

2011

Session: 2010-11

Subject Code: V

Time : 3 Hours

Paper : CHN / 1 / V / 11

Full Marks : 80

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

The figure in the margin indicates full marks.

Answer from both the groups as directed.

GROUP - A

(Objective Type Questions - Compulsory)

Q.No. 1. Choose the correct answer of the following:

2 x 10 = 20

1. The main advantage of PCM is
 - a) Lower B.W
 - b) Lower Power
 - c) Lower Noise
 - d) None of the above
2. PCM stands for
 - a) Pulse code modulation
 - b) Prime code manipulator
 - c) Priority censor modulation
 - d) Priority code modulation
3. Which one is analog
 - a) PCM
 - b) Delta
 - c) Deferential PCM
 - d) PAM
4. In sampling theorem the Nytuist interval is given by
 - a) $T = 1 / f_m$
 - b) $T = 1 / \sum f_m$
 - c) $T = 1 / \pi f_m$
 - d) $T = \pi / f_m$

- a) To overcome quantizing noise in PCM.
 - b) To compact the PCM signal.
 - c) To protect small signals in PCM from quantizing distortion.
 - d) In PCM receiver to overcome impulse noise.
6. The biggest disadvantage on PCM is
- a) Its inability to handle analog signals.
 - b) The high error rate which its quantizing noise reduces.
 - c) Its incomparability TDM
 - d) The large BW
7. NGN stands for
- a) Non going networks
 - b) New gaging networks
 - c) New generation networks
 - d) Non granting networks
8. A short coming of packet switched network is that
- a) It is difficult to guarantee an end to end quality of service
 - b) It is impossible to switch LANs with WANs
 - c) Packets are not reliable
 - d) Packets are not routed properly
9. The access segment of new generation networks will consist of various different
- a) Broadband access technologies
 - b) Base band access nodes
 - c) Narrow bands technologies
 - d) WAN
10. A network layer is responsible for the routing of information between
- a) Nodes on a network
 - b) Conceptual view on a network
 - c) Logical points on a network
 - d) Physical points on a network

GROUP - B

(Long Answer Type Questions)

Answer any four questions. Each question carries 15 marks.

- Q.No. 2. Explain with diagram three states of channel in CSMA / CD. What is Available Bit Rate (ABR) service?
- Q.No. 3. What is the OSI reference model? What are the OSI primitives? How are these used in providing connectionless and connection oriented services?

- Q.No. 4. Using labeled diagram, explain, slow start procedure in TCP. State the motivating reasons to shift from IPv4 to IPv6.
- Q.No. 5. What are the salient features of ISDN? Discuss the functions of different layers in ISDN.
- Q.No. 6. What is the difference between internet & intranet? List and also explain the various types of security used by internet.
- Q.No. 7. Define the following terms:
(i) Multiplexing
(ii) Modulation
(iii) Transmission media
(iv) Network type
- Q.No. 8. Explain the concept of E-mail gateways. What are the functions of AAL in ATM?
- Q.No. 9. How are collisions resolved in multiple accesses using tree-splitting algorithm? Explain using a suitable diagram. Give ISDN frame structure.

