

**SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)**

**(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.**

BCA. END SEMESTER EXAMINATIONS NOVEMBER-2022

SEMESTER - IV

20UACT4007 - Data Communication and Network

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section A

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Define transmission mode. List out different types of transmission mode and explain with a neat diagram.
2. Classify the various types of networks. Explain with a suitable diagram.
3. Differentiate between parallel and serial transmission.
4. What is FDDI? List out the characteristics of FDDI.
5. Explain any three multiplexing application area.
6. State and explain the ISDN Layers.
7. What are Bridges? Write about the various types of Bridges.
8. How do we provide security to the network? Mention the various network security techniques.

Section B

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Explain the architecture of OSI Model with a neat diagram.
10. Discuss about the various guided and unguided media used for data transmission.
11. Distinguish between connection oriented and connectionless services.
12. What is digital signature? How digital signature work in cryptography and explain with an example.
13. Why do we need routing algorithms? Describe any two routing algorithms with the suitable example.

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