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



**End Semester Examination – Nov/Dec– 2017**

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| **Code :** | **14CS2014** | **Duration :** | **3hrs** |
| **Sub. Name :** | **AD HOC NETWORKS** | **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. | With neat sketch, explain the different types of mobile host movements that can affect the validity of routes. | CO1 | 10 |
| b. | Differentiate Adhoc network and Wireless Sensor Network. List the types of sensors used in wireless sensor network and mention the technical challenges behind the realization of wireless sensor network. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Briefly explain about smart batteries and its characteristics. | CO1 | 6 |
| b. | State the need of adhoc MAC protocol. With neat sketch, discuss the problems in Adhoc Channel access. | CO1 | 14 |
|  |  |  |  |  |
| 3. | a. | Describe the functioning of AODV routing protocol with neat diagrams. | CO2 | 12 |
|  | b. | Differentiate between the different types of adhoc routing protocols with examples. | CO2 | 8 |
| (OR) | | | | |
| 4. | a. | In an adhoc network, each node’s transmission range is 500m in diameter, beaconing interval is once in every 10sec and migrating speed is 2 m/s. Find Associativity threshold. | CO2 | 3 |
|  | b. | With neat sketches, explain the different phases in ABR routing protocol. | CO2 | 14 |
|  | c. | Mention the different sub-protocols involved in ZRP. | CO2 | 3 |
|  |  |  |  |  |
| 5. | a. | Explain the impact of packet size, route length and beaconing interval on end-to-end delay performance and route reconfiguration time in adhoc network. | CO2 | 10 |
|  | b. | Differentiate TCPReno and TCP SACK. | CO3 | 10 |
| (OR) | | | | |
| 6. | a. | List the different parameters used to evaluate the communication performance in Adhoc network and mention its variations with respect to route length. | CO2 | 6 |
|  | b. | Discuss various problems faced by TCP in Wireless Last-Hop. | CO3 | 10 |
|  | c. | If source can reach the destination in 8 hops and processing delay at every intermediate node is 2ms. Find the end-to-end delay and round-trip-time. | CO2 | 4 |
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| 7. |  | Write short notes on   1. Location based multicast routing protocol 2. DVMRP Multicast routing protocol. | CO2 | 10+10 |
| (OR) | | | | |
| 8. | a. | List the classification of adhoc multicast routing protocol based on multicast delivery structures. | CO2 | 7 |
|  | b. | Describe ODMRP and CAMP Multicast routing protocols in Adhoc Network. | CO2 | 13 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | Sketch neatly and explain the functioning of various components in ABAM adhoc multicasting. | CO2 | 14 |
|  | b. | Compare multicast routing protocols based on protocol characteristics and multicast operations. | CO2 | 6 |

ALL THE BEST