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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14CS2027** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTERNET ROUTING ARCHITECTURE** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | Marks |
| 1. | a. | Explain in detail the origin and the evolution of Internet. | CO1 | 10 |
| b. | Describe the routing administration followed to promote stability and manageability of networks. | CO2 | 10 |
| (OR) | | | | |
| 2. | a. | Elaborate on the different services and technical characteristics offered by Internet Service Provider. | CO1 | 12 |
| b. | Discuss IPv4 and IPv6 addressing. | CO1 | 8 |
| 3. | a. | Compare and contrast Distance vector and Link state routing protocols. | CO2 | 8 |
|  | b. | Discuss the ways by which the segregating the worlds in Autonomous system results in a more manageable networks. | CO1 | 12 |
| (OR) | | | | |
| 4. |  | Explain the working of BGP with its message header format and different message types. | CO2 | 20 |
| 5. |  | What are the four categories of BGP path attributes? Discuss each of these attributes that are part of BGP UPDATE message for controlling BGP routes. | CO3 | 20 |
| (OR) | | | | |
| 6. |  | Discuss designing redundancy, symmetry and load balancing for single-homing and multi-homing scenario. | CO1 | 20 |
| 7. |  | Explain the factors that lead to route instability and describe the BGP mechanism to build stability on the Internet? | CO2 | 20 |
| (OR) | | | | |
| 8. | a. | Describe how to avoid routing loops when BGP policies conflict with internal defaults. | CO3 | 8 |
|  | b. | Illustrate the methods by which large scale autonomous system can be managed with examples. | CO2 | 12 |
| 9. | a. | Explain and write the configuration to establish BGP peering with an example topology. | CO3 | 12 |
|  | b. | Write the configuration for route filtering with example. | CO3 | 8 |

ALL THE BEST