

# 中間試験問題 (Явцын шалгалт) - Network Basics

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Student number & Your name \*

⌵ Dropdown

Teacher ▼

1. How many unique values are possible using a single binary digit? \*

1 point

Нэг хоёртын цифрийг ашиглан хичнээн өвөрмөц утгыг авах боломжтой вэ?

☒ 2

☐ 9

☐ 8

☐ 16

☐ 1

☐ 4

2. What data representation is used when a computer or network device is processing data? \* 1 point

Компьютер эсвэл сүлжээний төхөөрөмж өгөгдөл боловсруулж байх үед ямар өгөгдлийн дүрслэлийг ашигладаг вэ?

- ☐ readable
- ☒ binary
- ☐ inferred
- ☐ text

3. What is the order of bandwidth measurement from smallest to largest? \* 1 point

Дамжуулах зурвасын өргөнийг жижигээс том хүртэл хэмжих дараалал юу вэ?

- ☐ Gbps, Tbps, Mbps, Kbps
- ☐ Tbps, Mbps, Kbps, Gbps
- ☒ Kbps, Mbps, Gbps, Tbps
- ☐ Kbps, Tbps, Mbps, Gbps

4. What are two types of wired high-speed Internet connections? (Choose two.)

\* 1 point

Хоёр төрлийн утастай өндөр хурдны интернет холболт гэж юу вэ? (Хоёрыг сонгоно уу.)

- ☐ cellular
- ☒ DSL
- ☒ cable
- ☐ satellite
- ☐ dial-up

5. Which two methods are used to directly connect mobile devices such as tablets and smartphones to a data network? (Choose two.) \* 1 point

Таблет, ухаалаг гар утас зэрэг хөдөлгөөнт төхөөрөмжийг өгөгдлийн сүлжээнд шууд холбоход ямар хоёр аргыг ашигладаг вэ? (Хоёрыг сонгоно уу.)

- ☐ Bluetooth
- ☐ wired Ethernet
- ☒ Wi-Fi
- ☒ cellular communications
- ☐ WiMax

6. A user is looking for a wireless headphone for listening to songs stored on a smartphone. What wireless technology would the headphone use?

\* 1 point

Хэрэглэгч ухаалаг утсанд хадгалагдсан дууг сонсох утасгүй чихэвч хайж байна. Чихэвч ямар утасгүй технологи ашиглах вэ?

- ☒ Bluetooth
- ☐ 3G/4G
- ☐ Wi-Fi
- ☐ infrared

7. Which wireless RF band do IEEE 802.11b/g devices use?

\* 1 point

IEEE 802.11b/g төхөөрөмжүүд ямар утасгүй RF-ийн зурвасыг ашигладаг вэ?

- ☐ 900 MHz
- ☐ 5 GHz
- ☐ 60 GHz
- ☒ 2.4 GHz

8. Which technology is used to uniquely identify a WLAN network?

\* 1 point

WLAN сүлжээг өвөрмөц байдлаар тодорхойлоход ямар технологи ашигладаг вэ?

- ☒ SSID
- ☐ MAC address table
- ☐ WEP
- ☐ WPA

9. A user is setting up a home wireless network. Which type of device must the user have in order to establish the wireless network and provide access to the internet for multiple home devices?

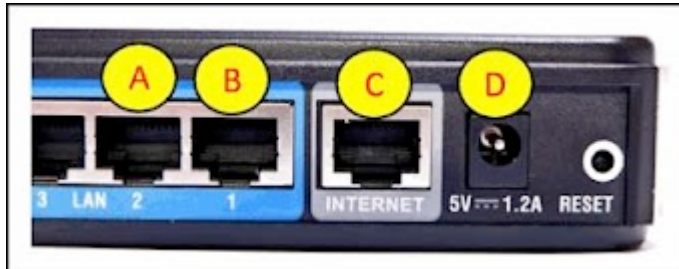
\* 1 point

Хэрэглэгч гэрийн утасгүй сүлжээг тохируулж байна. Хэрэглэгч утасгүй сүлжээ байгуулж, гэрийн олон төхөөрөмжид интернетэд холбогдохын тулд ямар төрлийн төхөөрөмжтэй байх ёстой вэ?

- ☐ hub
- ☐ patch panel
- ☒ wireless router
- ☐ switch

10. Refer to the exhibit. Which router port connects to the modem provided by the service provider? \* 1 point

Зураг руу хандана уу. Үйлчилгээ үзүүлэгчийн өгсөн модемд ямар чиглүүлэгчийн порт холбогддог вэ?



- ☐ A
- ☐ D
- ☐ B
- ☒ C

11. What two radio frequency bands are used in home Wireless LANs? (Choose two.) \* 1 point

Гэрийн утасгүй LAN сүлжээнд ямар хоёр радио давтамжийн зурвасыг ашигладаг вэ? (Хоёрыг сонгоно уу.)

- ☐ 5 MHz
- ☐ 900 GHz
- ☒ 2.4 GHz
- ☐ 9 MHz
- ☒ 5 GHz

12. Which feature is characteristic of MAC filtering in wireless networks? \*

1 point

Утасгүй сүлжээнд MAC шүүлтүүрийн аль онцлог шинж чанар вэ?

- ☐ It is configured on the computer rather than on the router.
- ☒ It restricts computer access to a wireless network.
- ☐ It encrypts data that is transmitted on a wireless network.
- ☐ It allows only authorized users to detect the network.

13. Which three acronyms/initialisms represent standards organizations? (Choose three.)

\* 1 point

Аль гурван товчлол/эх үг нь стандартын байгууллагыг төлөөлдөг вэ? (Гурвыг сонгоно уу.)

- ☒ IETF
- ☐ OSI
- ☐ TCP/IP
- ☒ IEEE
- ☐ MAC
- ☒ IANA

14. Which three layers of the OSI model map to the application layer of the TCP/IP model? (Choose three.)

\* 1 point

OSI загварын аль гурван давхаргыг TCP/IP загварын хэрэглээний давхаргад буулгах вэ? (Гурвыг сонгоно уу.)

- ☒ session
- ☐ transport
- ☐ network
- ☒ application
- ☒ presentation
- ☐ data link

15. Match the TCP/IP model layer to the function.

\*

4 points

TCP/IP загварын давхаргыг функцтэй тааруулна уу.

	represents data to the user, data encoding, and dialog control.	controls hardware devices and media that make up the network.	supports communication between diverse devices across networks.	determines the best path to forward data through the network.
network access	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
transport	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
application	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



16. Which statement is true about the TCP/IP and OSI models? \*

1 point

TCP/IP болон OSI загваруудын аль нь үнэн бэ?

- ☐ The TCP/IP network access layer has similar functions to the OSI network layer.
- ☐ The OSI Layer 7 and the TCP/IP application layer provide identical functions.
- ☒ The TCP/IP transport layer and OSI Layer 4 provide similar services and functions.
- ☐ The first three OSI layers describe general services that are also provided by the TCP/IP internet layer.

17. A network technician is researching the use of fiber optic cabling in a new technology center. Which two issues should be considered before implementing fiber optic media? (Choose two.)

\* 1 point

Сүлжээний техникч шинэ технологийн төвд шилэн кабель ашиглах судалгаа хийж байна. Шилэн кабелийг нэвтрүүлэхийн өмнө аль хоёр асуудлыг анхаарч үзэх хэрэгтэй вэ? (Хоёрыг сонгоно уу.)

- ☐ Fiber optic cable is able to withstand rough handling.
- ☒ Fiber optic provides higher data capacity but is more expensive than copper cabling.
- ☐ Fiber optic cabling is susceptible to loss of signal due to RFI.
- ☒ Fiber optic cabling requires different termination and splicing expertise from what copper cabling requires.
- ☐ Fiber optic cabling requires specific grounding to be immune to EMI.

18. Which type of network cable is commonly used in backbone networks and telephone companies?

\* 1 point

Ямар төрлийн сүлжээний кабелийг үндсэн сүлжээ, телефон утасны компаниудад ихэвчлэн ашигладаг вэ?

- ☐ twisted-pair cable
- ☐ coaxial cable
- ☒ fiber-optic cable
- ☐ shielded twisted-pair cable

19. What two characteristics describe an Ethernet cable? (Choose two.)

\* 1 point

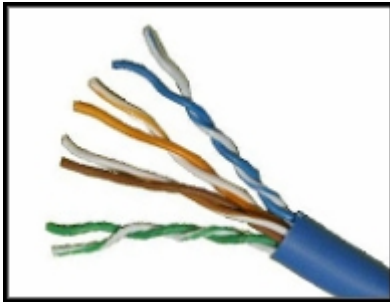
Ямар хоёр шинж чанар нь Ethernet кабелийг тодорхойлдог вэ? (Хоёрыг сонгоно уу.)

- ☒ 4 pairs of twisted cables
- ☐ single copper core surrounded by a layer of insulation
- ☒ color coded pairs of cables
- ☐ plastic core surrounded by multiple layers for isolation and protection
- ☐ glass core surrounded by multiple layers for isolation and protection

20. Refer to the graphic. What type of cabling is shown? \*

1 point

Зургийг үзнэ үү. Ямар төрлийн кабелийг харуулсан бэ?



- ☐ plastic fiber-optic
- ☒ twisted-pair
- ☐ glass fiber-optic
- ☐ coaxial

21. Which term refers to the process of placing one message format inside another message format? \*

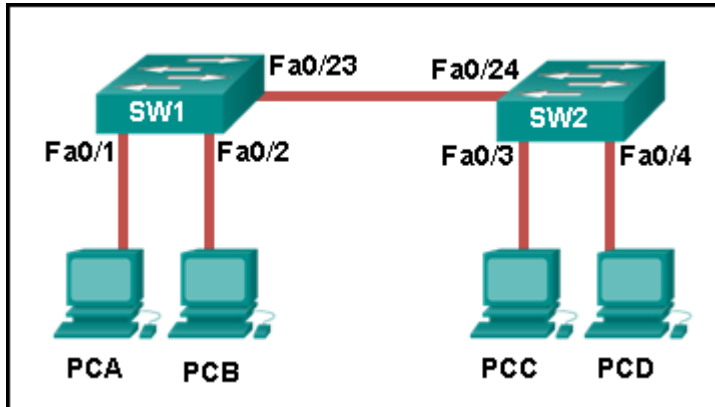
1 point

Аль нэр томъёо нь нэг мессежийн форматыг өөр мессежийн формат дотор байрлуулах үйл явцыг хэлдэг вэ?

- ☐ encoding
- ☐ segmenting
- ☐ manipulation
- ☒ encapsulation

22. Refer to the exhibit. How is a frame sent from PCA forwarded to PCC if the MAC address table on switch SW1 is empty? \* 2 points

Зургийг үзнэ үү. SW1 шилжүүлэгч дээрх MAC хаягийн хүснэгт хоосон байвал PCA-аас фреймийг хэрхэн PCC рүү дамжуулах вэ?



- ☐ SW1 forwards the frame directly to SW2. SW2 floods the frame to all ports connected to SW2, excluding the port through which the frame entered the switch.
- ☐ SW1 floods the frame on all ports on the switch, excluding the interconnected port to switch SW2 and the port through which the frame entered the switch.
- ☐ SW1 drops the frame because it does not know the destination MAC address.
- ☒ SW1 floods the frame on all ports on SW1, excluding the port through which the frame entered the switch.

23. Which information does a switch use to populate the MAC address table?

\* 1 point

Шилжүүлэгч нь MAC хаягийн хүснэгтийг бөглөхөд ямар мэдээллийг ашигладаг вэ?

- ☐ the source and destination MAC addresses and the incoming port
- ☐ the destination MAC address and the outgoing port
- ☐ the source and destination MAC addresses and the outgoing port
- ☐ the source MAC address and the outgoing port
- ☐ the destination MAC address and the incoming port
- ☒ the source MAC address and the incoming port

24. Which type of address does a switch use to build the MAC address table?

\* 1 point

Свич нь MAC хаягийн хүснэгтийг бүтээхэд ямар төрлийн хаяг ашигладаг вэ?

- ☐ destination IP address
- ☒ source MAC address
- ☐ destination MAC address
- ☐ source IP address

25. Refer to the exhibit. A PC with the MAC address of 0800.069d.3841 attached to port Fa0/8 is sending data to a device that has the MAC address of 6400.6a5a.6821. What will the switch do first to handle the data transfer?

\* 2 points

Зургийг үзнэ үү. Fa0/8 портод залгагдсан 0800.069d.3841 MAC хаягтай компьютер нь 6400.6a5a.6821 MAC хаягтай төхөөрөмж рүү өгөгдөл илгээж байна. Өгөгдлийн дамжуулалтыг зохицуулахын тулд шилжүүлэгч эхлээд юу хийх вэ?

SW_B1_F2# show mac-address-table			
Mac Address Table			
Vlan	Mac Address	Type	Ports
1	0001.42ee.4ae7	DYNAMIC	Fa0/4
1	6400.6a5a.6821	DYNAMIC	Fa0/6

- ☐ The switch will send the frame to ports Fa0/4 and Fa0/6.
- ☐ The switch will flood the frame out all ports except port Fa0/8.
- ☒ The switch will add the address 0800.069d.3841 to the MAC address table.
- ☐ The switch will add the address 6400.6151.6821 to the MAC address table.
- ☐ The switch will send the frame to port Fa0/6.

Your understanding of Network Basics class until now \*

1 2 3 4 5

I didn't understand the class at all

☐☐☐☐☒

I understand the class very well

If you have any questions or any comments, please input in any language. (Option)

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