SmartKalike

CBSE Class 12 · Computer Science

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10 most probable questions for Boards 2027

Q1. 1 mark · Very short answer

Expand HTTP and state the network service it is primarily used to access. (1 mark)

Answer

HTTP stands for HyperText Transfer Protocol and is the primary protocol for accessing the World Wide Web.

Q2. 2 marks · Short answer

Identify the client and server in the common use of HTTP, and name the transport protocol over which HTTP runs. (2 marks)

Answer

In common HTTP use, the web browser is the client and the web server hosting the requested page is the server. HTTP runs over TCP and carries requests and responses between them.

Q3. 5 marks · Long answer

What is meant by wired transmission media? Explain how such media carry data, using the idea of a physical link and signals.

Answer

Wired transmission media are physical links that carry data between communicating devices in the form of signals.
1. A physical link made of wire or cable connects the communicating nodes, providing a path for data transmission.
2. The sender converts data into signals, which travel through the wired medium towards the receiving device.
3. Twisted-pair and coaxial cables carry electric signals through conductors, while optical-fiber cables carry light signals through glass fibres.
4. The receiver accepts the signals arriving over the physical link and uses them to obtain the transmitted data.
Wired transmission therefore carries data between devices through signals propagated along a physical cable.

Q4. 1 mark · Very short answer

What kind of connection does PPP establish between two devices? (1 mark)

Answer

PPP establishes a dedicated, direct connection between two devices, allowing them to authenticate and exchange data over the link.

Q5. 2 marks · Short answer

What happens to a message in packet switching, and how may packets from the same message travel through the network?

Answer

In packet switching, a message is broken into smaller pieces called packets. Each packet is transmitted independently; packets from the same message may take different routes depending on network availability, before being reassembled at the destination.

Q6. 5 marks · Long answer

Name the three commonly used wired transmission media and describe how each is used to transmit data.

Full answer on SmartKalike: https://smartkalike.com/cbse/class-12/computer-science/data-communication

Q7. 1 mark · Very short answer

What mode must communicating devices support to use PPP? (1 mark)

Full answer on SmartKalike: https://smartkalike.com/cbse/class-12/computer-science/data-communication

Q8. 2 marks · Short answer

Describe the construction of a twisted-pair cable.

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Q9. 5 marks · Long answer

Compare twisted-pair cable, coaxial cable and optical-fiber cable according to the type of signal each carries.

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Q10. 1 mark · Multiple choice

Which statement best defines the bandwidth of a communication channel?
(A) The range of frequencies available for data transmission
(B) The number of computers connected to the channel
(C) The physical length of the channel
(D) The total number of messages stored on the channel

Full answer on SmartKalike: https://smartkalike.com/cbse/class-12/computer-science/data-communication



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