

**Roll No.**

**Total No. of Pages : 02**

**Total No. of Questions : 09**

**B.Tech. (CSE/IT) (Sem.-7)**  
**ROUTING & SWITCHING**  
**Subject Code : BTEC-905A-18**  
**M.Code : 90691**  
**Date of Examination : 10-01-2023**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

## SECTION-A

**1. Write briefly :**

- (a) What are Ethernet frame types?
- (b) How an IP address is represented?
- (c) What are the considerations when expanding network?
- (d) Write the limitations of using circuit switching network for data communication.
- (e) What is OSPF?
- (f) What are IPv6 application services?
- (g) Difference between GARP and GVRP.
- (h) What is frame relay and its basic features?
- (i) How can we secure data with IPsec?
- (j) What is ADSL internet services?

## **SECTION-B**

2. In which layer is Address Resolution Protocol used? How does it work?
3. What are the differences between Distance Vector Routing and Link State Routing Protocols?
4. Explain VLAN principles and VLAN routing.
5. Write a note on Generic Routing Encapsulation.
6. What are transport layer protocols? Explain them.

## **SECTION-C**

7. **Write a note on:**
  - (a) Bridging Enterprise Networks with Serial WAN Technology
  - (b) Authentication, Authorization and Accounting in Network Security.
8.
  - (a) Explain various fields of IPv6 address format.
  - (b) Explain Simple Network Management Protocol.
9.
  - (a) What is network architecture and how does it work?
  - (b) Explain Internet Control Message Protocol.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**