

NP-3612

**B. Sc. (Computer Science) Examination,
June-2023**

**COMPUTER NETWORK
(B.C.S.-602)**

Time : 3 Hours]

[Maximum Marks : 75

Note : Attempt all the sections as per instructions.

Section-A

Note : Attempt all the five questions. Each question carries 3 marks.

1. Write the goals of Networks.
2. Name a few topologies frequently used.
3. Explain the work of the Physical Layer.
4. What is DNS ?
5. Write IEEE standards for communication.

(2)

Section-B

Note : Attempt any two questions out of the following.

Each question carries 7.5 marks.

6. Discuss the purpose of data link layer in OSI reference model.
7. Define the responsibilities of the Data Link Layer.
8. Determine the maximum length of the cable (in km) for transmitting data at a rate of 500 Mbps in an Ethernet LAN with frames of size 10,000 bits. Assume the signal speed in the cable to be 2,00,000 km/s.

Section-C

Note : Attempt any three questions out of the following. Each question carries 15 marks each.

9. Explain TCP/IP reference Model in detail.
10. Explain ATM architecture with its design goals.

11. Explain the IEEE standards for communications.
12. Discuss the issues of Data link layer protocol and explain the sliding window protocol.
13. Explain following terms-
 - (i) Telnet
 - (ii) HTTP
 - (iii) SMTP
 - (iv) URL