

أسئلة الامتحان النهائي للمادة : أساسيات الشبكات  
رمز الجاهزة GN2Q1 التاريخ: 05/02/2018

المسرد: الانصالات/الحاسب  
لمطلبة الفصل: الرابع

كلية التقنية الالكترونية  
College of Electronic Technology - Tripoli



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الفصل الدراسي : خريف 2017

المجموعة : .....

رقم القيد .....

اسم الطالب : .....

## Answer Sheet B

05/02/2018

Circle the correct answer

Time allowed: 2hours

1	A	B	C	D	E	F
2	A	B	C	D	E	F
3	A	B	C	D	E	F
4	A	B	C	D	E	F
5	A	B	C	D	E	F
6	A	B	C	D	E	F
7	A	B	C	D	E	F
8	A	B	C	D	E	F
9	A	B	C	D	E	F
10	A	B	C	D	E	F
11	A	B	C	D	E	F
12	A	B	C	D	E	F
13	A	B	C	D	E	F
14	A	B	C	D	E	F
15	A	B	C	D	E	F
16	A	B	C	D	E	F
17	A	B	C	D	E	F
18	A	B	C	D	E	F
19	A	B	C	D	E	F
20	A	B	C	D	E	F
21	A	B	C	D	E	F
22	A	B	C	D	E	F
23	A	B	C	D	E	F
24	A	B	C	D	E	F
25	A	B	C	D	E	F

26	A	B	C	D	E	F
27	A	B	C	D	E	F
28	A	B	C	D	E	F
29	A	B	C	D	E	F
30	A	B	C	D	E	F
31	A	B	C	D	E	F
32	A	B	C	D	E	F
33	A	B	C	D	E	F
34	A	B	C	D	E	F
35	A	B	C	D	E	F
36	A	B	C	D	E	F
37	A	B	C	D	E	F
38	A	B	C	D	E	F
39	A	B	C	D	E	F
40	A	B	C	D	E	F

Score



Answer All Questions

Time allowed: TWO hours

All questions carry equal weight

1. What are the two sizes (minimum and maximum) of an Ethernet frame? (Choose two.)

- A. 56 bytes
- B. 1024 bytes
- C. 64 bytes
- D. 128 bytes
- E. 1518 bytes

2. Which of the following is the correct command sequence to configure an IP address on an interface?

- A. Router>enable  
 Router(config)#interface serial0/0  
 Router(config-if)#ip address 10.0.0.2  
 255.255.255.252
- B. Router>enable  
 Router#configure terminal  
 Router(config)>enable  
 Router(config)#interface serial0/0  
 Router(config-if)#ip address 10.0.0.2  
 255.255.255.252
- C. Router>enable  
 Router#configure terminal  
 Router(config)#interface serial0/0  
 Router(config-if)#ip address 10.0.0.2  
 255.255.255.252
- D. Router>enable  
 Router#configure terminal  
 Router(config-if)#ip address 10.0.0.2  
 255.255.255.252

3. Which switching mode sacrifices speed for error-free switching?

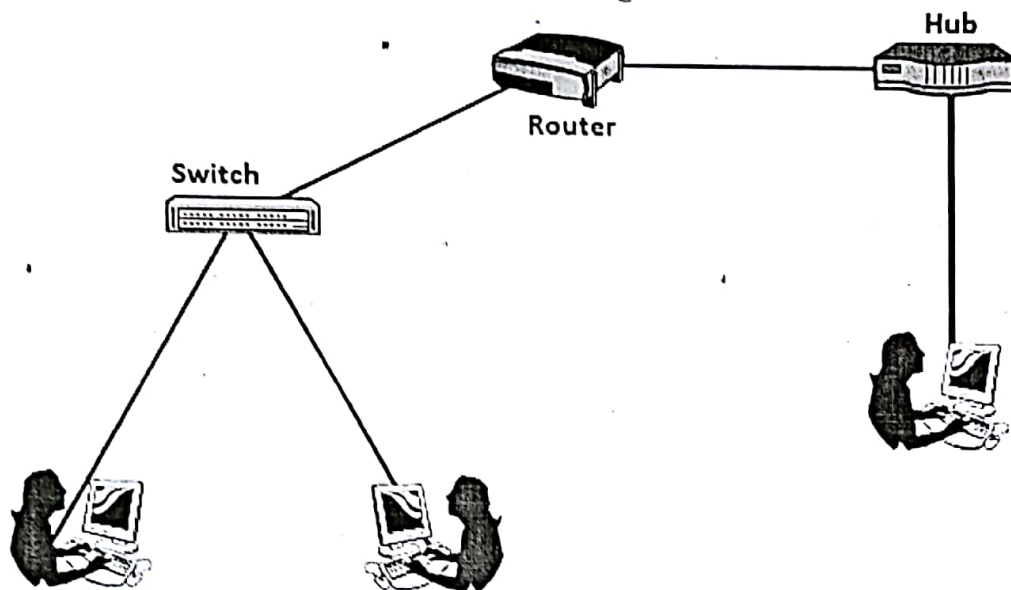
- A. Segment-Free
- B. Cut Throat
- C. Fragment Free
- D. Cut Through
- E. Store and Forward

4. Which of the following protocols are examples of TCP/IP transport layer protocols?

(Choose two answers.)

- A. UDP
- B. Ethernet
- C. HTTP
- D. IP
- E. SMTP
- F. TCP

5. How many broadcast domains are there in the figure shown?



- A. One
- B. Two
- C. Three
- D. Four
- E. Five

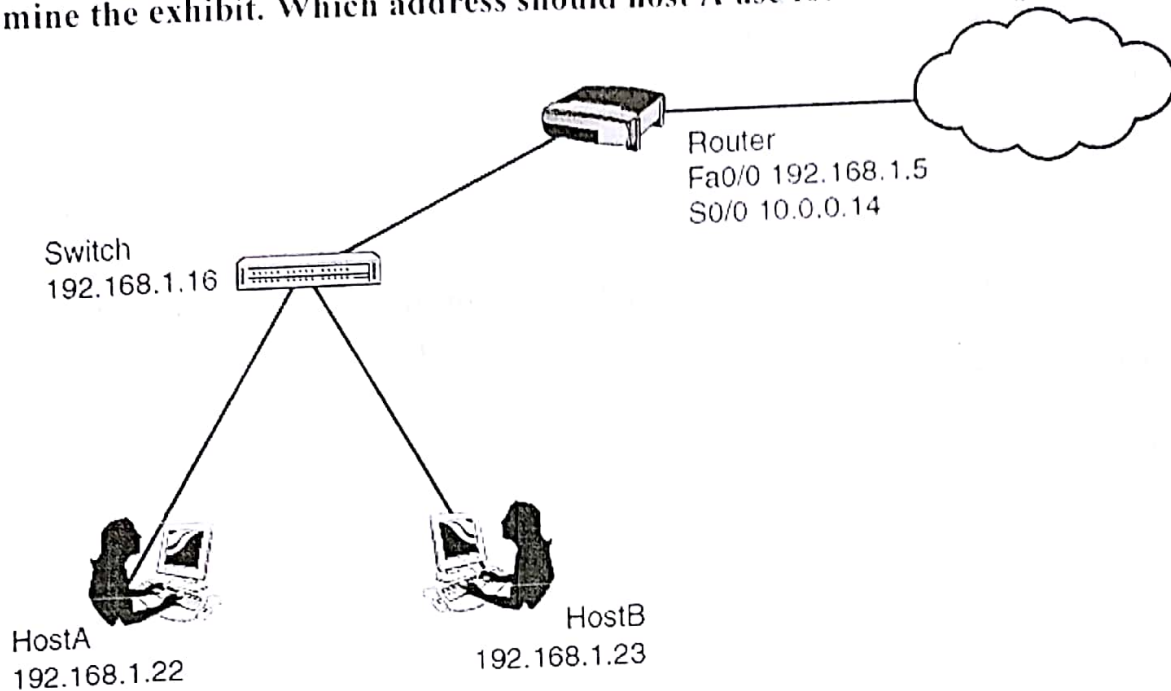
6. Which of the following is true about the CSMA/CD algorithm?

- A. The algorithm never allows collisions to occur.
- B. The algorithm works with only two devices on the same Ethernet.
- C. None of the other answers is correct.
- D. Collisions can happen, but the algorithm defines how the computers should notice a collision and how to recover.

7. You suspect that the routing configuration on one of your routers is incorrect because you are unable to reach a remote network. What command can you use to detect which router has a problem routing to a remote network?

- A. traceroute
- B. telnet
- C. ping
- D. show ip route

8. Examine the exhibit. Which address should host A use for its default gateway?



- A. 10.0.0.14
- B. 192.168.1.16
- C. 192.168.1.23
- D. 192.168.1.5
- E. 192.168.1.22

9. Ahmed types in an excellent initial configuration on his new router, but when he tries to ping the interfaces, they don't answer. What could be wrong?

- A. Ahmed changed the configuration register to suppress pings.
- B. Ahmed needs a new router; this one is clearly defective.
- C. The router does not support the IP protocol by default.
- D. Ahmed neglected to issue the no shut command at each interface.

10. What are two characteristics of 802.11 wireless networks? (Choose two.)

- A. They use CSMA/CD technology.
- B. They are collision-free networks.
- C. They use CSMA/CA technology.
- D. Stations can transmit at any time.
- E. Collisions can exist in the networks.

11. Which of the following is true about Ethernet crossover cables for Fast Ethernet?

- A. Pins 1 and 2 are reversed on the other end of the cable.
- B. Pins 1 and 2 on one end of the cable connect to pins 3 and 6 on the other end of the cable.
- C. Pins 1 and 2 on one end of the cable connect to pins 3 and 4 on the other end of the cable.
- D. The cable can be up to 1000 meters long to cross over between buildings.
- E. None of the other answers is correct.



**12. What command copies the configuration from RAM into NVRAM?**

- A. copy running-config tftp
- B. copy tftp running-config
- C. copy start-up-config running-config
- D. copy startup-config running-config
- E. copy running-config startup-config
- F. copy running-config start-up-config

**13. What do you call data that includes the Layer 4 protocol header, and data given to Layer 4 by the upper layers, not including any headers and trailers from Layers 1 to 3? (Choose two answers.)**

- A. L3 PDU
- B. Segment
- C. Chunk
- D. Packet
- E. Frame
- F. L4 PDU

**14. Which two statements describe features or functions of the logical link control sublayer in Ethernet standards? (Choose two.)**

- A. Logical link control is implemented in software.
- B. Logical link control is specified in the IEEE 802.3 standard.
- C. The LLC sublayer adds a header and a trailer to the data.
- D. The LLC sublayer is responsible for the placement and retrieval of frames on and off the media.
- E. The data link layer uses LLC to communicate with the upper layers of the protocol suite.

**15. Which of the following commands will display IP to MAC address mappings on a Windows PC?**

- A. ipconfig /all
- B. tracert
- C. arp -a
- D. ping 127.0.0.1

**16. Which of the following terms are not valid terms for the names of the seven OSI layers? (Choose two answers.)**

- A. Application
- B. Data link
- C. Transmission
- D. Presentation
- E. Internet
- F. Session

17. A switch user is currently in console line configuration mode. Which of the following would place the user in privileged mode? (Choose two answers.)

- A. Using the end command once
- B. Pressing the Ctrl-Z key sequence once
- C. Using the quit command
- D. Using the exit command once

18. Why does the formula for the number of hosts per subnet ( $2^H - 2$ ) require the subtraction of two hosts?

- A. To reserve two addresses for redundant default gateways (routers)
- B. To reserve the two addresses required for DHCP operation
- C. To reserve addresses for the subnet ID and default gateway (router)
- D. To reserve addresses for the subnet broadcast address and subnet ID

19. Assuming your configuration does not have any boot system commands, where will your router look for an IOS image?

- A. ROM
- B. RAM
- C. Flash
- D. NVRAM

20. What type of cable would you use between a router and a switch?

- A. Rollover cable
- B. Straight-through cable
- C. Null modem cable
- D. Crossover cable

21. In which of the following modes of the CLI could you issue the command reload to reboot the switch?

- A. privileged mode
- B. User mode
- C. Global configuration mode
- D. Interface configuration mode

22. Which of the following is a collision domain?

- A. All devices connected to an Ethernet switch
- B. Two PCs, with one cabled to a router Ethernet port with a crossover cable and the other PC cabled to another router Ethernet port with a crossover cable
- C. None of the other answers is correct.
- D. All devices connected to an Ethernet hub

23. Which of the following are functions of OSI Layer 3 protocols?

- A. Logical addressing
- B. Physical addressing
- C. Path selection
- D. Arbitration
- E. Error recovery

24. Which of the following are valid Class C IP addresses that can be assigned to hosts?

- A. 1.1.1.1
- B. 128.128.128.128
- C. 224.1.1.1
- D. 200.1.1.1
- E. 223.223.223.255

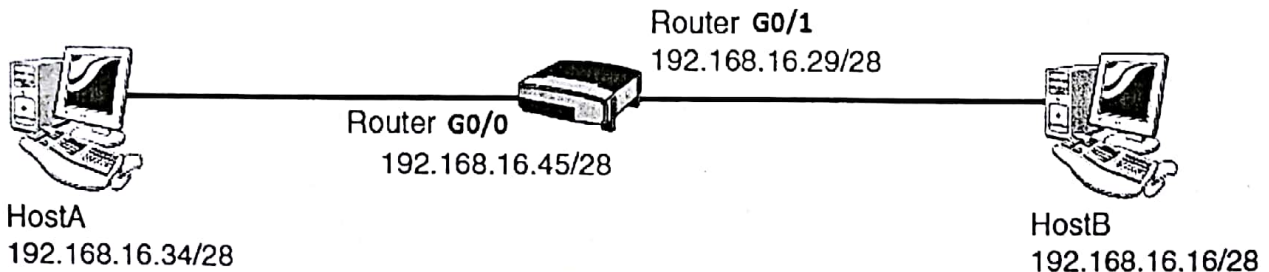
25. Which of the following are public IP networks? (Select three answers.)

- A. 9.0.0.0
- B. 192.1.168.0
- C. 1.0.0.0
- D. 172.30.0.0
- E. 192.168.255.0

26. Each Class B network contains how many IP addresses that can be assigned to hosts?

- A. 16,777,214
- B. 16,777,216
- C. 65,536
- D. 65,534
- E. 65,532
- F. 32,768

27. Examine the figure that follows. HostA is unable to communicate with HostB. What is wrong?



- A. HostA has an invalid IP address.
- B. HostB has an invalid IP address.
- C. The router's G0/0 interface has an invalid IP address.
- D. The router's G0/1 interface has an invalid IP address.

28. Which protocol will allow you to test connectivity through Layer 7?

- A. ARP
- B. RIP
- C. Telnet
- D. ICMP

29. Which of the following are commonly used WAN protocols?( Choose 3).

- A. Frame Relay
- B. HDLC .
- C. AAA
- D. PPP
- E. WEP
- F. WING

30. Which answer correctly lists the OSI PDUs in order?

- A. Data, Packet, Frame, Segment, Bit
- B. Bit, Data, Packet, Segment, Frame
- C. Data, Segment, Packet, Frame, Bit
- D. Bit, Frame, Segment, Packet, Data

31. Which of the following protocols allows a client PC to request assignment of an IP address as well as learn its default gateway?

- A. ARP
- B. DNS
- C. DHCP
- D. RARP

32. What is one advantage of using fiber optic cabling rather than copper cabling?

- A. It is usually cheaper than copper cabling.
- B. It is able to be installed around sharp bends.
- C. It is easier to terminate and install than copper cabling.
- D. It is able to carry signals much farther than copper cabling.

33. Given the mask 255.255.254.0, how many hosts per subnet does this create?

- A. 254
- B. 256
- C. 512
- D. 510
- E. 2



34. Which of the following commands would correctly configure Telnet access for three vty lines and encrypt both the enable and Telnet passwords? Select all that apply.

- A. enable password que  
service password-encryption  
line vty 0 2  
login  
password que
- B. enable secret que  
service password-encryption  
line vty 0 3  
login  
password que
- C. enable secret que  
service password-encryption  
line vty 0 4  
login  
password que
- D. enable secret que  
service password-encryption  
line vty 0 2  
login  
password que

35. The process of a web server adding a TCP header to the contents of a web page, followed by adding an IP header and then adding a data link header and trailer is an example of what?

- A. Same-layer interaction
- B. Data encapsulation
- C. OSI model
- D. All of these answers are correct.

36. You have been asked to create a subnet that supports 16 hosts. What subnet mask should you use?

- A. 255.255.255.252
- B. 255.255.255.248
- C. 255.255.255.240
- D. 255.255.255.224

37. Which of the following is a valid host IP address? Select all that apply.

- A. 172.16.17.0/20
- B. 192.168.4.64/28
- C. 10.0.145.144/30
- D. 172.30.15.18/29

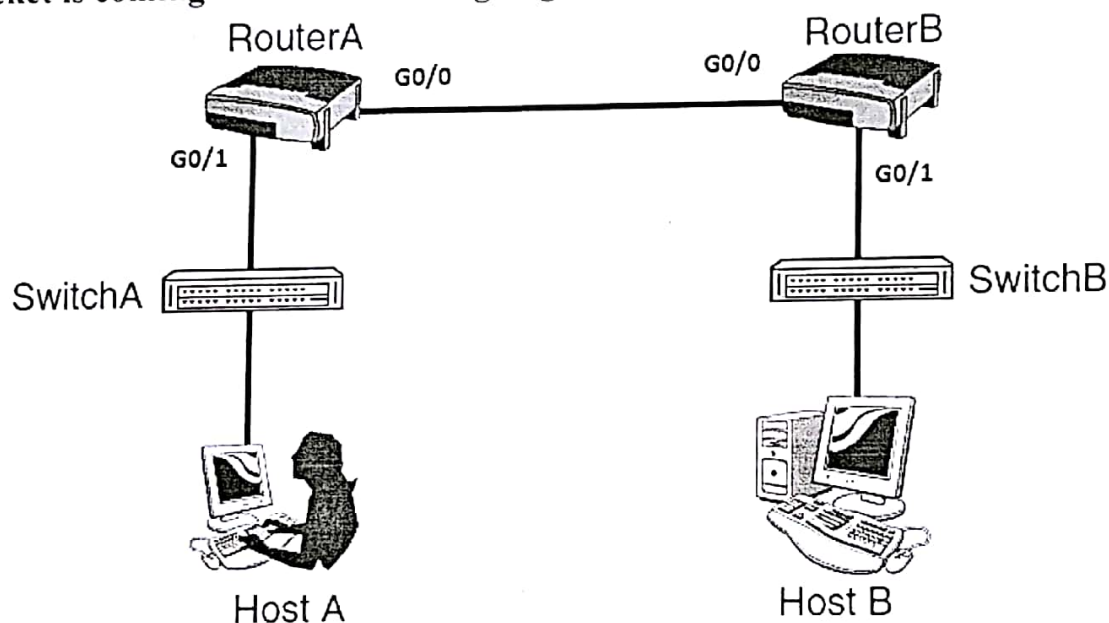
38. An ICMP ping is composed of which two primary messages? (Select two).

- A. echo reply
- B. traceroute
- C. chargen
- D. echo request
- E. Ping reply

39. What happens when a switch receives a frame with the destination MAC address of FF-FF-FF-FF-FF-FF?

- A. The switch drops the frame and sends a "Destination Unreachable" message back to the source.
- B. The switch filters the frame because the address is not valid.
- C. The switch floods the frame out all ports except the one it came in on.
- D. The switch forwards the frame out the port that connects to the host with that MAC address.

40. Examine the figure that follows. A user sitting at HostA is sending a packet of data to HostB. When the packet returns, what will be the destination MAC address when the packet is coming from HostB and going to RouterB?



- A. RouterA's G0/1 MAC address
- B. HostA's MAC address
- C. SwitchB's MAC address
- D. RouterB's G0/1 MAC address