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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE / IT) (Sem.-7)

ROUTING AND SWITCHING

Subject Code : BTEC-905A-18

M.Code : 90691

Date of Examination : 25-05-23

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) Why should you use CLI?
- b) Why Rapid Spanning Tree protocol is faster than Spanning Tree Protocol?
- c) What is the difference between dynamic IP and static IP addressing?
- d) What is OSPF?
- e) What are the different network security techniques?
- f) Describe Flow Control and Buffering in Transport Layer.
- g) Define Ethernet.
- h) What is ADSL Internet service?
- i) Difference between host name and IP address
- j) List the advantages of IPv6 routing.

SECTION-B

2. Explain the term Authentication, Authorization and Accounting (AAA) used in network security.
3. What is Network Address Translation? Explain Translation method in brief.
4. Briefly explain the various fields of IPV6 address format.
5. What is Generic Routing Encapsulation? How does it work?
6. What are some of the possible services that a link-layer protocol can offer to the network layer? Which of these link-layer services have corresponding services in IP?

SECTION-C

7. An Internet Service Provider (ISP) has the following chunk of CIDR-based IP addresses available with it : 245.248.128.0/20. The ISP wants to give half of this chunk of addresses to Organization A, and a quarter to Organization B, while retaining the remaining with itself. What are the valid allocation of address to A and B? Explain.
8. What are the services provided by application layer? Explain FTP and SMTP Application Layer Protocol in detail.
9. Explain the following :
 - a) VRRP Operating System Image Management.
 - b) Establishing DSL/ADSL networks with PPPoE.

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.