

Department of Electronics & Communication Engineering

Faculty of Engineering, Integral University, Lucknow

Quiz 2

Information Theory & Coding (EC-031)

Candidate Name & Roll Number :

Date :

Maximum Marks : 10

Group: Final Year EC-1

1. Consider a Binary Symmetric Channel shown in the Fig 1.1 is emitting two symbols x_1 & x_2 and it's symbol emitting probability respectively is given as p & $(1-p)$.

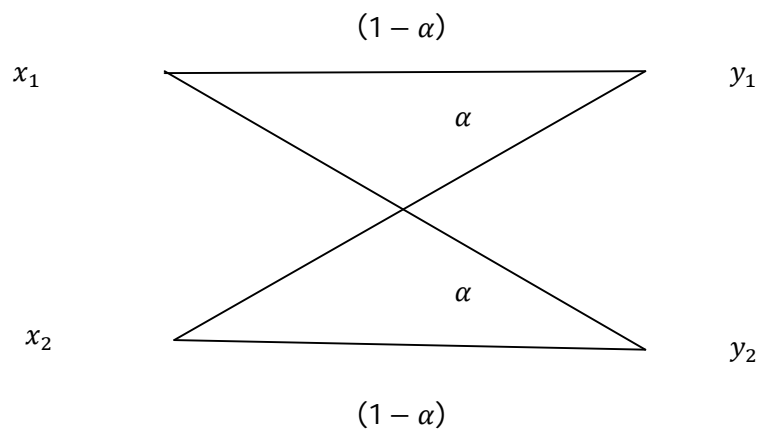


Fig 1.1 : Binary Symmetric Channel

Calculate the following parameters

- (a). $H(X)$
- (b). $H(Y)$
- (c). $H(X/Y)$
- (d). $H(Y/X)$
- (e). $I(X;Y)$