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**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

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

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

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **12EC230** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **ADHOC Networks** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Marks** |
| **PART-A(10X1=10 MARKS)** | | |
| 1. | -------------------- wireless network is self-organizing and adaptive. | (1) |
| 2. | MAC protocol is concerned with end-to-end communication. Yes/No | (1) |
| 3. | Mention the use of beaconing in wireless network. | (1) |
| 4. | Table-driven routing is also called as -----------------------------------. | (1) |
| 5. | Define packet loss. | (1) |
| 6. | List the main functions of TCP protocol. | (1) |
| 7. | How many IP addresses are required to identify a multicast group? | (1) |
| 8. | Connection through which encapsulated packets are transmitted is called ------------------ tunnel. | (1) |
| 9. | Define emulator. | (1) |
| 10. | Say one difference between cellular network and adhoc network. | (1) |

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| **PART B(5 X 3= 15 MARKS)** | | |
| 11 | Differentiate synchronous and asynchronous MAC protocol. | (3) |
| 12 | Mention the different ways of updating the routes in the wireless networks. | (3) |
| 13 | Outline the features of TCP Snoop. | (3) |
| 14 | Categorize the multicast routing protocols used for Mobile Adhoc Network. | (3) |
| 15 | What are the different metrics used to measure the performance of the real-world Adhoc network? | (3) |

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| **PART C(5 X 15= 75 MARKS)** | | | |
| 16. | a. | Write short notes on Wireless Sensor Network. | (7) |
| b. | Elaborate the different challenges faced in the real time implementation of mobile adhoc network. | (8) |
| (OR) | | | |
| 17. | With neat diagrams, explain hidden terminal and exposed-node problems in Adhoc channel access. | | (15) |
| 18. | a. | Briefly describe about smart battery and different parameters used to measure its performance. | (8) |
| b. | Write short notes on different power management techniques used in computer devices. | (7) |
| (OR) | | | |
| 19. | Explain Associativity based routing (ABR) protocol with neat diagrams. | | (15) |
| 20. | Sketch neatly and explain the impact of beaconing interval, route length and packet size on Route Discovery (RD) time and End-to-end Delay (EED). | | (15) |
| (OR) | | | |
| 21. | Discuss on the different versions of TCP used in networking. | | (15) |
| 22. | Compare multicast routing protocols in adhoc network based on protocol characteristics, multicast operations and communication performance. | | (15) |
| (OR) | | | |
| 23. | Explain Core assisted mesh protocol (CAMP) and On-demand multicast routing protocol(ODMRP) with necessary diagrams. | | (15) |
| 24. | Draw the cross-layer architecture and enhanced architecture of MobileMAN and explain each in detail. | | (15) |
| (OR) | | | |
| 25. | Write short notes on node placement, movement patterns, traffic patterns, implementation strategiesand tools used in real-world evaluation of Mobile Adhoc Networks. | | (15) |

ALL THE BEST