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Class Test (2) Examination: Fall-2024
Course Code: CIS 211 (Batch: 17)
Course Title: Computer Network

Time: 30 Minutes **Total Marks: 15**

1. Suppose a network with IP Address 192.16.0.0 is divided into 2 subnets. Find number of hosts per subnet. Also for the first subnet, find- Subnet Address, First Host ID, Last Host ID, Broadcast Address. 5

2. Suppose given an IP address: 192.168.2.0/24. And we need to create 4 subnets using following host requirements: 5

   1st subnet = 120, 2nd subnet = 60, 3rd subnet = 30, 4th subnet = 30. Find network address, broadcast address, 1st host and last host address of each subnetwork.

3. How does subnetting impact network performance and security? Provide examples. 5

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1. Given the IP address 192.168.10.0/24, how many subnets can you create if you use a subnet mask of 255.255.255.192 (/26)? List the subnet addresses and their corresponding ranges. 5

2. You have been assigned the network 172.16.0.0/16 and need to create subnets for three different departments. The department requirements are as follows: Department A needs 1000 IP addresses, Department B needs 500 IP addresses, and Department C needs 200 IP addresses. Using VLSM, what subnet masks should be used for each department, and what are the network addresses for each subnet? 5

3. Find the summarized IP address with subnet mask of the following IP addresses. 5

(a)172.16.72.0/24 (b)172.16.75.0/24 (c)172.16.77.0/24 (d)172.16.79.0/24

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Daffodil International University

Department of CIS

Quiz-1, Time: 30 Mins

Computer Network, Marks-15

1. Briefly explain the functions of Open System Interconnection (OSI) layer 1-4 with mentioning the protocols. [6]
2. Distinguish the functions of Transport Control Protocol (TCP) and User Datagram Protocols? [5]
3. Briefly explain with diagram the function of 802.3 Ethernet frame format. [4]