Master of Technology
Third Semester Main Examination, Dec-2020
Data Mining and Warehousing [MTCSE301(1)]

Time: 3:00 Hrs   **Max Marks 70**

Note : Attempt any five questions. All questions carry equal marks.
Any data required but not provided may be assumed.

Q.1   What is data mining? Explain how the evolution of database technology leads to data mining.

Q.2   Differentiate between multi-level and multi-dimensional association rules.

Q.3   What is meant by data transformation? What are the various ways of data transformation?

Q.4   What is text mining? How is it different from web content mining?

Q.5   Differentiate between K-means and K-medoids partitioning methods.

Q,6   What are the reasons for implementing a separate ODS & DWH?

Q.7   What is clustering? What are the different categories of clustering methods?

Q.8   Write short notes on-   (Any-4)
               (i) Snow flake schema and fact constellation
               (ii) Motion analysis
               (iii) Time series analysis
               (iv) Data Mart and Distributed Data Mart
               (v) Outlier analysis.
               (vi) Web Usage mining

Master of Technology
Third Semester Main Examination, Dec-2020
Network Security & Cryptography [MTCSE302(1)]

Time: 3:00 Hrs   **Max Marks 70**

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

Q.1   What is the difference between poly alphabetic and mono alphabetic ciphers?

Q.2   How Key distribution is achieved in symmetric key cryptography? What is key management?

Q.3   Explain DES,3 DES and what are its strength?

Q.4   Explain that the Electronic Code Book (ECB) mode is not a secured mode of encryption and highlight the problems with this mode.

Q.5   How does worms and viruses compare? Describe the components of the virus and how does it protect from anti-virus software's?

Q.6   What is the difference of an Intrusion Detection System (IDS) and firewall?

Q.7   Explain the working principle of Differential Power Attacks (DPA) and show how can be used to attack cryptosystems. Explain with the help of an example of a block cipher.

Q.8   What basic arithmetical and logical functions are used in MD-5? Explain SHA-1.