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

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

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| **Code :** | **14CS2027** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTERNET ROUTING ARCHITECTURE** | **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. | Describe how the Internet evolved from laboratories into network of networks. | CO1 | 10 |
| b. | Describe the NSFNET solicitation for routing administration. | CO1 | 10 |
| (OR) | | | | |
| 2. |  | Elaborate on the different services and technical characteristics offered by Internet Service Provider. | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | Create an addressing scheme that meets the requirements shown in the diagram using variable length subnet masking (VLSM). | CO1 | 10 |
| b. | Describe the steps involved in basic routing for exchanging traffic between end stations. | CO2 | 10 |
| (OR) | | | | |
| 4. |  | Explain the working of BGP with its message header format and different message types. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Describe any five BGP path attributes that are part of BGP UPDATE message with example. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Discuss how redundancy, symmetry and load balancing can be ensured for single-homing and multi-homing networks with single and multiple providers. | CO2 | 20 |
|  |  |  |  |
| 7. | a. | Discuss the BGP tools for building core stability on the Internet. | CO3 | 10 |
| b. | Explain how policy routing is followed for controlling the flow of traffic with example. | CO3 | 10 |
| (OR) | | | | |
| 8. |  | Illustrate the methods by which large scale autonomous system can be managed with examples. | CO3 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain and apply the configuration of all the router’s to establish BGP peering sessions for the below given network topology. Use OSPF as an IGP to establish the required underlying connectivity internally. | CO3 | 15 |
| b. | Demonstrate the configuration of any two BGP attributes that can be configured on the routers for the above given network topology. | CO3 | 5 |