

Syn



Sardar Patel Institute of Technology

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

(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination - Synoptic

Aug 2017

Max. Marks: 30

Class: T.E.

Course Code: CPC504

Name of the Course: Computer Networks

Duration: 90 Min

Semester: V

Branch: Computers

Instruction:

- (1) All questions are compulsory
- (2) Draw neat diagrams
- (3) Assume suitable data if necessary

Q No.	Question	Max. Marks	CO
Q.1(a)	List the functionalities of any five layers in the OSI reference model. Answer: (1 mark for each layer with correctly listed functionalities) * 5 - 5 marks	05	CO1
Q.1(b)	Explain Mesh topology in detail along with advantages and disadvantages. Answer: Explained Mesh topology - 1mark Explained types of mesh topology - 2marks Advantages of mesh topology - 1 marks Disadvantages of mesh topology - 1 marks	05	CO1
Q.2 (a)	Why insulated conductors are twisted with each other in the twisted pair cable ? Why Optical Fibre Cable needs less number of repeaters ? Answer: Explained what each cable carry and why it is twisted -3 marks Explained the reason behind less attenuation and what role repeaters play - 2marks	05	CO2
Q.2 (b)	What is Bluetooth ? Explain the types of network architectures in the in bluetooth ? Answer: Explained bluetooth - 1mark Explained piconet - 3marks (Master and slave architecture, Active and Parked nodes explanation expected) Explain Scatternet - 2 marks (How two or more piconet forms sact-ternet)	05	CO2
Q.3 (a)	If dataword is 1110 then deduct the required number of parity bit and corresponding codeword using Hamming Code with even parity. Answer: Calculation of required number of parity bits - 1 mark Calculation each parity bit - 1 mark * 3 - 3 marks Correct codeword generated - 1 mark	05	CO2