

AQA Computer Science A Level

4.9.4 The Transmission Control Protocol / Internet Protocol (TCP/IP)

Flashcards

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Which layer of the TCP / IP stack is responsible for establishing a virtual path between the sender and the receiver?



Which layer of the TCP / IP stack is responsible for establishing a virtual path between the sender and the receiver?

Transport



Name the four HTTP request methods
used by REST



Name the four HTTP request methods used by REST

POST, GET, PUT, DELETE



Which of the following is
a socket address?

A

192.168.1.1

B

255.255.255.0

C

56.32.112.3:21



Which is a socket address?

C



Which protocol uses port 80?



Which protocol uses port 80?

HTTP



A device has the IP address
192 . 168 . 12 . 44 and the subnet mask
255 . 255 . 0 . 0 .

What is the device's network identifier?



A device has the IP address 192.168.12.44 and the subnet mask 255.255.0.0. What is the device's network identifier?

192.168.0.0



Which layer of the TCP / IP stack is responsible for controlling physical connections between pieces of hardware in a network?



Which layer of the TCP / IP stack is responsible for controlling physical connections between pieces of hardware in a network?

Link



Which type of IP address allows for more unique permutations: IPv4 or IPv6?



Which type of IP address allows for more unique permutations: IPv4 or IPv6?

IPv6



What is FTP used for?



What is FTP used for?

Sending files between devices



How many bits are assigned to each part of an IPv4 address?



How many bits are assigned to each part of an IPv4 address?

Eight (one byte)



Which protocol uses port 995?



Which protocol uses port 995?

POP3



Which allows for greater centralised control of a network: thick- or thin-client?



Which allows for greater centralised control of a network: thick- or thin-client?

Thin-client



Which protocol uses a pool of available IP addresses to allocate IP addresses?



Which protocol uses a pool of available IP addresses to allocate IP addresses?

DHCP



Which is JSON?

A

```
<Department>
  <Subject>
    <Name>Physics</Name>
    <Board>Edexcel</Board>
  </Subject>
  <Subject>
    <Name>Maths</Name>
    <Board>AQA</Board>
  </Subject>
</Department>
```

B

```
{
  "Department": {
    "Subject": [
      {
        "Name": "Physics",
        "Board": "Edexcel"
      },
      {
        "Name": "Maths",
        "Board": "AQA"
      }
    ]
  }
}
```



Which is JSON?

B



Which API allows for fast transmission of data by reducing the size of packet headers?



Which API allows for fast transmission of data by reducing the size of packet headers?

The websocket protocol



For what do the letters DHCP stand?



For what do the letters DHCP stand?

Dynamic host configuration protocol



Which protocol uses port 443?



Which protocol uses port 443?

HTTPS



What is REST an acronym for?



What is REST an acronym for?

Representational state transfer



List the four layers of the TCP / IP stack
in the correct order



List the four layers of the TCP / IP stack in the correct order

- Application
- Transport
- Network
- Link



How long are IP addresses issued to a device by DHCP assigned for?



How long are IP addresses issued to a device by DHCP assigned for?

The duration of the device's session



What name is given to the process of routers replacing private IP address on packets with their own routable IP address?



What name is given to the process of routers replacing private IP address on packets with their own routable IP address?

NAT (Network address translation)



Which layer of the TCP / IP stack is responsible for providing the correct IP addresses for each packet's source and destination?



Which layer of the TCP / IP stack is responsible for providing the correct IP addresses for each packet's source and destination?

Network



Which type of IP address is globally unique: routable or non-routable?



Which type of IP address is globally unique: routable or non-routable?

Routable (public)



What is an application programming interface (API)?



What is an application programming interface (API)?

A set of protocols relating to how different applications communicate with each other



What is used when a client needs to communicate with a server that is connected to a private network?



What is used when a client needs to communicate with a server that is connected to a private network?

Port forwarding



Which table is correct?

A

CRUD	SQL
Create	GET
Rest	POST
Update	PUT
Delete	POP

B

CRUD	SQL
Create	INSERT
Remove	SET
Update	UPDATE
Define	DELETE

C

CRUD	SQL
Create	INSERT
Retrieve	SELECT
Update	UPDATE
Delete	DELETE



Which table is correct?

C

