

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT  
TEST-1 EXAMINATION-SEPTEMBER 2024

B.Tech Vth Semester

Course Code: 18B1WCI532

Course Name: Data Compression

Course Credits: 02

Max Marks: 15

Max Time: 01:00 Hours

*Note: All questions are compulsory. Carrying of mobile phone during examination will be treated as case of unfair means*

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- Q1. Write the difference between Golomb, Tunstall and Huffman coding techniques? CO [1] (3)
- Q2. Calculate the entropy if  $P(a) = 0.5$ ,  $P(b) = 0.25$ ,  $P(c) = 0.125$ ,  $P(d) = 0.125$ ? CO [1] (2)
- Q3. What will be the binary representation using Huffman Codes for message "Himachal Pradesh is the beautiful and peaceful state in india"? CO [2] (5)
- Q4. Find the golomb code for binary count  $N = 57, 103, 17, 31$ , and  $M = 6$ ? CO [2] (2)
- Q5. What will be the decoded binary message for the encoded message using the run length encoding technique CO [2] (3)
- "000011000011000001110011000110101010011" for  $k = 3$  bits?