Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 60433

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Eighth Semester

Electronics and Communication Engineering

EC 2050/EC 804/10144 ECE 53 — MOBILE ADHOC NETWORKS

(Regulations 2008/2010)

(Common to PTEC 2050 — Mobile Adhoc Networks for BE (Part-Time) Seventh Semester – ECE – Regulations 2009)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Adhoc Network.
2. Write any two characteristics of Wireless Channel.
3. Define MAC management sublayer.
4. What is meant by synchronous protocol?
5. Differentiate proactive and reactive protocol.
6. What are the advantages of hierarchical routing protocol?
7. List the objectives of transport layer protocol.
8. Why does TCP-F provide a simple feedback bused solution?
9. What is the need for cross layer design?
10. Differentiate 4G from 3G networks.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Differentiate between cellular Network and AdHoc Network. (10)

(ii) What is replay attack? How it can be prevented? (6)

Or

(b) (i) List out the major advantages of adhoc wire less Internet. (6)

(ii) Discuss the Pros and Cons of a routing Protocol that uses GPS Information for an Ad hoc wireless Network for search and rescue operation. (10)

12. (a) Explain in detail about contention based protocols with reservation. (16)

Or

(b) Describe IEEE Standards 802.15 in detail. (16)

13. (a) (i) Discuss the major challenges that a routing protocol designed for adhoc wireless networks faces. (10)

(ii) Discuss the types of adhoc network routing protocols based on routing information update mechanism. (6)

Or

(b) (i) List the characteristics of ideal routing protocol for adhoc wireless network. (10)

(ii) Classify and explain adhoc wirelss networks based on routing topology. (6)

14. (a) Explain why TCP is not able to perform well in Adhoc wireless network. (16)

Or

(b) List out the issue of transport layer protocol design for Adhoc wireless networks. (16)

15. (a) How the cross layer techniques optimize the routing in adhoc networks? (16)

Or

(b) What is the need to integrate ad hoc networks with mobile IP? Explain. (16)