

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

Mid Semester Examination Synoptic

Q No.		Max. Marks	CO
Q.1 (a)	<p>Consider a noiseless channel with a bandwidth of 3000 Hz transmitting a signal with 2 signal level. Calculate maximum bit rate?</p> <ul style="list-style-type: none"> • 1 Marks for Nyquist Bit Rate Definition. • 1 Marks for formula:- $Bit - Rate = 2 * bandwidth * \log_2 L$ where L is level. • 2 Marks for calculations:- $Bit - Rate = 2 * 3000 * \log_2 2 = 6000bps$ 	4	1
Q.1 (b)	<p>Describe various transmission impairments</p> <ul style="list-style-type: none"> • 1 marks for transmission impairments explanation. • 1 marks listing various transmission impairment. • 2 marks explaining in brief. <p style="text-align: center;">OR</p> <p>Illustrate Signal propagation with neat block diagram</p> <ul style="list-style-type: none"> • 1 marks for Signal propagation explanation • 1 marks for block diagram • 2 marks for block diagram explanation 	4	1

Q.2	<p>Illustrate Star, Bus and Ring Topology with Advantage and Disadvantages?</p> <ul style="list-style-type: none"> • 1 marks for Topology explanation • 1 marks for Diagram for each Topology with labeling component • 2 marks for explanation of each topology • 2 marks for Advantages and Disadvantages of each topology. <p>OR</p> <p>List the different types of Communication and Mode of Communication. Explain with Neat Diagram.</p> <ul style="list-style-type: none"> • 2 marks Listing and Explanation Type of Communication • 2 marks Listing and Explanation Mode of Communication. • 1 marks each for diagrams 	6	2
Q.3	<p>Compare ISO-OSI and TCP/IP Model with neat diagram</p> <ul style="list-style-type: none"> • 1 marks Diagram for each diagram OSI and TCP/IP. • 1 marks Definitions for each OSI and TCP/IP. • 2 marks for Comparison. 	6	3