. State the importance of genetic algorithm.
- Q.1 Give a detailed description of Operations on Fuzzy Sets. Explain Fuzzy Logic in detail. Give its Applications.
- Q.1 Write Short notes on the following:-
- (a) Rough Sets.
 - (b) Decision Tables and their Applications.
 - (c) Neural-Network-Based Fuzzy Systems.
 - (d) Genetic Algorithms for Neural Network.

Master of Technology
Second Semester Examination, June-2021
Adhoc Networks [MTCSE-205-I]

Time: 3:00 Hrs

Max Marks 70

Note : Attempt any five questions out of eight.
All question carry equal marks.

- Q.1 (a) What is Adhoc wireless network? What are the issues and challenges of Adhoc wireless network?
(b) Explain DSDV in detail.
- Q.2 (a) Differentiate between reactive and proactive protocol.
(b) Give comparison of HF-Becoming with and without neighbors.
- Q.3 (a) What are table driven routing protocols. Explain any one of them.
(b) Explain tree based and mesh based multicast routing protocols.
- Q.4 (a) What is a multicast routing protocol? What is QOS in it?
(b) Explain secure routing mechanism in Adhoc wireless network.
- Q.5 (a) Explain QOS framework in detail.
(b) Discuss the MAC layer solution?
- Q.6 (a) What is security provisioning? Discuss the issues.
(b) What is the energy management in Adhoc wireless network?
- Q.7 (a) What are multichannel and single channel MAC protocols?
(b) Give comparison LF becoming with neighboring nodes.
- Q.8 Write short note on:-
(i) DSR
(ii) TORA
(iii) STAR
(iv) RIP