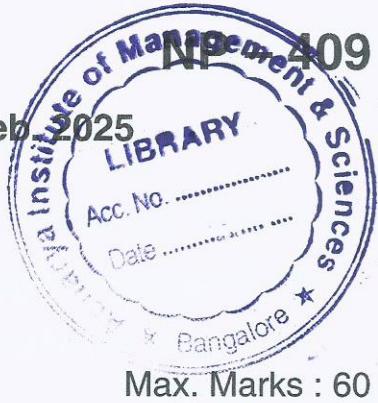




III Semester B.C.A. Examination, Jan./Feb. 2025
(NEP) (F+R)
COMPUTER SCIENCE
CA-C12T : Computer Networks



Time : 2½ Hours

Max. Marks : 60

Instruction : Answer all Sections.

SECTION – A

I. Answer **any four** questions. **Each** question carries **2** marks. **(4×2=8)**

- 1) Define data communication.
- 2) What is congestion control ?
- 3) What is piggy backing ?
- 4) Differentiate between FDMA and TDMA.
- 5) Define telnet and ftp.
- 6) Mention any two services provided by the Transport Layer.

SECTION – B

II. Answer **any four** of the following. **Each** question carries **5** marks. **(4×5=20)**

- 7) Explain the TCP/IP protocol suite with a diagram.
- 8) Describe error detection and correction techniques.
- 9) Write a short note on CSMA/CD and its significance.
- 10) Explain the difference between static and dynamic routing.
- 11) Compare TCP and UDP, highlighting their features and use cases.
- 12) Discuss the Quality of Service (QoS) techniques in computer networks.



SECTION – C

III. Answer any four of the following. Each question carries 8 marks. (4x8=32)

- 13) Discuss the various types of transmission media.
 - 14) Explain the structure and working of the HDLC protocol in the Data Link Layer.
 - 15) What is packet switching ? Discuss its advantages and working.
 - 16) Write in detail about IPv6 addressing and its improvements over IPv4.
 - 17) Describe the OSI model with a detailed explanation of its layers and functionalities.
 - 18) Describe the process of TCP congestion control and flow control with suitable diagrams.
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