Q. Write a short note on the multiplexing and demultiplexing service provided by UDP?

Multiplexing: When multiple applications or protocols use UDP, they can share the same network interface and port number combination. The operating system assigns a unique port number to each application or protocol. These port numbers act as identifiers for multiplexing the outgoing data streams.

Demultiplexing: On the receiving end, the operating system receives UDP datagrams from the network interface. It examines the destination port number in the IP header to identify the appropriate application or protocol to which the datagram should be delivered. The operating system then forwards the UDP datagram to the corresponding application or protocol based on the port number.

