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



**End Semester Examination – Nov / Dec – 2019**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **17CA3003** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF NETWORK SECURITY** | **Max. Marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Discuss four layers of TCP/IP in detail with suitable diagram. | CO1 | 20 |
| **(OR)** | | | | |
| 2. | a. | Write a note on the following:   1. Frames 2. Packets 3. Segments. | CO2 | 3  3  4 |
| b. | Explain Single word Class A IP Address, Class B IP Address, Class C IP Address with an example each. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | Write a detailed note on Twisted pair cable with colour coding and its usage. | CO3 | 15 |
| b. | Draw Ethernet frame structure. | CO3 | 5 |
| **(OR)** | | | | |
| 4. | a. | Differentiate between Hub and Switch. | CO3 | 10 |
| b. | State the importance of MAC address. | CO3 | 10 |
|  |  |  |  |  |
| 5. |  | Explain the Link State Algorithm by using OSPF with a three router topology. | CO6 | 20 |
| **(OR)** | | | | |
| 6. | a. | Explain Distant Vector algorithm by using RIPv1. | CO4 | 15 |
| b. | Write a note on Basic Router Configuration. | CO6 | 5 |
|  |  |  |  |  |
| 7. | a. | Discuss the purpose of UDP with example. | CO6 | 10 |
| b. | Discuss briefly the Internet Applications. | CO5 | 10 |
| **(OR)** | | | | |
| 8. |  | Describe FTP login session and data transfer in detail. | CO6 | 20 |
|  | | **Compulsory**: |  |  |
| 9. |  | Explain the following with example:   1. Encryption 2. Hashing 3. Authentication 4. Authorization. | CO5 | 5  5  5  5 |