**Class Test 1**

**Section B (Set A)**

**CSE 319: Computer Networks**

**Name:**

**ID:**

**Time: 30 min**

| **1.** | Your router has the following IP address on Ethernet0: 172.16.2.1/23. Which of the following can be valid host IDs on the LAN interface attached to the router?  172.16.1.100  172.16.1.198  172.16.2.255  172.16.3.0  **There might be no answer or multiple answers.** You should support your opinion with a detailed explanation of how you concluded your answer. | **10** |
| --- | --- | --- |
| **2.** | You need to subnet a network that has 5 subnets, each with at least 16 hosts. Which classful subnet mask would you use?  a)255.255.255.192  b)255.255.255.224  c)255.255.255.240  d)255.255.255.248  **There might be no answer or multiple answers.** You should support your opinion with a detailed explanation of how you concluded your answer. | **5** |
| **3.** | An IP address is given as 99.2.0.0/20 . Now answer the following questions:  What is the subnet mask?  Find out the number of subnets?  Find out the number of valid hosts per subnet and the block size?  Find out the Network address and broadcast address?  Find out the first and last valid host. | **15** |