

Seat Number

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DH-42

CS-603

**Computer Network
(862403)**

Total Pages : 5]

Time : 2 Hours

Max Marks : 60

- Note :** (1) Do not write anything on question paper except Seat No.
- (2) All questions are compulsory.
- (3) Figures to the right indicate full marks.
- (4) Students should note, no supplement will be provided.
- (5) Graph or diagram should be drawn with the black ink pen or black HB pencil.

1. (A) Attempt any *six* of the following : 6
- (i) The technique of temporarily delaying outgoing acknowledgements so that they can be hooked onto the next outgoing dataframe is called
- (a) piggybacking
- (b) fletcher's checksum
- (c) parity check
- (d) cyclic redundancy check

P.T.O.

(ii) Which of the following layers is an addition to OSI model when compared with TCP IP model ?

- (a) Application layer
- (b) Presentation layer
- (c) Session layer
- (d) Session and Presentation layer

(iii) Which transmission media provides the highest transmission speed in a network ?

- (a) coaxial cable
- (b) twisted pair cable
- (c) optical fiber
- (d) electrical cable

(iv) Which layer is responsible for process to process delivery in a general network model ?

- (a) network layer
- (b) transport layer
- (c) session
- (d) data link layer

- (v) Transmission data rate is decided by
- (a) network layer
 - (b) physical layer
 - (c) data link layer
 - (d) transport layer
- (vi) Communication between a computer and a keyboard involves transmission.
- (a) Automatic
 - (b) Half-duplex
 - (c) Full-duplex
 - (d) Simplex
- (vii) CRC stands for :
- (a) Cyclic Redundancy Check
 - (b) Code Repeat Check
 - (c) Code Redundancy Check
 - (d) Cyclic Repeat Check
- (viii) In the OSI model, as a data packet moves from the lower to the upper layers, headers are :
- (a) Added
 - (b) Removed
 - (c) Rearranged
 - (d) Randomized

(B) Attempt any six of the following :

6

- (i) Define Network.
- (ii) What is Protocol ?
- (iii) Define Routing.
- (iv) What is Demultiplexing ?
- (v) Which layers are user support layers ?
- (vi) What are *three* major classes of guided media ?
- (vii) What is Framing ?
- (viii) Define Cryptography.

2. Attempt any six of the following :

12

- (i) What are the responsibilities of Session Layer ?
- (ii) Which layers are network support layers ?
- (iii) Name the categories of Multiplexing.
- (iv) Define Bit rate and Baud rate.
- (v) What is digital signature ?
- (vi) What is plain text ?
- (vii) Give applications of computer network.
- (viii) Define error control and flow control.
- (ix) Explain substitution technique

3. Attempt any *four* of the following : 12
- (i) Explain classless addressing.
 - (ii) Write a short note on coaxial cable.
 - (iii) Explain shortest path routing algorithm.
 - (iv) Explain client server paradigm.
 - (v) Explain transposition method of cryptography.
 - (vi) What are deadlocks ?
4. Attempt any *three* of the following : 12
- (i) Differentiate between connection oriented Vs. connectionless services.
 - (ii) Explain IPV4 addressing.
 - (iii) Explain hamming code in detail.
 - (iv) Write a short note on satellite transmission.
 - (v) Explain digital authorities.
5. Attempt any *two* of the following : 12
- (i) Explain CRC with example.
 - (ii) Explain TCP/IP model in detail.
 - (iii) What is topology ? Explain any *three* network topology.