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## Question Paper Code: 50457

## B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

Eighth Semester
Electronics and Communication Engineering
EC6802 – WIRELESS NETWORKS
(Regulations 2013)

Time: Three Hours

Maximum: 100 Marks

## Answer ALL questions

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 $(10\times2=20 \text{ Marks})$ 

1. State the MAC management functions.

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- 2. What is the functionality L2CAP? List the different types of logical channels.
- 3. When the agent solicitation message has to be sent by mobile node?
- 4. Why is routing in multi-hop ad -hoc networks complicated?
- 5. What is the need for I-TCP?
- 6. Define fast recovery.
- 7. How is isolation between users in the downlink accomplished in a WCDMA system?
- 8. What is meant by firewall?
- 9. List some of the applications of 4G system.
- 10. What is cognitive radio?

PART - B

 $(5\times16=80 \text{ Marks})$ 

11. a) Explain in detail about the IEEE 802.11 protocol architecture and bridging with other networks.

(OR)

b) Define HiperLan-2. Discuss about the various operation modes and protocol stack in HiperLan-2.



12. a) Explain how tunneling works in general and especially for mobile IP using IP in IP, minimal and generic routing encapsulation respectively. Discuss the advantages and disadvantages of these three methods.

(OR)

- b) How does dynamic source routing handle routing? What is the motivation behind dynamic source routing compared to other routing algorithms for fixed networks?
- 13. a) Describe the basic concepts of congestion control. What are the implications on mobility in traditional TCP?

(OR)

- b) What is meant by snooping TCP? Explain in detail about the basic concepts of TCP over 2.5/3.G wireless networks.
- 14. a) Discuss the role of the Access Link Control Application Part (ALCAP) in the UMTS.

(OR)

- b) Discuss two evolution paths for the GSM to offer 3G services.
- 15. a) What is a Multi-Input-Multi-Output (MIMO) system? Explain in detail.

  (OR)
  - b) Describe the basic concepts of Adaptive Modulation and Coding Time-Slot Scheduler.