

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

M.C.A.

SEM: IV - THEORY EXAMINATION (2021 - 2022)

Subject: Connecting Network

Time: 3 Hours

Max. Marks: 100

General Instructions:

1. The question paper comprises three sections, A, B, and C. You are expected to answer them as directed.
2. Section A - Question No- 1 is 1 marker & Question No- 2 carries 2 mark each.
3. Section B - Question No-3 is based on external choice carrying 6 marks each.
4. Section C - Questions No. 4-8 are within unit choice questions carrying 10 marks each.
5. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION A

20

1. Attempt all parts:-

- 1-a. Open Shortest Path First (OSPF) is also called as _____ (CO1) 1
- (a) Link state protocol
 - (b) Error-correction protocol
 - (c) Routing information protocol
 - (d) Border gateway protocol
- 1-b. The outcome of Dijkstra's calculation is used to populate the _____ (CO1) 1
- (a) Topology table
 - (b) Routing table
 - (c) Neighbor table
 - (d) Adjacency table
- 1-c. Which is link state vector protocol (CO2) 1
- (a) OSPF
 - (b) Frame relay
 - (c) WAN Cloud
 - (d) LMI
- 1-d. A Class A address has _____ host bits. (CO2) 1
- (a) 8
 - (b) 16
 - (c) 20
 - (d) 24
- 1-e. Information bearing channels in ISDN are called _____ (CO3) 1
- (a) D channels
 - (b) Data channels
 - (c) B channels
 - (d) Voice channels
- 1-f. The data unit of ATM is _____ (CO3) 1
- (a) Cell
 - (b) Atom
 - (c) Molecule
 - (d) Packet
- 1-g. DTE stands for? (CO4) 1

- (a) Data Terminating Equipment
 - (b) Data Terminal Equipment
 - (c) Data Transforming Equipment
 - (d) Disaster Teraforming Ergonomics
- 1-h. Which of the following is a form of DoS attack? (CO4) 1
- (a) Vulnerability attack
 - (b) Bandwidth flooding
 - (c) Connection flooding
 - (d) All of the mentioned
- 1-i. A _____ is a combination load balancer and application server that is a server placed between a firewall or router. (CO5) 1
- (a) ABC
 - (b) ACD
 - (c) ADC
 - (d) All of the mentioned
- 1-j. MySQL uses security based on ACL which stands for _____ (CO5) 1
- (a) Access Control Language
 - (b) Access Control Lists
 - (c) Automatic Control Lists
 - (d) Automatic Control Language

2. Attempt all parts:-

- 2.a. Why is OSPF called a loop-free protocol? (CO1) 2
- 2.b. What is Soft-fax and Soft-modem? (CO2) 2
- 2.c. What are the types of ACLs? (CO3) 2
- 2.d. How does phishing work? (CO4) 2
- 2.e. Define Digital Signatures? (CO5) 2

SECTION B

30

3. Answer any five of the following:-

- 3-a. What is your approach to connected security to prevent targeted attacks and zero-day threats? (CO1) 6
- 3-b. What is the use of proxy in SNMP. Does it require only when the network has SNMP1 and SNMPV2? (CO1) 6
- 3-c. What is Authentication, Confidentiality & Integrity? (CO2) 6
- 3-d. Explain in detail WAN in OSI model. (CO2) 6
- 3.e. State GRE characteristics? (CO3) 6
- 3.f. State algorithms OSPF demands, and what is the principle behind it? (CO4) 6
- 3.g. Explain in detail how to create an ACL. (CO5) 6

SECTION C

50

4. Answer any one of the following:-

- 4-a. Differentiate between Standard ACL and Extended ACL? (CO1) 10
- 4-b. Explain the algorithm used by OSPF in detail. (CO1) 10

5. Answer any one of the following:-

- 5-a. Explain why do you need to establish a PPPoE internet connection? (CO2) 10
- 5-b. What are the various types of communities used in BGP? Why are they used? (CO2) 10

6. Answer any one of the following:-

- 6-a. Differentiate between Asymmetric DSL and Symmetric DSL. (CO3) 10

- 6-b. Explain in detail IGP routing protocol. (CO3) 10
7. Answer any one of the following:-
- 7-a. What kind of policies and procedures need to be developed for VPN? (CO4) 10
- 7-b. Explain, If the priority of OSPF is changed to zero, what will be the result? (CO4) 10
8. Answer any one of the following:-
- 8-a. What are the operational steps used when traffic has entered a router interface with an inbound standard IPv4 ACL configured? (CO5) 10
- 8-b. Explain in detail about the Wildcard Mask to Match an IPv4 Address Range. (CO5) 10