Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov/Dec– 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **17CS3015** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTERNETWORKING** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Given the address space 172.30.4.0/22 and the network requirements shown in figure, apply an addressing scheme that conserves the most amount of addresses for future growth. Explain each step of subnetting with neat example.  Figure 9-1 | CO3 | 10 |
| b. | Outline your view on Special Case IP Addresses. | CO1 | 5 |
|  | c. | Write short note on IP Header. | CO1 | 5 |
| (OR) | | | | |
| 2. | a. | Discuss briefly about SLIP, Compressed SLIP and PPP protocols along with their frame formats, merits and demerits. | CO1 | 10 |
| b. | Discuss about loopback interface. | CO1 | 5 |
| c. | Write short note on the following commands:  i.arp ii. netstat iii ipconfig iv. ping | CO3 | 5 |
|  |  |  |  |  |
| 3. | a. | Compare RIP and OSPF routing protocols along with packet format and functionalities. | CO2 | 10 |
|  | b. | Describe the motivation of BGP protocol. | CO2 | 6 |
|  | c. | Express your view on CIDR. | CO1 | 4 |
| (OR) | | | | |
| 4. |  | Differentiate Broadcasting and Multicasting. How did IGMP Play major role in multicasting Applications. | CO6 | 20 |
|  |  |  |  |  |
| 5. |  | Describe the following:  i.Telnet and R-login ii. NFS | CO1 | 20 |
| (OR) | | | | |
| 6. | a. | Describe in detail the operations of SMTP protocol. | CO1 | 10 |
|  | b. | Discuss about the working principle of BOOTP Protocol. | CO1 | 10 |
|  |  |  |  |  |
| 7. | a. | Describe in detail the LDP messages along with packet formats and working functionalities. | CO5 | 12 |
|  | b. | Write short note on Loop detection and control. | CO5 | 8 |
| (OR) | | | | |
| 8. |  | Describe the following,  i. MPLS and ATM ii. MPLS and Frame Relay networks. | CO4 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Demonstrate the working principles of the following:  i. ARP operations ii. Proxy ARP iii. Gratuitous ARP | CO1 | 20 |

ALL THE BEST