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

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **17CA2025** | **Duration :** | **3hrs** |
| **Sub. Name :** | **NETWORK COMPONENTS AND TROUBLESHOOTING** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Calculate Class A, Class B and Class C IP Subnetting with examples. | CO2 | 10 |
| b. | Summarize the benefit of VLAN. | CO5 | 5 |
| c. | Explain various transmission media. | CO3 | 5 |
| (OR) | | | | |
| 2. | a. | Classify Classes of IP Addresses. | CO3 | 5 |
| b. | Explain the need for Subnet mask. | CO5 | 5 |
| c. | Illustrate five Internet Control Message Protocol (ICMP) Error messages with identification parameters. | CO6 | 10 |
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| 3. | a. | Describe Static Routing and Dynamic Routing with example. | CO4 | 10 |
| b. | Distinguish Classless and Classful Routing protocol with example. | CO1 | 10 |
| (OR) | | | | |
| 4. |  | Classify the difference between RIPv1 and RIP v2 with suitable diagram. | CO4 | 20 |
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| 5. |  | Illustrate Open Shortest Path First (OSPF) Protocol. | CO1 | 20 |
| (OR) | | | | |
| 6. | a. | Illustrate Hybrid Routing protocol. | CO3 | 10 |
| b. | Enumerate EIGRP protocol. | CO5 | 10 |
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| 7. | a. | Explain the filtering methods. | CO2 | 10 |
| b. | Illustrate automatic IP Assignment process through Dynamic Host Configuration Protocol (DHCP). | CO2 | 10 |
| (OR) | | | | |
| 8. | a. | Discuss the need for Network Address Translation (NAT) and Port Address Translation (PAT). | CO1 | 10 |
| b. | Observe the advantage of DHCP Relay configuration. | CO4 | 10 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | Illustrate protocol analysis and its benefits. | CO6 | 10 |
| b. | Explain protocol structure of Internet Protocol (IP) and Domain Name Servers (DNS). | CO6 | 10 |