



قائمة الاسئلة

شبكات اتصالات 2- كلية الهندسة - قسم الكهرباء- المستوى الرابع.... - اتصالات- ثلاث ساعات - درجة هذا الاختبار (60)

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1)

The value of the header length (HLEN) field in an IPv4 packet be	
a.	< 5
b.	> 15
c.	$5 \leq \text{HLEN} \leq 15$
d.	None of the above

- 1) - a
2) - b
3) + c
4) - d

2)

A host is sending 500 datagrams to another host. If the identification number of the first datagram is 1024, what is the identification number of the last?	
a.	1123
b.	1523
c.	1524
d.	2525

- 1) - a
2) + b
3) - c
4) - d

3)

The three auxiliary protocols at the network layer of the TCP/IP suite that are designed to help the IPv4 protocol are	
a.	ICMP, IMMP, and ARP
b.	ICMP, IGMP, and DNS
c.	SNMP, IGMP, and ARP
d.	ICMP, IGMP, and ARP

- 1) - a
2) - b
3) - c
4) + d

4)

An IP fragment has arrived with an offset value of 512. How many bytes of data were originally sent by the source before the data in this fragment?	
a.	4095
b.	4096
c.	2045
d.	512

- 1) + a
2) - b
3) - c
4) - d

5)

In an IPv4 datagram, the value of the header-length (HLEN) field is $(6)_{16}$. How many bytes of options have been added to the packet?	
a.	8 bytes
b.	6 bytes
c.	4 bytes
d.	2 bytes





- 1) - a
- 2) - b
- 3) + c
- 4) - d

6) Which of the following can be the value of the TTL in a datagram?

a.	0
b.	260
c.	300
d.	30

- 1) - a
- 2) - b
- 3) - c
- 4) + d

7) Which field(s) in the datagram is (are) responsible for gluing together all fragments belonging to an original datagram?

a.	Source IP address and the identification
b.	HLEN, source IP address, and the identification
c.	HLEN and the identification
d.	Only, the identification field

- 1) + a
- 2) - b
- 3) - c
- 4) - d

8) Which protocol is the carrier of the agent advertisement and solicitation messages?

a.	The IGMP protocol
b.	The ICMP protocol
c.	The SMTP protocol
d.	The SNMP protocol

- 1) - a
- 2) + b
- 3) - c
- 4) - d

9) An IP datagram has arrived with the following partial information in the header (in hexadecimal): **45000054 00030000 2006...** Which statement is not correct?

a.	The header length is 20 bytes
b.	There are no options bytes
c.	The total length of the packet is 84 bytes
d.	The packet is fragmented

- 1) - a
- 2) - b
- 3) - c
- 4) + d

10)





An organization is assigned the block **2000:1456:2474/48**. What is the CIDR notation for the blocks in the first and second subnets in this organization?

a.	2000:1456:2474:0000/48 and 2000:1456:2474:0001/48
b.	2000:1456:2474:0000/64 and 2000:1456:2474:0001/64
c.	2000:1456:2474:0001/32 and 2000:1456:2474:0002/32
d.	2000:1456:2474:0000/48 and 2000:1456:2474:0001/48

- 1) - a
2) + b
3) - c
4) - d

11)

Find the interface identifier if the physical address in the EUI is **(F5-A9-23-EF-07-14-7A-D2)₁₆**

a.	F7A9-23EF-0714-7AD2
b.	F5A9-23EF:0714:7AD2
c.	F7A9-23EF:0714:7AD2
d.	F7-A9-23-EF-07-14-7A-D2

- 1) - a
2) - b
3) + c
4) - d

12)

Decompress the address **B:A:CC::1234:A** and show its complete unabbreviated IPv6 address.

a.	000B:000A:00CC:0000:0000:0000:1234:000A
b.	B000:A000:CC00:0000:0000:0000:1234:A000
c.	000B:000A:00CC::1234:000A
d.	B:A:CC:0000:0000:0000:1234:000A

- 1) + a
2) - b
3) - c
4) - d

13)

An organization is assigned the block **2000:1456:2474/48**. What is the IPv6 address of an interface in the third subnet if the IEEE physical address of the computer is **(F5-A9-23-14-7A-D2)₁₆**?

a.	2000:1456:2474:0001:F7A9:23FF:FE14:7AD2/128
b.	2000:1456:2474:0003:F7A9:23FF:FE14:7AD2/128
c.	2000:1456:2474:0001:F5A9:23FF:FE14:7AD2/128
d.	2000:1456:2474:0002:F5A9:23FF:FE14:7AD2/128

- 1) - a
2) + b
3) - c
4) - d

14)

IP is a _____ protocol.

a.	Connection-oriented unreliable
b.	Connection-oriented reliable
c.	Connectionless unreliable
d.	Connectionless reliable

- 1) - a





- 2) - b
- 3) c
- 4) - d

15)

What is needed to determine the number of the last byte of a fragment?	
a.	Offset number
b.	Total length
c.	Both offset number and the total length
d.	None of the choices are correct

- 1) - a
- 2) - b
- 3) c
- 4) - d

16)

Routing inside an autonomous system is referred to as _____ routing.	
a.	Intradomain
b.	Interdomain
c.	Out-of-domain
d.	None of the choices are correct

- 1) a
- 2) - b
- 3) - c
- 4) - d

17)

Routing between autonomous systems is referred to as _____ routing.	
a.	Interdomain routing
b.	Intradomain routing
c.	Out-of-domain
d.	None of the choices are correct

- 1) a
- 2) - b
- 3) - c
- 4) - d

18)

In _____, each node maintains a vector (table) of minimum distances to every node.	
a.	Path vector
b.	Distance vector
c.	Link state
d.	None of the choices are correct

- 1) - a
- 2) b
- 3) - c
- 4) - d

19)





The Routing Information Protocol (RIP) is an intradomain routing based on _____ routing.	
a.	Link state
b.	Path vector
c.	Distance vector
d.	None of the choices are correct

- 1) - a
- 2) - b
- 3) + c
- 4) - d

20)

The metric used by _____ is the hop count.	
a.	OSPF
b.	RIP
c.	BGP
d.	None of the choices are correct

- 1) - a
- 2) + b
- 3) - c
- 4) - d

21)

RIP uses the services of _____.	
a.	TCP
b.	IP
c.	UDP
d.	None of the choices are correct

- 1) - a
- 2) - b
- 3) + c
- 4) - d

22)

One of the main duties of the transport layer is to provide _____ communication.	
a.	Node-to-node
b.	Process-to-process
c.	Host-to-host
d.	None of the choices are correct

- 1) - a
- 2) + b
- 3) - c
- 4) - d

23)





A client program normally uses _____ port number. A server program normally uses _____ port number.	
a.	A well-known; an ephemeral
b.	A private; a well-known
c.	An ephemeral; a well-known
d.	None of the choices are correct

- 1) - a
- 2) - b
- 3) c
- 4) - d

24) A socket address is a combination of _____.

a.	A MAC address and a logical address
b.	A MAC address and a port number
c.	A user-specific address and a logical address
d.	None of the choices are correct

- 1) - a
- 2) - b
- 3) - c
- 4) d

25) _____ means accepting items from more than one source. _____ means delivering items to more than one source.

a.	Demultiplexing; Multiplexing
b.	Multiplexing; Demultiplexing
c.	Encapsulation; Decapsulation
d.	Pulling; Pushing

- 1) - a
- 2) b
- 3) - c
- 4) - d

26) _____ means the producer delivers the items when they are produced. _____ means the consumer takes the items when it is ready to do so.

a.	Pushing; Pulling
b.	Pulling; Pushing
c.	Forwarding; Accepting
d.	None of the choices are correct

- 1) a
- 2) - b
- 3) - c
- 4) - d

27) UDP is a _____ transport protocol.

a.	Connectionless, reliable
b.	Connection-oriented, unreliable
c.	Connectionless, unreliable
d.	None of the choices are correct



- 1) - a
- 2) - b
- 3) + c
- 4) - d

28) At the transport layer, to define the processes, we need two identifiers called _____.

a.	Logical addresses
b.	Physical addresses
c.	Port addresses
d.	None of the choices are correct

- 1) - a
- 2) - b
- 3) + c
- 4) - d

29) UDP and TCP are two protocols at the _____ layer.

a.	Data-link
b.	Network
c.	Transport
d.	Application

- 1) - a
- 2) - b
- 3) + c
- 4) - d

30) Communication at the transport layer is _____.

a.	Node-to-node
b.	Node-to-host
c.	Host-to-node
d.	End-to-end

- 1) - a
- 2) - b
- 3) - c
- 4) + d

