

**2024/FYUG/EVEN/SEM/
BVTDSC-151T/149**

FYUG Even Semester Exam., 2024

**BACHELOR OF VOCATIONAL COURSE
(INFORMATION TECHNOLOGY)**

(2nd Semester)

Course No. : BVTDSC-151T

(Computer Network)

Full Marks : 35

Pass Marks : 14

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

Answer any five of the following questions : $2 \times 5 = 10$

- 1. Define analog and digital signal with example.**
- 2. Define serial transmission.**
- 3. Define circuit switched network.**

(2)

4. Distinguish between upstream sharing and downstream sharing.
5. Differentiate between single bit-error and burst error.
6. Distinguish between error detection and error correction.
7. Define random access protocol and controlled access protocol.
8. Explain pure ALOHA.
9. Distinguish between super-netting and sub-netting.
10. Define IPv4 address.

SECTION—B

Answer any *five* of the following questions : 5×5=25

11. Explain bipolar line coding scheme with example.
12. Briefly explain different network topologies.

(3)

13. Briefly explain the following :
 - (a) Dial-up modems
 - (b) Virtual Circuit Identifier (VCI)
14. Define DSL technology. Briefly explain discrete multitone technique for modulation.
15. Explain cyclic redundancy check with suitable example.
16. Briefly explain stop-and-wait protocol with example.
17. Briefly explain the following backbone networks :
 - (a) Bus backbone
 - (b) Star backbone
18. Write short notes on the following :
 - (a) Hubs
 - (b) Bridges
 - (c) Router
 - (d) Gateways
 - (e) Repeaters

(4)

19. Explain different classes of classfull IP addressing with example.

20. Write short notes on the following:

(a) HTTP

(b) FTP
