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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

**Supplementary Examination – June – 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14EC2042** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ROUTING ALGORITHMS FOR WIRELESS MOBILE NETWORKS** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. | a. | Describe any proactive protocol with diagram. | CO2 | 10 |
| b. | Explain Geometric routing. | CO2 | 10 |
| (OR) | | | | |
| 2. | a. | Compare OSI and TCP/IP models. | CO1 | 8 |
| b. | Narrate the challenges involved in MANET. | C02 | 6 |
| c. | Develop a connected dominating set. | CO2 | 6 |
| 3. | a. | Calculate the number of multicast trees that can be formed with G multicast groups and S sources present in each group of a tree based network. | CO2 | 3 |
|  | b. | Design an example with Delaunay triangulation method. | CO3 | 10 |
|  | c. | Interpret share based routing and source based routing with diagrams. | CO1 | 7 |
| (OR) | | | | |
| 4. | a. | Enumerate Tree based routing with an example. | CO3 | 10 |
|  | b. | Design a state diagram and explain the properties of self organized network. | CO3 | 10 |
| 5. | a. | Describe any Mesh based routing protocol with diagram. | CO3 | 10 |
|  | b. | Explain energy efficient routing with an example. | CO3 | 10 |
| (OR) | | | | |
| 6. | a. | Illustrate how a Hybrid Wireless Network operates. | CO2 | 10 |
|  | b. | Enumerate Ring Geometry with diagram. | CO3 | 5 |
|  | c. | Draw the flowchart for load balancing. | CO2 | 5 |
| 7. | a. | Narrate the challenges involved in Graphs-Subgraphs-topology. | CO2 | 10 |
|  | b. | Enumerate neighbor based clustering algorithm with an example. | CO3 | 10 |
| (OR) | | | | |
| 8. | a. | Explain planar and non planar graphs with examples. | CO1 | 10 |
|  | b. | Describe any clustering approach routing protocol with diagram. | CO3 | 10 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Design a directed graph and elaborate the working. | CO3 | 10 |
|  | b. | Enumerate RNG-LMST- DLEDSR. | CO2 | 10 |

ALL THE BEST