

23BCS403

**UG PROGRAM (4 YEARS HONOURS) WITH SINGLE MAJOR
AT THE END OF FOURTH SEMESTER
COMPUTER SCIENCE - DATA COMMUNICATIONS AND COMPUTER
NETWORKS (B.SC. HONOURS-MAJOR)**

(w.e.f. Admitted Batch 2023-24)

Time: 3 Hours

Maximum: 70 marks

Section-A

Answer any Five Questions.

5x4=20

1. Explain about the Computer Network Applications.
2. What are the elementary data link protocols? Explain.
3. Explain about Network layer design issues.
4. What are the elements of transport protocol? Explain.
5. Explain about the architectural overview of World Wide Web.
6. Write about Wireless Transmission Media.
7. Discuss briefly about congestion control algorithms.
8. What is Domain Name System? How does it work? Explain.

Section-B

Answer All Questions.

5x10=50

9. (a) Discuss in brief about OSI and TCP/IP reference models.

(Or)

(b) Explain about guided transmission media.

10. (a) What is Data Link Layer? Explain about error detection and correction methods.

(Or)

(b) Define Protocol. Explain about Sliding Window Protocols.

11. (a) Discuss about routing algorithms.

(Or)

(b) Explain in detail about IPv4 and Ipv6. Write their differences.

12. (a) Write about Simple Transport Layer Protocol.

(Or)

(b) Explain about Internet Transport Layer Protocols.

13. (a) Explain about the services provided by application layer.

(Or)

(b) Write a brief note on SNMP, FTP, SMTP and Telnet.