

※ 注意：請用 2B 鉛筆作答於答案卡，並先詳閱答案卡上之「畫記說明」。

Part I. 單選題 (每題2%)

1. Which of the following is not a network QoS?
(A) Bandwidth Requirement (B) Transmission reliability (C) Delay Jitter (D) Delay (E) Redundancy
2. Which of the following is not an application layer protocol?
(A) HTTP (B) SNMP (C) FTP (D) IMAP (E) CDMA
3. Which of the following is not a transport layer protocol?
(A) DVMRP (B) TCP (C) UDP (D) RTP (E) SCTP
4. Which of the following is not a network layer protocol?
(A) OSPF (B) POP3 (C) IPv4 (D) BGP (E) PIM
5. Which of the following is not a link layer protocol?
(A) Bluetooth (B) WiFi (C) Ethernet (D) Aloha (E) ICMP
6. Which of the following is not a protocol designed specific for wireless mobile networks?
(A) Mobile IP (B) WIMAX (C) LTE (D) IEEE 802.3 (E) IEEE 802.11
7. Which of the following features does not describe a packet switched network?
(A) dedicated (B) statistical multiplexing (C) shared (D) store and forward (E) contention
8. Which of the following is not a Web browser?
(A) Mosaic (B) Netscape (C) Firefox (D) Chrome (E) Apache
9. Which of the following functions is not implemented in a Web browser?
(A) Interpreting HTML (B) Translating host names to their IP address (C) Sending HTTP Request messages (D) Storing cookies from Web sites (E) Receiving HTTP Response messages
10. Which of the following functionalities is not common in both a Web browser and an FTP client?
(A) Uploading files/pages (B) Downloading files/pages (C) Issuing DNS requests (D) Initiating TCP connections (E) Displaying HTML files/pages
11. Which of the following steps is not a part of getting an email delivered to the receiving user?
(A) DNS lookup to find the receiving mail server (B) Accessing the mail inbox at the receiver's local mail server (C) Pushing the email from the sender's local mail server to the receiving mail server (D) Pulling the email from the sender's local mail server (E) Waiting in the receiving mail server's inbox
12. Which of the following is the DNS server you register a new host name and IP mapping to?
(A) local DNS server (B) root DNS server (C) authoritative DNS server (D) top-level domain DNS server (E) proxy DNS server
13. Which of the following is not a function of a transport layer protocol?
(A) Reliable transfer (B) congestion control (C) error detection (D) multiplexing/demultiplexing (E) medium access
14. Which of the following features does not describe TCP reliable transfer mechanism?
(A) Accumulative ACK (B) Go-back-N (C) Stop-and-wait (D) Fast Retransmission (E) Retransmission timeout

見背面

15. Suppose the current window size of TCP is $cwnd$. What is the new window size when three duplicate acknowledgements are received?
(A) $cwnd+1$ (B) $2cwnd$ (C) 1 (D) $cwnd+1/cwnd$ (E) $cwnd/2$
16. Suppose the current window size of TCP is $cwnd$. What is the new window size when the TIMEOUT timer expires?
(A) $cwnd+1$ (B) $2cwnd$ (C) 1 (D) $cwnd+1/cwnd$ (E) $cwnd/2$
17. Suppose the current window size of TCP is $cwnd$. What is the new slow start threshold when a packet loss is detected?
(A) $cwnd+1$ (B) $2cwnd$ (C) 1 (D) $cwnd+1/cwnd$ (E) $cwnd/2$
18. What is the largest possible number of hosts on this network, 140.112.42.0/23?
(A) 1024 (B) 512 (C) 256 (D) 128 (E) 64
19. Which of the following is not a valid IP subnet address on the Internet?
(A) 140.112.41.0/24 (B) 140.256.32.128/25 (C) 140.12.44.1/26 (D) 212.240.188.192/28 (E) 128.192.1.0/30
20. Which of the following protocol RIP uses to transmit routing messages?
(A) UDP (B) TCP (C) Native IP (D) HTTP (E) P2P
21. Which of the following protocol OSPF uses to transmit routing messages?
(A) UDP (B) TCP (C) Native IP (D) HTTP (E) P2P
22. Which of the following protocol BGP uses to transmit routing messages?
(A) UDP (B) TCP (C) Native IP (D) HTTP (E) P2P
23. Which of the following is a partition-based MAC protocol?
(A) CSMA (B) FSMA (C) FDMA (D) CAMA (E) Token Ring
24. Which of the following is a random access MAC protocol?
(A) CSMA (B) FSMA (C) FDMA (D) CAMA (E) Token Ring
25. Which of the following is a turn-based MAC protocol?
(A) CSMA (B) FSMA (C) FDMA (D) CAMA (E) Token Ring
26. Which of the following is the mechanism in Ethernet to avoid the initial data from colliding with other data on the LAN?
(A) RTS/CTS messages (B) jam signal (C) exponential backoff (D) carrier sense (E) ACK message timeout
27. Which of the following is the mechanism in Ethernet to avoid the retransmitted data from colliding with other data on the LAN?
(A) RTS/CTS messages (B) jam signal (C) exponential backoff (D) carrier sense (E) ACK message timeout
28. Which of the following is the mechanism in WiFi to inform every host on the wireless LAN the transmission is collided?
(A) RTS/CTS messages (B) jam signal (C) exponential backoff (D) carrier sense (E) ACK message timeout
29. Which of the following is the mechanism in WiFi to avoid data being collided?
(A) RTS/CTS messages (B) jam signal (C) exponential backoff (D) carrier sense (E) ACK message timeout
30. Which of the following is a translation service?
(A) ARP (B) DNS (C) NAT (D) Mobile IP (E) all of the above

Part II. 複選題 (每題4%, 請在答案卡上作答)

31. What network QoS will be of concern transmitting Youtube videos?
(A) Bandwidth Requirement (B) Transmission reliability (C) Delay Jitter (D) Delay (E) Redundancy.
32. What network QoS will be of concern transmitting Skype video calls?
(A) Bandwidth Requirement (B) Transmission reliability (C) Delay Jitter (D) Delay (E) Redundancy
33. Which of the following does the proxy Web server helps improving?
(A) Reducing upload bandwidth requirement at the Web server (B) Reducing download bandwidth requirement at the Web server (C) Reducing upload bandwidth requirement at the Web client (D) Reducing download bandwidth requirement at the Web client (E) Reducing download time
34. Which of the following does peer-to-peer architecture helps to improve in a file transfer?
(A) Reducing upload bandwidth requirement at the original file source (B) Reducing download bandwidth requirement at the original file source (C) Reducing upload bandwidth requirement at the peer (D) Reducing download bandwidth requirement at the peer (E) Reducing download time
35. Which of the following allows detection of bit errors in a data transfer?
(A) CRC (B) Timeout (C) Internet checksum (D) Duplicate ACK (E) Parity check
36. Which of the following allows detection of packet losses in a data transfer?
(A) CRC (B) Timeout (C) Internet checksum (D) Duplicate ACK (E) Parity check
37. Which of the following are problems of link state routing protocols?
(A) count to infinity (B) route oscillation (C) transient routing loops (D) topology information storage (E) path error propagation
38. Which of the following are problems of distance vector routing protocols?
(A) count to infinity (B) route oscillation (C) transient routing loops (D) topology information storage (E) path error propagation
39. Which of the following are the properties of partition-based MAC?
(A) dedicated (B) idle resource (C) contention (D) delay (E) synchronization
40. Which of the following are the properties of turn-based MAC?
(A) dedicated (B) idle resource (C) contention (D) delay (E) synchronization

試題隨卷繳回