BHARATIYA VIDYA BHAVAN'S

SARDAR PATEL INSTITUTE OF TECHNOLOGY

MUNSHI NAGAR, ANDHERI (WEST), MUMBAI – 400 058, India
(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination-Synoptic

Max. Marks: 20 Duration: 1Hr.
Class: B.E./B.Tech. ETRX Semester: VII
Course Code: ELE 73B Date: 18/09/19
Subject: Computer and Communication Networks Time: 2.00PM

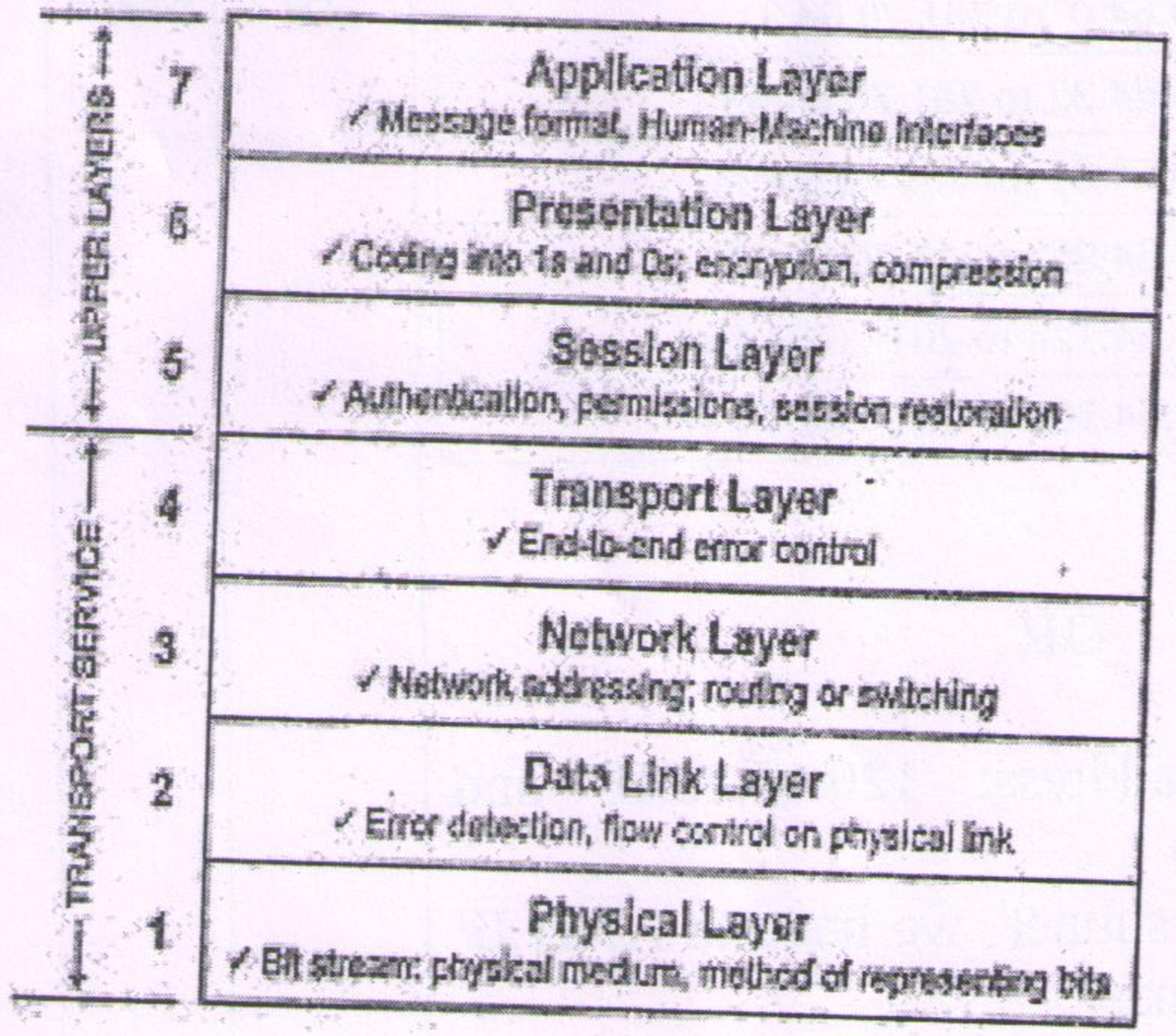
Instructions: (1) All questions are compulsory.
(2) Use of scientific calculator is allowed.
(3) Assume any necessary data but justify the same.

<table>
<tr><th>Q. No.</th><th>Questions</th><th>Max Marks</th><th>CO</th><th>BL</th></tr>
<tr><td>Q. 1</td><td>This is class C network-address. So default mask is 255.255.255.0 and as we need 6 subnets, so customized subnet mask will be 255.255.200.0
Ranges of subnet are as follows:-
<table>
<tr><th>Subnet Number</th><th>Addresses</th></tr>
<tr><td>1.</td><td>201.70.64.0 to 201.70.64.31</td></tr>
<tr><td>2.</td><td>201.70.64.32 to 201.70.64.63</td></tr>
<tr><td>3.</td><td>201.70.64.64 to 201.70.64.95</td></tr>
<tr><td>4.</td><td>201.70.64.96 to 201.70.64.127</td></tr>
<tr><td>5.</td><td>201.70.64.128 to 201.70.64.159</td></tr>
<tr><td>6.</td><td>201.70.64.160 to 201.70.64.191</td></tr>
</table>
OR
(Department1)–IP address: 120.14.22.16 and Mask:255.255.128.0
In order to find the subnet we have to AND IP address and subnet mask.
So(Department1)–net-id: 120.14.0.0 and host-id:- 14.0.0 since 120 corresponds to class A IP address. Hence last three bytes corresponds to host portion.</td><td>10

10</td><td>CO 3

CO 3</td><td>L3

L3</td></tr>
</table>

	Similarly we can find remaining network-address and host-address.			
Q.2	Wifi: 802.11 a/b/g/n/ac, 2.4 or 5GHz Bluetooth: IEEE 802.15.1, 2.4GHz Bluetooth uses FFHSS and so it hops at the rate of 1600 hops/sec. So even though it is operating in license free band, the chances of interfering with other frequencies operating in 2.4 GHz band will be minimum/negligible.	03	CO1	L2
Q.3	Google dns port number: 53 DNS uses TCP for Zone transfer and UDP for name queries either regular (primary) or reverse. UDP can be used to exchange small information whereas TCP must be used to exchange information larger than 512 bytes.	02	CO1	L2
Q. 4		05	CO1	L2