



Chettinad

College of Engineering & Technology

Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai.

Department of Electronics and Communication Engineering

EC8008 PHOTONIC NETWORKS

Multiple Choice Questions Bank

UNIT-V: NETWORK DESIGN AND MANAGEMENT

1. _____ must be operated in stimulated emission region.
 - a) **Injection laser**
 - b) LED's
 - c) Detector
 - d) Receiver

Answer :(a)
2. Extinction ratio is denoted by symbol _____.
 - a) ϵ
 - b) σ
 - c) β
 - d) ρ

Answer :(a)
3. The use of low impedance driving circuit may increase _____.
 - a) Noise
 - b) Width
 - c) Intensity
 - d) **Switching speed**

Answer :(d)
4. The finite spectral width of the optical source causes _____.
 - a) Depletion
 - b) Frequency burst
 - c) **Pulse broadening**
 - d) Efficient reflection

Answer :(c)

5. In an optical fiber communication system, which among the following is not a typical transmitter function?
- Coding for error protection
 - Decoding of input data
 - Electrical to optical conversion
 - d. Recoding to match output standard**

Answer :(d)

6. Which among the following is provided by an optical receiver for the regeneration of data signal with minimum error?
- Photo-diode
 - Signal Processing Circuits
 - c. Linear Circuitry**
 - None of the above

Answer :(c)

7. _____ limits receiver sensitivity.
- Noise**
 - Depletion layer
 - Avalanche
 - Current

Answer :(a)

8. A _____ performs the linear conversion of the received optical signal into an electric current.
- Receiver
 - Converter
 - c) Detector**
 - Reflector

Answer :(c)

9. _____ are provided to reduce distortion and to provide a suitable signal shape for the filter.
- Detector
 - b) Equalizer**
 - Filters
 - Amplifier

Answer :(b)

10. A _____ maximizes the received signal-to-noise ratio in the receiver circuitry.

- a) **Filter**
- b) Equalizer
- c) Detector
- d) Reflector

Answer :(a)

11. _____ limits the maximum distance between the optical fiber transmitter and receiver.

- a) **Attenuation**
- b) Transmission
- c) Equipment
- d) Fiber length

Answer :(a)

12. A regenerative repeater is called as _____

- a) Repetitive repeater
- b) **Regenerator**
- c) Attenuator
- d) Gyrator

Answer :(b)

13. In _____ the optical channel bandwidth is divided into non-overlapping frequency bands.

- a) Time division multiplexing
- b) **Frequency division multiplexing**
- c) Code division multiplexing
- d) De-multiplexing

Answer :(b)

14. Which of the following is not an optical fiber component?

- a) Fiber
- b) Connector
- c) **Circulator**
- d) Detector

Answer :(c)

15. For linear as well as in nonlinear mode _____ are most important network elements.
- a) **Optical amplifier**
 - b) Optical detector
 - c) A/D converter
 - d) D/A converters

Answer :(a)

16. The more advantages optical amplifier is _____
- a) Fiber amplifier
 - b) **Semiconductor amplifier**
 - c) Repeaters
 - d) Mode hooping amplifier

Answer :(b)

17. _____ is used preferably for channel selection in a WDM system.
- a) Semiconductor optical amplifier
 - b) **Erbium-doped fiber amplifier**
 - c) Raman fiber amplifier
 - d) Brillouin fiber amplifier

Answer :(b)

18. For used in single-mode fiber _____ are used preferably.
- a) **Semiconductor optical amplifier**
 - b) Erbium-doped fiber amplifier
 - c) Raman fiber amplifier
 - d) Brillouin fiber amplifier

Answer :(a)

19. Mostly _____ are used in nonlinear applications.
- a) Semiconductor optical amplifier
 - b) Erbium-doped fiber amplifier
 - c) Raman fiber amplifier
 - d) **FPAs**

Answer :(c)

20. A _____ is a network connecting several regional or national networks together.
- a) **Long-haul network**
 - b) Domain network
 - c) Short-haul network
 - d) Erbium network

Answer :(a)

21. Optical MAN'S are usually structured in _____ topologies.

- a) **Ring**
- b) Bus
- c) Mesh
- d) Star

Answer :(a)

22. Performance management is closely related to _____

- a) Proactive Fault Management
- b) **Fault management**
- c) Reactive Fault Management
- d) Preventive Fault Management

Answer :(b)

23. In Network Management System, the term that is responsible for controlling access to network based on predefined policy is called _____

- a) Fault Management
- b) Secured Management
- c) Active Management
- d) **Security Management**

Answer :(d)

24. Control of users' access to network resources through charges is the main responsibility of _____

- a) Reactive Fault Management
- b) Reconfigured Fault Management
- c) **Accounting Management**
- d) Security Management

Answer :(c)

25. . A network management system can be divided into _____

- a) Three categories
- b) **Five broad categories**
- c) Seven broad categories
- d) Ten broad categories

Answer :(b)