**BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY**

**Unit Test-I (Shift:-I&II)**

**Program Name: Computer Engineering Group**

**Program Code: CM/IF**

**Semester: Fifth**

**Course Title: Advanced Computer Network (Elective)**

**Course Code: 22520**

**UNIT –I NETWORK LAYER AND PROTOCOLS**

**2 Marks Questions**

1. Define address space. Give address space for IPv4. (CO1)
2. Explain IPv4 address Notation. (CO1)
3. Explain classful Addressing. (CO1)
4. Define Mask . (CO1)
5. Explain Subnetting. (CO1)
6. Explain supernetting. (CO1)
7. List debugging tools used by ICMP and state its use. (CO1)

**4 Marks Questions**

1. Explain how to find the class of given IP address. (CO1)
2. Find the class of each address. (CO1)
3. 00000001 00001011 00001011 11101111
4. 11000001 10000011 00011011 11111111
5. 14.23.120.8
6. 252.5.15.111
7. Explain netid, hostid with respect to class A,B,C. (CO1)
8. Define Address Block and Specify the restrictions for assigning Classless address block. (CO1)
9. One of the addresses in block of addresses is 205.16.37.39/28. What is the first address, Last address and Number of addresses in the block? (CO1)
10. Explain NAT(CO1)
11. Draw and explain IPv4 datagram format. (CO1)
12. Explain Fragmentation. (CO1)
13. Explain Option in IPv4.(CO1)
14. Explain IP Addressing. (CO1)
15. Explain phases used for Mobile IP. (CO1)
16. Explain Virtual Private Network Technology. (CO1)

**UNIT –II NEXT GENERATION IP**

**2 Marks Questions**

1. Define address space. Give address space for IPv6. (CO2)
2. Explain IPv6 address Notation. (CO2)
3. Explain IPv6 abbreviations with example. (CO2)

**4 Marks Questions**

1. How transition takes place from IPv4 to IPv6. (CO2)
2. IPv6 Auto configuration. (CO2)
3. Draw and explain IPv4 datagram format. (CO2)
4. Explain Extension Header of IPv6. (CO2)

**UNIT –III UNICAST AND MULTICAST ROUTING PROTOCOL**

**2 Marks Questions**

1. Define Inter-domain routing and Intra-domain routing. (CO3)
2. Define i) Static Routing Table ii) Dynamic Routing Protocol. (CO3)
3. Define unicast, multicast, and broadcast communication.(CO3)

**4 Marks Questions**

1. Explain Distance Vector Routing.(CO3)
2. Explain Link State Routing.(CO3)
3. Explain Path Vector Routing.(CO3)
4. Explain Routing Information Protocol.(CO3)
5. Explain Open Shortest Path First.(CO3)
6. Explain Border Gateway Protocol.(CO3)
7. Explain Multicast Distance Vector Routing: DVMRP.(CO3)
8. Explain Protocol Independent Multicast.(CO3)