**Mid Term Paper (Spring-2022)**

**BSCS/BSIT/BSSE (Morning/Evening)**

**Computer Networks ( CS-577 )**

**Maximum Marks: 18 Total Time: 1.0Hr**

**Question N0. 1 [Marks: 5]**

With reference to OSI model, complete the following table by choosing relevant functionality and protocol of each layer (you can choose more than one option if applicable):

Translate Data, Routing, Encryption, Synchronization, Framing, Hop to hop delivery, CRC, End to end delivery, Process to process delivery, HTTP, Ethernet, TCP, ARP, Sockets, SSL and IP.

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| --- | --- | --- |
| **Layer** | **Functionality** | **Protocol** |
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**Question N0. 2 [Marks: 4]**

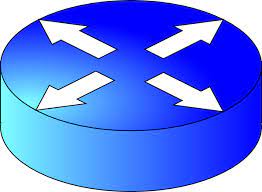
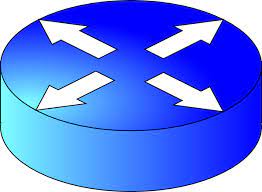
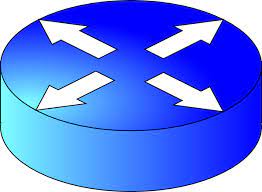
Suppose data is being transmitted between source and destination, does control of data transportation needs to be performed at the intermediate nodes? Yes or No, Provide Justification.

**Question N0. 3 [Marks: 4]**

Any computer needs configuring to enable it to communicate with other computers in a network environment. State the pieces of information that a computer requires to achieve this communication.

**Question N0. 4 [Marks: 5]**

Consider the following figure, the distance between router R1 and R2 is 100KM with a link capacity of 4Mbps and between R2 and R3 is 200KM with link capacity of 8Mbps. Ignoring queing and processing delay what is the total delay when packet of size 1000Bytes reaches at R3 from R1.



R1 R2 R3

**\*\*\*\*Good Luck\*\*\*\*\***