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Total Number of Pages: 2

B.TECH
PCS6G001

6th Semester Regular Examination 2017-18
COMPUTER NETWORK AND DATA COMMUNICATION

BRANCH: CSE

Time: 3 Hours

Max Marks: 100

Q.CODE: C493

Answer Part-A which is compulsory and any four from Part-B.
The figures in the right hand margin indicate marks.
Answer all parts of a question at a place.

Part – A (Answer all the questions)

Q1 Answer the following questions: *multiple type or dash fill up type* **(2 x 10)**

- a) Flow control is the responsibility of ----- and ----- layers of OSI Model?
- b) Unmodulated signal coming from a transmitter is known as -----?
- c) in ----- encoding, the inversion at the middle of the bit interval is used for synchronization?
- d) ----- type of error detection method is based on concept of Redundancy?
- e) In Go Back N ARQ the window size in receiver side is always -----?
- f) Slotted aloha enhances the best possible throughput from-----% to -----%?
- g) In an optical fiber inner core is ----- than cladding?
- h) Connection establishment involves a ----- handshake?
- i) A bridge has access to the ----- address of a station on the same network?
- j) A subnet mask in Class A network has fourteen 1's.it can define ---- no of subnets?

Q2 Answer the following questions: *Short answer type* **(2 x 10)**

- a) What is the difference between logical address and physical address?
- b) What do you mean by data communication? Mention the factors on which effectiveness of data communication depends?
- c) Define framing bits? Why is it needed in TDMS?
- d) What is the difference between switch and hub?
- e) What do you mean by hamming code? Why is it needed?
- f) What is the difference between channel partitioning protocol and random access protocol? Give two examples for each?
- g) What are the advantages and disadvantages of static routing?
- h) What is the significance of www in internet?
- i) Define ICMP? What are the advantages of ICMP over IP?
- j) What is DNS? Why is it needed?

Part – B (Answer any four questions)

- Q3** a) What do you mean by Transmission media? Describe different types of transmission media with advantages and disadvantages of each? (10)
b) Define multiplexing? Describe different types of multiplexing briefly? (5)
- Q4** a) Define Error? Describe different types of error briefly? Discuss various error detection methods with example? (10)
b) What is bridge? Describe different types of bridge briefly? (5)
- Q5** What do you mean by flow control and Error control? Describe different types of flow control and Error control mechanisms with neat and clean diagram? (15)
- Q6** a) What is IPv4 and IPv6? What are the disadvantages of IPv4? Describe IPv6 packet format with neat and clean diagram? What are the advantages of IPv6? (10)
b) What is the difference between TCP and UDP? (5)
- Q7** a) What is ATM? Describe the architecture and various layers of Frame relay? (10)
b) What is CSMA/CD? Describe how it works? (5)
- Q8** a) What is HTTP? Describe different types of HTTP? (5)
b) Define SMTP? Describe how it works? (5)
c) What is the difference between Wifi and Lifi? (5)
- Q9** Write short notes on any three (5*3)
a) RARP
b) Bluetooth
c) Fast Ethernet
d) DDNS
e) Repeater