

**NC-104**

November-2023

B.C.A., Sem.-V

CC-303 : Computer Network**Time : 2½ Hours]****[Max. Marks : 70**

1. Answer the following :

- (1) List and explain modulation techniques. 7
- (2) Explain serial and parallel communication in data communication. 7

OR

- (1) Explain the use of PCM in analog signal, digital transmission. 7
- (2) What analogies can be used to explain simplex, half-duplex and full-duplex transmission ? 7

2. Answer the following :

- (1) Explain the technique called synchronous TDM. Contrast it with statistical TDM. 7
- (2) Explain how Cyclic Redundancy Check(CRC) works ? 7

OR

- (1) Explain difference between FDM and TDM. What is WDM ? 7
- (2) Describe Go-Back-n technique in detail. 7

3. Answer the following :

- (1) Discuss satellite communication in detail. 7
- (2) List network topologies. Explain any two in detail. 7

OR

- (1) Explain optical fiber cable with its propagation modes. 7
- (2) Explain packet switching with its methods. 7

4. Answer the following :

- (1) Discuss OSI model in detail. 7
- (2) Explain FDDI with self-healing mechanism. 7

OR

- (1) Explain ISDN interfaces with channel types. 7
- (2) Explain Router and Gateway in detail. 7

5. Answer the following : (Any Seven)

- (1) _____ signals are continuous in nature.
(a) Analog (b) Digital
(c) Mixed (d) None of the above
- (2) The number of cycles completed by a signal in one second is called its _____.
(a) Amplitude (b) Period (c) Frequency (d) Phase
- (3) Repeaters are used in _____ transmission of _____ signals.
(a) Analog, digital (b) Digital, digital
(c) Digital, analog (d) Analog, analog
- (4) As a signal travels through any medium, its strength decreases due to _____.
(a) Noise (b) Attenuation
(c) Delay distortion (d) Retransmission
- (5) The process of handling the signal off from the old channel to the new one is called _____.
(a) Transfer (b) Modification (c) Change (d) Handoff
- (6) Message switching is also called _____ technique.
(a) Get and hold (b) Store and forward
(c) Store and release (d) Store and never release
- (7) ISDN stands for _____ services digital network.
(a) Integrated (b) International (c) Internet (d) Interoperable
- (8) The standard for Bluetooth is called _____.
(a) IEEE 802.15 (b) IEEE 802.2 (c) IEEE 802.11 (d) IEEE 802.5
- (9) Generally, a _____ is used to divide a network into segments.
(a) Repeater (b) Router (c) Bridge (d) Gateway
- (10) _____ is the most commonly used transmission medium.
(a) Optical fiber (b) UTP (c) Coaxial Cable (d) STP
- (11) _____ helps Ethernet to recover from simultaneous transmission causing errors.
(a) CSMA/CD (b) CD (c) CSMA (d) Collision
- (12) Infrared communication is an example of _____ communication.
(a) Wired (b) Wireless
(c) Both (a) & (b) (d) None of the above