Seat No.

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# MAR_APR 2025 SUMMER EXAMINATION

## 11731 Bachelor of Technology (NEP-2.0)

## Sub. Name: High Performance Communication Networks

## Sub. Code: 84864/85044

**Day and Date: MAY ,26-05-2025** **Total Marks: 70**

**Time: 10:30 AM To 01:00 PM**

**Instructions:** **1. All questions are compulsory**
**2. Draw neat labelled diagrams wherever necessary**
**3. Figures to the right indicate full marks**

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**Q1)** Attempt following Multiple choice questions. **[14]**

**i.** Which of the following is considered as Network Element?

A. Node
B. Network Device
C. Link
D. All of above

**ii.** ISDN integrates speech and data on_____

A. Different lines
B. Same lines
C. Different & Same lines
D. None of the mentioned

**iii.** ATM standard defines _____ layers.

A. 2
B. 3
C. 4
D. 5

**iv.** A multiplexer _____ several transmission streams while a demultiplexer _____ them.

A. combines ; separates
B. compresses ; decompresses
C. encrypts ; decrypts
D. separates ; combines

**v.** What type of routing is used in VANET?

A. Single layer routing
B. Cross Layer Routing
C. Hybrid Routing
D. AP Routing

**vi.** _____ type of VPNs are used for home private and secure connectivity.

A. Remote access VPNs
B. Site-to-site VPNs
C. Peer-to-Peer VPNs
D. Router-to-router VPNs

**vii.** MPLS works on which layer of OSI Model.

A. It works on layer 3
B. It works on layer 2
C. It works between layer 2 and layer 3
D. It works between layer 3 and 4

**Q2) Attempt any two of the following questions** **[14]**

**a.** Draw & explain Open data network model? **[7]**

**b.** With neat schematic explain FDDI network? **[7]**

**c.** Explain layers of ATM model ? **[7]**

**Q3) Attempt any two of the following questions.** **[14]**

**a.** Draw & explain DQDB network? **[7]**

**b.** Write short note on Network Element? **[7]**

**c.** Explain with block diagram ATM Switching? **[7]**

**Q4) Attempt any two of the following questions** **[14]**

**a.** What is VPN? Explain Remote Access VPN? **[7]**

**b.** With neat sketch explain optical cross-connect? **[7]**

**c.** Draw & explain Cooperative System Architecture in VANET? **[7]**

**Q5) Attempt any two of the following questions.** **[14]**

**a.** Explain the block diagram of WDM system? **[7]**

**b.** What is MPLS? Explain MPLS Header? **[7]**

**c.** Write short note on Infrastructure-to-vehicle applications? **[7]**

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# End Of Question Paper

**Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -**
This Question Paper may be distributed for following Subjects as common code.
सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (1154) B.Tech. CBCS (84864) High Performance Communication Networks Part 4 SEM 8

2] (101) Bachelor of Engineering (85044) High Performance Communication Networks Part 4 SEM 8

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