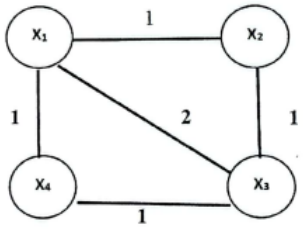
INDEX

SL. NO	Experiment Name	Page
01	Write a program to implement Huffman code using symbols with their corresponding probabilities.	
02	Write a program to simulate convolutional coding based on their encoder structure.	
03	Write a program to implement Lempel-Ziv code.	
04	Write a program to implement Hamming code.	
05	A binary symmetric channel has the following noise matix with probability, $P(Y/X) = \begin{bmatrix} \frac{2}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{2}{3} \end{bmatrix}$. Now find the Channel Capacity C.	
06	Write a program to check the optimality of Huffman code.	
07	Write a code to find the entropy rate of a random walk on the following weighted graph 	
08	Write a program to find conditional entropy and join entropy and mutual information based on the following matrix.	

Y \ X	1	2	3	4
1	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	$\frac{1}{32}$
2	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{32}$	$\frac{1}{32}$
3	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$
4	$\frac{1}{4}$	0	0	0