Department of Electronics and Communication Engineering

EC8008 PHOTONIC NETWORKS

Multiple Choice Questions Bank

UNIT-II: OPTICAL NETWORK ARCHITECTURES

1. The physical layer is responsible for _____
(a)Modulation
(b)Channel coding
(c) Line coding
(d) All the answers are correct
Answer: (d)

2. In the _____ topology, the data generally circulates bi-directionally.
(a)Ring
(b)Star
(c)Bus
(d)Mesh
Answer: (c)

3. SONET stands for _____
(a) Synchronous optical network
(b) Synchronous operational network
(c) Stream optical network
(d) Shell operational network
Answer: (a)

4._____ is a standard developed by ANSI for fiber optic networks.

(a)SONET
(b)SDH
(c) Either (a) or (b)
Answer: (b)

5. The photonic layer of the SONET is similar to the _____ of OSI model.
(a) Network layer
(b) Data link layer
(c) Physical layer
(d) Transport layer
Answer: (c)

6. A linear SONET network can be _____
(a) Point-to-point
(b) Multi-point
(c)Both point-to-point and multi-point
(d)Single point
Answer: (c)

7. What is SDH?
(a)SDH is similar standard to SONET developed by ITU-T
(b)Synchronous digital hierarchy
(c)SDH stands for synchronous digital hierarchy and is a similar standard to SONET developed by ITU-T
(d)none of the mentioned
Answer: (c)

8. In a type of computer network, what does MAN stands for?
(a)Major area network
(b)Metropolitan area network
(c)Mini area network
(d)Micro area network
Answer: (b)

9. The types of transmission channel or media used for LAN or WAN are __.

(a)Twisted Pair Cables
(b)Coaxial Cables
(c)Fiber-Optic Cables and Radio Waves
(d)All the above
Answer: (d)

10. A signal carried on a dedicated wavelength from source to destination node is known as a
_____

(a)Light path
(b)Light wave
(c)Light node
(d)Light source
Answer: (a)

11. The optical networking fundamentals are _____ of the transmission techniques.
(a)Dependent
(b) Independent
(c) Similar
(d) Dissimilar

Answer: (b)

12. A topology that is responsible for describing the geometric arrangement of components that make up the LAN.
(a) Complex
(b) Physical
(c) Logical
(d) Incremental
Answer: (b)

13. A term that refers to the way in which the nodes of a network are linked together.
(a) Network
(b) Topology
(c) Connection
(d) Interconnectivity
Answer: (b)

14. A _____WAN can be developed using leased private lines or any other transmission facility
(a) Hybrids
(b) Peer-to-peer
(c) Two-tiered
Answer: (b)

15. In TDM, slots are further divided into _____
(a) Seconds
(b) Frames
(c) Packets
(d) Bits
Answer: (b)

16. Which of the following is used to provide wavelength signal service among the nodes?
(a)Regularization
(b) Optical enhancing
(c) Hopping
(d) Pulse breakdown
Answer: (b)

17. How many types of hopping are present?
(a) Two
(b) One
(c) Three
(d) Four
Answer: (a)

18. How many switching layers are possessed by MG-OXC?
(a) Two
(b) Three
(c) One
(d) Six
Answer: (b)

19. What is the size of MAC Address?
(a) 16-bits
(b) 48-bits
(c):64 bits
Answer: (b)

20. Media access control is the sub layer of
(a)IEEE
(b)ANS
(c)LLC
Answer: (d)

21. The media access control layer frame has
(a) 5 fields
(b) 7fields
(c) 9 fields
(d) 10 fields
Answer: (c)

22. A _____ digital hierarchy was required to enable the international communications network to evolve in the optical fiber era.

(a)Asynchronous

(b) Dedicated

(c) Seismic

(d) Synchronous

 Answer: (d)

23. An advanced type of reconfigurable OTN is referred to as an _____

(a)Automatic OTN

(b)Auto-generated photon

(c)Automatically switched optical network

(d)Optical reimbursement

Answer: (c)

24. The _____ is a network layer that contains both addressing and control information to enable packets to be routed within a network.

(a) TCP

(b) Internet protocol (IP)

(c) UDP

(d) SONET/SDH protocol

Answer: (b)

25. The mapping of IP frames in SDH/SONET is accomplished in _____ stages.

(a) Four

(b) Two

(c) Three

(d) One

Answer: (c)