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Q.11

ANSWER:-

In telecommunication a product data unit is a single unit of information of computer networks. In the layer of communication protocol stacks, each layer implements protocols of the specific type of model of data exchange. For example the transmission of control to implements communication transfer mode. PDU of this protocol is called segment, while the user Datagram as protocol use datagrams as protocol units. A layer lower in the internet layer is called payload type.

The feature of services of network are implemented in distinct layer. For example physical layer, organizing the one and zero.

(2)

The protocol layer will exist. CPU certain data needs to perform its certain data. For example it might add a port number to identify the application network address to help the routing. A code to identify the application network address to help with routing. A code to identify the type of data in packet and error checking information. The adding the addressing and control information to an (SDU) to form a (PDU) and the passing that PDU to the next layer as an SDU repeats until the lowest layer is reached and data pass are the same medium passing over the same medium as physical signal.

(3)

Q1(b)

Answer.

Advantage :-

The advantage of consisting the session, presentation and application layer into a single application layer is that a single layer is study as all the functionalities product at this layer.

Higher bond width has number of layer is reduced

IL- reflects the real life separation application life separation of application from the top section of OSI model

Disadvantage:-

a) can make reasoning about the architecture of networks system less effective.

(4)

b) It make trouble shooting
beard as multiple errors
may reside at a single
layer.

Q26)

Ans:

There are seven layer of OSI, which are given below.

1) Physical layer.

The lowest layer of OSI is physical layer. It is responsible for actual connection between the connection of devices.

2) Data link layer:-

It is the 2nd layer of OSI. The data link is used for node to node delivery of the messages.

3) Network layer:-

Network layer work for the transmission of data from one location to another.

4) Transport layer:-

The transport layer is used to transfer one layer application or message from one place to another.

5) Session layer:-

The layer is responsible for establishment of connection, maintenance of session, authentication and also ensure security.

6) Presentation layer:-

The data from application layer is extracted and manipulated as per required format.

7) Application layer:-

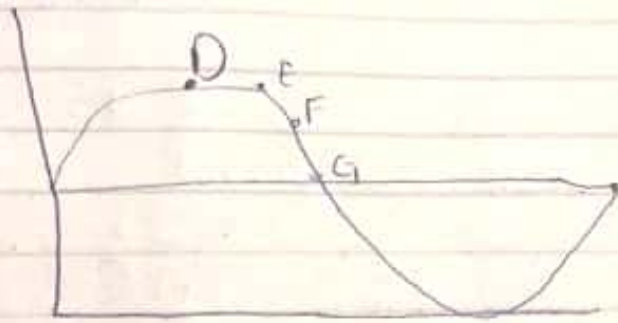
It is the last layer of OSI. The producer data which has to be transferred over the network.

②

Q 2(b)

Answer :-

Phase is a specific location in a sine wave. So in this we can not plot phase of a sine wave in a time phase plot as the wave is constantly changing.



As we can see that all the points are in different position thus we can not explicitly plot the phase in the phase in time plot.

(8)

Q No 3
(b)

Answer:

Given Data:

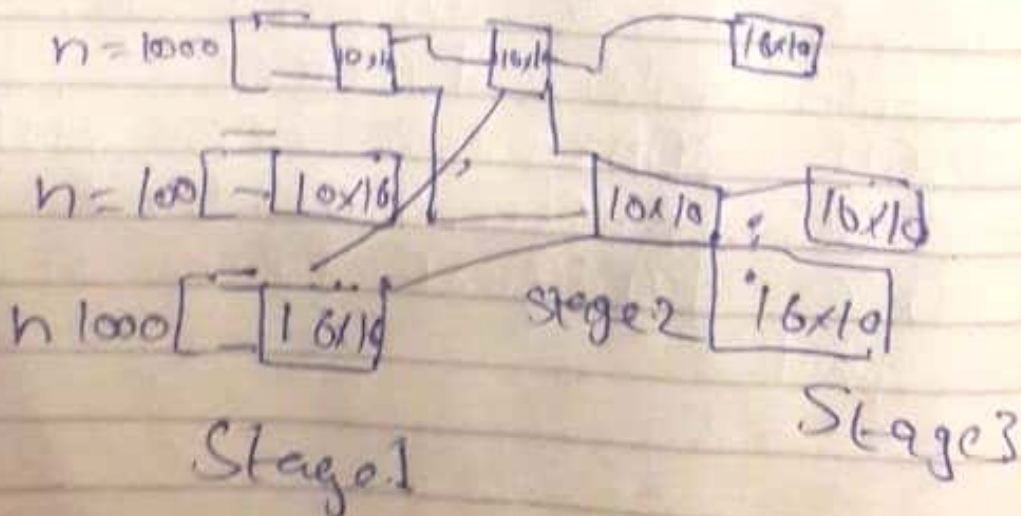
$$N = 10,000$$

$$n = 1000$$

$$k = 16$$

in the first stage we have $N/n = 10000/1000 = 10$

cross pers, each of size is 10×16 in the second stage we have 4 cross of size 10×10 in the third stage we have 10 cross pers.



①

Total number of crosspoint

$$10(10 \times 16) + 16(16 \times 16) + 10(16 \times 10)$$

$$1600 + 1600 + 1600$$

$$= 4800$$

Only 16 simultaneous connections are possible for each crosspoint.

$$16 \times 16 = 160$$

If we use a crosspoint (1000x1000) all input lines can have a connection at the same time which means 1000 simultaneous connections.

The blocking factor is

$$160/1000 = 16\%$$