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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech. (AI&ML/AI&DS/CSE/IT/Internet of Things and Cyber Security
including Block Chain Technology)(Sem.–7)**

ROUTING AND SWITCHING

Subject Code : BTEC-905A-18

M.Code : 90691

Date of Examination : 27-11-2025

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) Define what is a CLI file.
- b) What do you mean by transport layer protocols?
- c) Define the term SNMP protocol.
- d) What do you mean by mapped IPv6 address?
- e) Differentiate between TCP and UDP.
- f) Draw the ethernet frame structure for IEEE 802.3.
- g) *“Is NAT a security feature on Router”?* Clarify.
- h) How does Generic Routing Encapsulation (GRE) is used in DDoS attacks?
- i) Write briefly about requirement of access control list in network security
- j) What is Dynamic Host Configuration Protocol (DHCP)?

SECTION - B

2. Discuss about the working environment of Wireless LAN.
3. How can NAT help transition to IPv6?
4. Discuss how frame processing is carried in VLAN?
5. Explain about the detailed procedure for establishing a single switched network.
6. Explain about the VRP Operating System Image Management.

SECTION - C

7. Discuss the working of Distance Vector Routing Protocol with RIP.
8. Discuss about Authentication, Authorization and Accounting (AAA).
9. **Discuss the followings:**
 - a) VLAN Routing
 - b) Establishing Enterprise Radio Access Network Solutions.

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.