

**BE Semester- VI (ATKT IT) Question Bank**  
**Data compression**

**All questions carry equal marks (10 marks)**

Q.1	What is Data Compression? Why it is needed?
Q.2	Explain the Sahnnon-Fano Algorithm.
Q.3	Explain the Huffman Algorithm.
Q.4	What is Adaptive Coding? Write short note on it.
Q.5	Explain update procedure for Adaptive Huffman Coding.
Q.6	What is Arithmetic Coding? Explain it in detail.
Q.7	What are the difficulties in Arithmetic Coding? Explain it.
Q.8	Explain Dictionary-Based Compression with example.
Q.9	Explain Static method and adaptive method.
Q.10	Explain Sliding Window Compression with the help of suitable example.
Q.11	Explain A balancing Act Greedy vs. Best Possible.
Q.12	Explain Speech Compression in detail.
Q.13	What is Lossless Compression of Sound and Loss compression?
Q.14	Explain Lossy Graphics Compression.
Q.15	Explain Discrete Cosine Transform method.
Q.16	Explain The Forward DCT Routine.
Q.17	Explain The Inverse DCT in detail.
Q.18	What are the improvements of LZSS on LZ77 algorithm? Explain how it is better.
Q.19	Mention and discuss the different parameters used to evaluate the performance of compression algorithm.
Q.20	What is commanding? Why it is important in speech compression? Explain with the help of an example

Q.21	What do you mean by lossless compression and lossy compression? Compare lossless compression with lossy compression.
Q.22	Define the term data modeling? Explain various mathematical model used for data modeling in detail.
Q.23	How modeling and coding are related? Explain with help of examples.
Q.24	Explain Dictionary Compression in detail.
Q.25	Define Data Compression. State and explain the application of data compression in various areas. State early examples of Data Compression.
Q.26	Compare Arithmetic and Huffman coding.
Q.27	What do you mean by Redundancy of code? How can we define and calculate it?
Q.28	What is Adaptive quantization? Explain the various approaches to adapting the quantizer parameters.
Q.29	Explain JPEG Compression with example.
Q.30	Write down application of Huffman coding in text compression and audio compression. Explain it in detail.
Q.31	Explain Statistical Compression detail.
Q.32	Explain Modelling and Coding with the help of some suitable example.
Q.33	State and explain various application of Huffman coding.
Q.34	Write down some of the performance measure criteria of compression. Which are the additional techniques to evaluate the performance of lossy compression techniques?
Q.35	Give LZ77 approach for adaptive dictionary based encoding.
Q.36	What is Quantization? Explain Various Quantization techniques briefly.
Q.37	Justify the need for Data compression. What are the different measurements to measure the different compression algorithm?
Q.38	What are the advantages of static dictionary compression techniques?
Q.39	Compare and contrast LZ77 and LZ78 with examples.
Q.40	What is Data Compression? Why we need it? Explain Compression and Reconstruction with the help of block diagram.