

**YADAVA COLLEGE(AUTONOMOUS)**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**COMPUTER NETWORKS**

**CLASS:**

**SEMESTER:**

**UNIT I**

1. Which model has seven layers?
  - a) TCP/IP
  - b) **OSI**
  - c) Hybrid
  - d) Internet
2. Which network type covers a city?
  - a) LAN
  - b) WAN
  - c) **MAN**
  - d) PAN
3. Which service type does not require a dedicated connection?
  - a) Connection-oriented
  - b) **Connectionless**
  - c) Virtual circuit
  - d) Circuit-switched
4. Which layer provides interfaces and services to applications?
  - a) Network
  - b) Transport
  - c) **Application**
  - d) Data Link
5. Which model is used by the Internet?
  - a) OSI
  - b) **TCP/IP**
  - c) Hybrid
  - d) Layered
6. Which layer is responsible for routing?
  - a) **Network**
  - b) Transport
  - c) Data Link
  - d) Application
7. Which device connects multiple LANs?
  - a) Switch
  - b) Hub
  - c) **Router**
  - d) Repeater
8. Which layer ensures reliable delivery and error recovery?
  - a) Physical
  - b) **Transport**
  - c) Network
  - d) Application

9. Which service primitive initiates communication?
- a) SEND
  - b) **CONNECT**
  - c) RECEIVE
  - d) DISCONNECT
10. Which model compares OSI and TCP/IP?
- a) Hybrid
  - b) Protocol Stack
  - c) **Reference Model**
  - d) Layered

## UNIT II

11. Which medium uses magnetic tapes for data transfer?
- a) **Magnetic Media**
  - b) Coaxial Cable
  - c) Twisted Pair
  - d) Optical Fiber
12. Which transmission requires line-of-sight?
- a) Radio
  - b) **Microwave**
  - c) Twisted Pair
  - d) Magnetic Media
13. Which ISDN type supports both voice and data services?
- a) Broadband ISDN
  - b) **Narrowband ISDN**
  - c) DSL
  - d) ATM
14. Which spectrum includes infrared waves?
- a) Visible Spectrum
  - b) Radio Spectrum
  - c) **Electromagnetic Spectrum**
  - d) Microwave Spectrum
15. Which ISDN interface connects user devices?
- a) S Interface
  - b) T Interface
  - c) U Interface
  - d) **R Interface**
16. Which transmission uses fiber optics?
- a) Radio Transmission
  - b) Microwave Transmission
  - c) Infrared Transmission
  - d) **Light Wave Transmission**
17. Which ATM concept replaces circuit switching?
- a) Frame Relay
  - b) **Virtual Circuits**
  - c) DSL
  - d) Packet Switching

18. Which ISDN architecture defines system structure?

- a) ISDN Services
- b) ISDN System Architecture**
- c) ISDN Protocols
- d) ISDN Interface

19. Which medium is most prone to interference?

- a) Magnetic Media
- b) Coaxial Cable
- c) Twisted Pair**
- d) Optical Fiber

20. Which ISDN perspective focuses on future expansion?

- a) ISDN Services
- b) ISDN Interface
- c) Perspective on N-ISDN**
- d) ISDN Protocols

### UNIT III

21. Which service is provided to the network layer?

- a) Framing**
- b) Routing
- c) Addressing
- d) Encryption

22. Which technique detects errors?

- a) Error Correcting Codes
- b) Error Detecting Codes**
- c) Flow Control
- d) Framing

23. Which protocol allows one-way communication without restrictions?

- a) Simplex Stop-and-Wait
- b) Unrestricted Simplex Protocol**
- c) Sliding Window Protocol
- d) Go-Back-N Protocol

24. Which protocol waits for acknowledgment before sending the next frame?

- a) Simplex Stop-and-Wait**
- b) Unrestricted Simplex
- c) Selective Repeat
- d) Sliding Window

25. Which protocol handles noisy channels?

- a) Simplex Protocol
- b) Stop-and-Wait
- c) Simplex Protocol for Noisy Channel**
- d) Go-Back-N

26. Which sliding window protocol retransmits all frames after an error?

- a) Selective Repeat
- b) Go-Back-N**
- c) Stop-and-Wait
- d) Simplex

27. Which sliding window protocol retransmits only erroneous frames?

- a) Go-Back-N
- b) Stop-and-Wait
- c) Selective Repeat**
- d) Simplex

28. Which control mechanism prevents buffer overflow?

- a) Error Control
- b) Flow Control**
- c) Framing
- d) Routing

29. Which framing method uses flags and bit stuffing?

- a) Character Count
- b) Byte Stuffing
- c) Bit Stuffing**
- d) Parity

30. Which error control technique adds redundancy bits?

- a) Error Detection
- b) Error Correction**
- c) Flow Control
- d) Framing

#### UNIT IV

31. Which routing algorithm uses flooding?

- a) Shortest Path
- b) Flooding**
- c) Distance Vector
- d) Hierarchical

32. Which routing algorithm uses hop count?

- a) Flooding
- b) Distance Vector**
- c) Broadcast
- d) Link State

33. Which protocol provides connection-oriented service?

- a) UDP
- b) ICMP
- c) IP
- d) TCP**

34. Which protocol provides connectionless service?

- a) UDP**
- b) TCP
- c) FTP
- d) SMTP

35. Which TCP feature ensures reliable delivery?

- a) Congestion Control
- b) Acknowledgment**
- c) Routing
- d) Segmentation

36. Which field is found in TCP segment header?

- a) Source IP
- b) Sequence Number**
- c) MAC Address
- d) TTL

37. Which algorithm avoids congestion in TCP?

- a) Sliding Window
- b) Congestion Control**
- c) Routing
- d) Checksum

38. Which protocol is used for wireless transport?

- a) TCP
- b) UDP
- c) Wireless TCP**
- d) ICMP

39. Which process releases a TCP connection?

- a) Routing
- b) Segmentation
- c) Connection Termination**
- d) Acknowledgment

40. Which protocol is used for best-effort delivery?

- a) TCP
- b) UDP**
- c) SMTP
- d) FTP

## UNIT V

41. Which algorithm uses a single key for encryption and decryption?

- a) Public Key
- b) Secret-Key**
- c) RSA
- d) Diffie-Hellman

42. Which algorithm uses two keys?

- a) DES
- b) AES
- c) Public Key**
- d) Caesar Cipher

43. Which protocol is used for email transfer?

- a) HTTP
- b) SMTP**
- c) FTP
- d) DNS

44. Which component formats email messages?

- a) Mail Server
- b) User Agent**
- c) DNS
- d) Router

45. Which protocol is used to retrieve web pages?

- a) FTP
- b) HTTP**
- c) SMTP
- d) SNMP

46. Which layer handles email privacy?

- a) Network
- b) Transport
- c) Application**
- d) Data Link

47. Which protocol resolves domain names?

- a) HTTP
- b) SMTP
- c) DNS**
- d) TCP

48. Which side of the web handles user requests?

- a) Client Side**
- b) Server Side
- c) Back End
- d) Router

49. Which side of the web processes data and sends responses?

- a) Client Side
- b) Server Side**
- c) Router
- d) Switch

50. Which cryptographic principle ensures data integrity?

- a) Confidentiality
- b) Hashing**
- c) Authentication
- d) Routing