



Daffodil International University
 Department of Computer Science and Engineering
 Faculty of Science & Information Technology
 Midterm Examination, Spring 2023
 Course Code: CSE 313, Course Title: Computer Networks
 Level: 3 Term: 1 Batch: 58 and 59

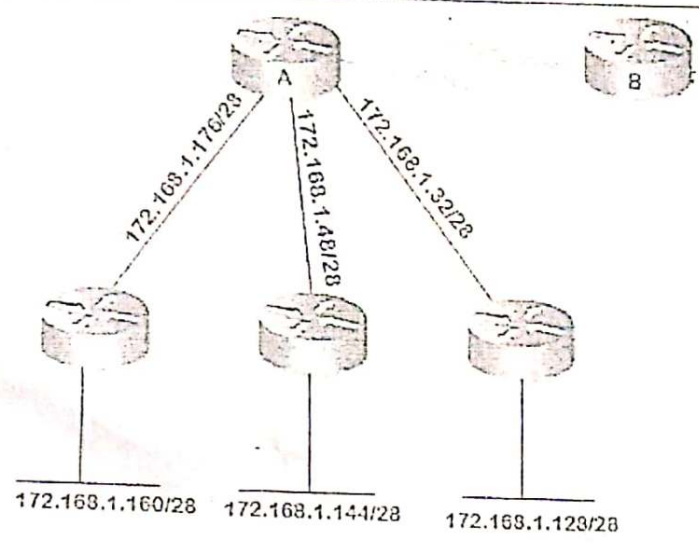
Time: 1.5 Hrs

Marks: 25

Answer ALL Questions

*[The figures in the right margin indicate the full marks and corresponding course outcomes.
 All portions of each question must be answered sequentially.]*

1.	Suppose, you are a network administrator of an emerging Network company. You have been given an IP address of a network 125.0.0.0. You need to divide this network for five departments of your organization to support 980, 490, 120, 25 and 5 hosts. Identify each subnetwork's subnet mask, network address, broadcast address, first valid host and last valid host address.	10	CO3
2.	Consider the following diagram with the indicated link cost. Use Link State routing algorithm to discover the shortest path from router 1 to all destinations.	05	CO3
<pre> graph TD 1((1)) -- 2 --> 2((2)) 1((1)) -- 1 --> 4((4)) 2((2)) -- 10 --> 5((5)) 3((3)) -- 4 --> 1((1)) 3((3)) -- 5 --> 6((6)) 4((4)) -- 2 --> 3((3)) 4((4)) -- 2 --> 5((5)) 4((4)) -- 8 --> 6((6)) 4((4)) -- 4 --> 7((7)) 5((5)) -- 6 --> 7((7)) 6((6)) -- 1 --> 7((7)) </pre>			
3.	From the following diagram, determine the Aggregated IP address, CIDR and mask from router A to router B.	05	CO2

			
4.	Explain the DNS name resolution techniques with suitable diagrams.	05	CO1