JAMIA HAMDARD
DEPARTMENT OF COMPUTER SCIENCE AND ENGINNERING
SCHOOL OF ENGINEERING SCIENCE & TECHNOLOGY
New Delhi-110062

Data Encryption and Compression – MTCFIS PE231
M.Tech (CFIS) 2nd semester 2023

Duration: 2:50 hours. **Max. Marks : 60**

Section A (5*4 =20)
Attempt all Questions

Q. No.	Questions	Marks	CO	BL
Q1.	Key is one of the most important feature for data encryption. Discuss the role of key range and size with the help of example.	5	CO1	BL5
Q2.	Discuss the mode of operation of Block Cipher Stream Cipher	5	CO2	BL4
Q3.	Discuss with help of suitable diagram the role of Markov Model Hash Technique in data encryption.	5	CO3	BL3
Q4.	Discuss the Architecture of Compression Pipeline in detail.	5	CO5	BL4

Section B (10*4=40)
Attempt any 4 questions

Q1.	Discuss the method to calculate Entropy for a Random Variable. Give example for Shannon entropy.	10	CO1	BL5,6
Q2.	Give the formula for calculating Compression RATIO to evaluate the performance of data compression methods.	10	CO2	BL6
Q3.	Discuss Differentiate Manchester encoding Technique and the relevance of the Non Return to Zero concept in it.	10	CO3	BL1,2
Q 4.	Differentiate between Denial of Service attach Spoofing Attach	10	CO4	BL4
Q5.	Plain Text BLESSED Key Size +5 Use Ceaser Cipher Technique Huffman Coding Technique to encode the above word.	10	CO5	BL4,5
Q 6.	Name and explain any 2 Asymmetric and Symmetric encryption techniques.	10	CO3	BL 2,3