Enroll. No. _____

SUPPLEMENTARY EXAMINATION: JUNE - JULY, 2019

EXPLORING THE NETWORKS

11307
[E.T]
Time: 3 Hrs. Max Marks: 70

Note: Attempt questions from all sections as directed.

Section - A: Attempt any Five questions out of Six. Each question carries 6 marks. [30 Marks]

Q1. Describe the operation of tracert/traceroute as it is used to trace the path across an internetwork?

Q2. Describe the use of the output of the ping command to establish relative network performance?

Q3. Identify the roles of standards agencies in protocols.?

Q4 Identify the key components of any data network. Identify the opportunities and challenges posed by converged networks.?

Q5. Explain the role of Transport Layer protocols and services in supporting Communications across data networks.

Q6. . Explain the role of protocols in supporting communication between server and client processes.

Section - B: Attempt any two questions out of three. Each question carries 10 marks. [20 Marks]

Q 7 Describe the implications of the IPv4 protocol being media independent, unreliable, and connectionless.

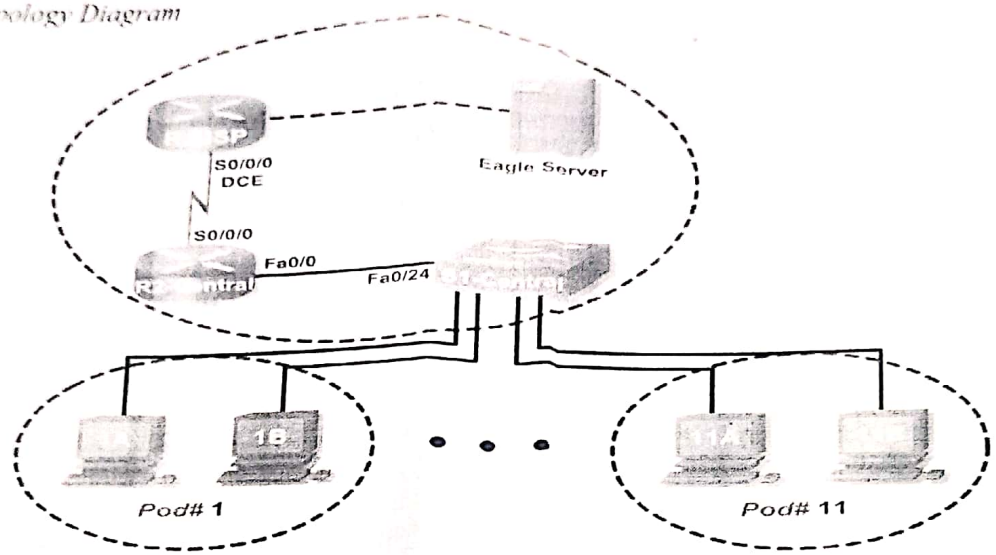
Q8. (a) Describe the use of TCP window size as a part of flow control to assist the reliability processes.
(b)Identify the information contained in a Layer 4 PDU as it is processed along the path to the destination?

Q9. Discuss the purpose of including a source address in the frame header. Could just one layer 2 address be used? If so, how? Are there any data link layer protocols that use a single address?

Section - C Compulsory question [20 Marks]

For a given Topology diagram and Addressing table Answer the question below.

Topology Diagram



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1-ISP	S0/0/0	10.10.10.6	255.255.255.252	N/A
	Fa0/0	192.168.254.253	255.255.255.0	N/A
R2-Central	S0/0/0	10.10.10.5	255.255.255.252	N/A
	Fa0/0	172.16.255.254	255.255.0.0	N/A
Eagle Server	N/A	192.168.254.254	255.255.255.0	192.168.254.253
	N/A	172.31.24.254	255.255.255.0	N/A
host*Pod*#A	N/A	172.16.*Pod*#.1	255.255.0.0	172.16.255.254
host*Pod*#B	N/A	172.16.*Pod*#.2	255.255.0.0	172.16.255.254
S1-Central	N/A	172.16.254.1	255.255.0.0	172.16.255.254

Q.10

a) Configure the network as per the given routing table. 8 Marks

b) Use a Windows Telnet client command to connect to a Cisco router. 4 Marks

c) Examine router routes using basic Cisco IOS commands. 4 Marks

d) Troubleshoot the network using commands. 4 Marks