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(CC – 7)

2021

Time : 3 hours

Full Marks : 60

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group – A

1. Select most appropriate answer from given choices : 1×10 = 10
 - (a) Which type of topology is best suited for large businesses which must carefully control and coordinate the operation of distributed branch outlets ?
 - (i) Ring
 - (ii) Local area
 - (iii) Hierarchical
 - (iv) Star

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(Turn over)

(b) "Parity bits" are used for which of the following purposes ?

- (i) Encryption of data
- (ii) To transmit faster
- (iii) To detect errors
- (iv) To identify the user

(c) Transport layer receives data in the form of _____.

- (i) Packets
- (ii) Byte streams
- (iii) Bits stream
- (iv) Both packets and Byte stream

(d) In OSI model Addressing, accounting and routing functions of the system are provided by _____.

- (i) Physical layer
- (ii) Data layer
- (iii) Network layer
- (iv) Transport layer

- (e) Main function of the data link layer is :
- (i) Hard ware link control and media access control
 - (ii) Data link control and Media access control
 - (iii) Data link control and protocol access control
 - (iv) Link Control Protocol
- (f) A _____ is a device that forward packets between networks by processing the routing information included in the packet.
- (i) Router
 - (ii) Bridge
 - (iii) Firewall
 - (iv) All of these
- (g) In TDM slots are further divided into _____.
- (i) Seconds

(ii) Frames

(iii) Packets

(iv) None of these

(h) Multiplexing technique that swifts each signal to a different carrier frequency :

(i) FDM

(ii) TDM

(iii) Both (i) and (ii)

(iv) None of these

(i) Application layer is which layer in OSI model ?

(i) 1st layer

(ii) 3rd layer

(iii) 7th layer

(iv) 5th layer

(j) A set of rules that governs data communication :

(i) Protocols

(ii) Standards

(iii) RFCs

(iv) None of these

2. Define network layer and its functions.

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(4)

Contd.

Group – B

Answer any **three** questions of the following :

15×3 = 45

3. What do you understand by data transmission ?
What are its different medium ? Discuss with neat diagram.
4. What is topology ? With neat diagram, discuss different topologies its advantages and limitations.
5. Explain TCP / IP reference model.
6. Discuss different networks switching techniques.
7. What is meant by Flow Control ? How flow control can be achieved using sliding window technique ?



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(5)

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