1. What is a network in the context of computing?

A.A group of interconnected computers
B.A single computer system
C.A software application
D.A type of peripheral device

2. What does LAN stand for in networking?

A.Local Access Network
B.Long Area Network
C.Local Area Network
D.Large Access Node

3. Which networking component is responsible for directing data between different networks?

A.Router
B.Switch
C.Hub
D.Modem

4. What does the acronym WAN represent in networking?

A.Wide Access Network
B.Wireless Area Network
C.Wide Area Network
D.Web Application Node

5. In the OSI model, which layer is responsible for end-to-end communication and logical addressing?

A.Network Layer
B.Data Link Layer
C.Transport Layer
D.Physical Layer

6. What is the purpose of the Data Link Layer in the OSI model?

A.Logical addressing
B.Error detection and correction
C.Flow control

D.Physical specifications

7. Which protocol is commonly used for assigning IP addresses dynamically in a network?

A.DNS
B.DHCP
C.ARP
D.ICMP

8. What is the primary purpose of the Transport Layer in the OSI model?

A.Logical addressing
B.End-to-end communication
C.Error detection and correction
D.Reliable data transfer

9. What is a packet-switched network?

A.Data is transferred as a continuous stream
B.Data is divided into packets for transmission
C.Data is transferred in a point-to-point manner
D.Data is transmitted in a circuit-switched manner

10. How many layers does the OSI model have?

A.5
B.6
C.7
D.8

11. What does the acronym DNS stand for in networking?

A.Dynamic Naming Service
B.Domain Name System
C.Data Network Security
D.Digital Network Service

12. Which networking device operates at the Data Link Layer of the OSI model?

A.Router
B.Switch
C.Hub
D.Modem

13. In networking, what is the purpose of a firewall?

A.Control network access
B.Provide wireless connectivity
C.Manage IP address assignments
D.Optimize data transfer

14. What is the function of the Physical Layer in the OSI model?

A.Error detection and correction
B.Logical addressing
C.Bit-level transmission
D.Reliable data transfer

15. Which networking protocol is responsible for the delivery of emails over the Internet?

A.HTTP
B.SMTP
C.FTP
D.DNS

16. What does the acronym LAN represent in networking?

A.Large Area Network
B.Local Access Node
C.Local Area Network
D.Logical Address Node

17. In networking, what does the term "bandwidth" refer to?

A.Data transfer speed
B.Network security level
C.Maximum device capacity
D.Distance between devices

18. Which networking component connects multiple devices within a local area and operates at Layer 2 of the OSI model?

A.Router
B.Switch
C.Hub
D.Modem

19. What is the purpose of the Network Layer in the OSI model?

A.Logical addressing
B.End-to-end communication
C.Error detection and correction
D.Reliable data transfer

20. Which networking device operates at the Physical Layer of the OSI model?

A.Router
B.Switch
C.Hub
D.Modem

21. What is the purpose of the application layer in the OSI model?

A.End-to-end communication
B.Presentation of data
C.Logical addressing
D.Interface with user applications

22. What does LAN stand for in networking?

A.Local Access Network
B.Long Area Network
C.Local Area Network
D.Large Access Node

23. Which statement best describes a LAN?

A.Spans a large geographical area
B.Connects devices within a building or campus
C.Connects devices across cities
D.Serves as a global network

24. What is the primary characteristic of a WAN?

A.Limited geographic scope
B.High data transfer speed
C.Connects devices within a city
D.Spans a large geographic area

25. Which network type is most suitable for a single organization's multiple locations within a city?

A.LAN
B.WAN
C.MAN
D.PAN

26. What does PAN stand for in networking?

A.Public Area Network
B.Personal Area Network
C.Private Access Network
D.Primary Area Network

27. In which scenario would a WAN be commonly used?

A.Connecting devices within a building
B.Connecting devices within a city
C.Connecting devices within a campus
D.Connecting devices across different cities

28. What is the main purpose of a MAN?

A.Connect devices within a building
B.Connect devices within a city
C.Connect devices globally
D.Connect devices within a campus

29. Which network type is suitable for a small group of interconnected computers in close proximity, such as in a home or office?

A.WAN
B.LAN
C.PAN
D.MAN

30. What is the characteristic feature of a PAN?

A.Spans a large geographical area
B.Connects devices within a city
C.Connects devices within a building
D.Connects devices in close proximity to an individual

31. Which network type is commonly used to connect devices within a single building or campus?

A.WAN
B.LAN
C.PAN
D.MAN

32. In networking, what does the term "geographical scope" refer to?

A.Speed of data transfer
B.Distance between devices
C.Number of connected devices
D.Network security level

33. Which network type is typically used for connecting devices in a home environment, such as laptops, smartphones, and smart appliances?

A.LAN
B.WAN
C.PAN
D.MAN

34. What is the primary purpose of a WAN?

A.Connect devices within a building
B.Connect devices within a city
C.Connect devices globally
D.Connect devices within a campus

35. Which network type is characterized by high-speed data transfer and low latency, making it suitable for applications like online gaming or video conferencing?

A.WAN
B.LAN
C.PAN
D.MAN

36. In which network type is data typically transmitted over long distances using technologies like leased lines or satellite connections?

A.WAN
B.LAN
C.PAN
D.MAN

37. Which network type is most likely to be used for connecting devices within a university campus?

A.LAN
B.WAN
C.PAN
D.MAN

38. What is the primary advantage of using a WAN over a LAN?

A.Higher data transfer speed
B.Lower cost of implementation
C.Greater coverage area
D.Simplicity of configuration

39. What is the primary purpose of a PAN?

A.Connect devices within a building
B.Connect devices within a city
C.Connect devices globally
D.Connect devices in close proximity to an individual

40. Which network type is commonly used to connect devices across different cities or countries?

A.WAN
B.LAN
C.PAN
D.MAN

41. What is the typical speed of data transfer in a PAN?

A.Low

B.Moderate
C.High
D.Extremely high

42. In which network topology does each device connect to a central hub or switch?

A.Bus
B.Ring
C.Star
D.Mesh

43. What is the main advantage of a star topology?

A.Easy to implement
B.High data transfer speed
C.Low cost of cabling
D.Improved fault isolation

44. In a bus topology, how are devices connected to the central communication line?

A.Directly
B.Through a central hub
C.In a ring configuration
D.Via a mesh network

45. What happens to the data transmitted in a bus topology if two devices send signals simultaneously?

A.Collision occurs
B.Data is sent sequentially
C.Network becomes more efficient
D.Data is lost

46. Which network topology uses a token-passing protocol to control data transmission?

A.Bus
B.Ring
C.Star
D.Mesh

47. What is the primary disadvantage of a bus topology?

A.Difficult to implement
B.Limited scalability
C.High cost of cabling
D.Susceptible to collisions

48. In a ring topology, what happens if one device in the ring fails?

A.All devices fail

B.Only the failed device is affected

C.Network continues to function

D.Data transmission becomes faster

49. What is the main advantage of a ring topology?

A.Easy to implement

B.High data transfer speed

C.Low cost of cabling

D.Equal access to the network

50. In a star topology, what happens if the central hub or switch fails?

A.All devices fail

B.Only the failed device is affected

C.Network continues to function

D.Data transmission becomes faster