



# 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-III: WAVELENGTH ROUTING NETWORKS**

1. Individual wavelength channels and wavebands are terminated through \_\_\_\_\_ layers

- a) WXC and PXC
- b) WXC and FXC
- c) BXC and FXC
- d) WXC and BXC**

**Answer: (d)**

2. The routing and wavelength assignment problem addresses the core issue of \_\_\_\_\_

- a) Traffic patterns in a network
- b) Wavelength adjustment
- c) Wavelength continuity constraint**
- d) Design problem

**Answer: (c)**

3. How many techniques of implementation are there for routing wavelength assignment (RWA)?

- a) Two**
- b) Six
- c) Three
- d) Four

**Answer: (a)**

4. \_\_\_\_\_ deals with establishing the light path in frequently varying traffic patterns.

- a) Wavelength routing
- b) Wavelength multiplexing
- c) Static RWA
- d) Dynamic RWA**

**Answer: (d)**

5. Static RWA problem is also known as \_\_\_\_\_

- a) Routing problem
- b) Virtual topology problem**
- c) Static wavelength problem
- d) Light path problem

**Answer: (b)**

6. The \_\_\_\_\_ provides information about the physical path and wavelength assignment for all active light paths.

- a) Network state**
- b) RWA
- c) LAN topology
- d) Secluded communication protocol

**Answer: (a)**

7. \_\_\_\_\_ plays an important role in determining the blocking probability of a network.

- a) CGA algorithm
- b) Semi-pristine environment
- c) RWA algorithm**
- d) Pass key protocol

**Answer: (c)**

8. Wavelength assignment in RWA is independent on the network topology.

- a) True
- b) False**

**Answer: (b)**

9. \_\_\_\_\_ is a multi-functional element of optical network.

- a) Hop
- b) Optical node**
- c) Wavelength
- d) Optical attenuation

**Answer: (b)**

10. The network structure formed due to the interconnectivity patterns is known as a \_\_\_\_\_

- a) Network
- b) Struck
- c) Topology**
- d) D-pattern

**Answer: (c)**

11. The ring and star topologies are combined in a \_\_\_\_\_ configuration.

- a) **Mesh**
- b) Fringe
- c) Data
- d) Singular

**Answer: (a)**

12. Packet switching is also called as \_\_\_\_\_

- a) Frame switching
- b) **Cell switching**
- c) Trans-switching
- d) Buffer switching

**Answer: (b)**

13. The optical networking fundamentals are \_\_\_\_\_ of the transmission techniques.

- a) Dependent
- b) **Independent**
- c) Similar
- d) Dissimilar

**Answer: (b)**

14. 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)**

15. Wavelength Division Multiplexing is same as \_\_\_\_\_

- a) **FDM**
- b) PDM
- c) DWDM
- d) None

**Answer: (a)**

16. WDM is a Analog Multiplexing Technique to combine

- a) Magnetic Signal
- b) Electromagnetic signal
- c) **Optical Signal**

**Answer: (c)**

17. 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)**

18. Architectural styles is composed of which of the following?

- a) A set of component types that perform some function at run-time
- b) A topological layout of these components indicating their run-time inter relationships
- c) **A set of semantic constraints**
- d) All of the mentioned

**Answer: (c)**

19. Which architectural style goal is to achieve Modifiability with Scalability?

- a) Data Flow Architecture
- b) **Call and Return Architecture**
- c) Virtual Machine Architecture
- d) None of the mentioned

**Answer: (b)**

20. Which architectural style goal is to achieve Modifiability with Reuse?

- a) **Data Flow Architecture**
- b) Call and Return Architecture
- c) Virtual Machine Architecture
- d) None of the mentioned

**Answer: (a)**

21. Which architectural style goal is to achieve Portability?

- a) Data Flow Architecture
- b) Call and Return Architecture
- c) **Virtual Machine Architecture**
- d) None of the mentioned

**Answer: (c)**

22. Which architectural style goal is to achieve Integrability?

- a) Data Flow Architecture
- b) Call and Return Architecture
- c) **Data Centered Architectures**
- d) None of the mentioned

**Answer: (c)**

23. Which of the following are types of Call and return architecture?

- a) Main program and subroutine Architecture
- b) Remote Procedure Call system
- c) Object Oriented or abstract data type system
- d) **All of the mentioned**

**Answer: (d)**

24. Electrical devices in optical network are basically used for \_\_\_\_\_

- a) Signal degradation
- b) Node transfer
- c) **Signal control**
- d) Amplification

**Answer: (c)**

26. \_\_\_\_\_ is a packetized multiplexing and switching technique which combines the benefits of circuit and packet switching.

- a) Synchronous mode
- b) **Asynchronous transfer mode**
- c) Circuit packet
- d) Homogeneous mode

**Answer: (b)**

27. 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)**

28. The mapping of IP frames in SDH/SONET is accomplished in \_\_\_\_\_ stages.

- a) Four
- b) Two
- c) **Three**
- d) One

**Answer: (c)**