6. Explain Linux Operating System. What is the difference between Unix and Linux ? Which one is best and why ? What are the basic components of Linux ? What are the kinds of permissions under Linux ? How do you change permissions and access partitions under Linux ?

15

Unit IV

7. Describe the various routing algorithms of MANET. What are the security threats to a MANET ? Why does a MANET face greater security theats than a fixed infrastructure network ? Why is routing in multihop ad-hoc network complicated, what are the special challenges ? **15**

8. Write technical note on any *two* of the following : **15**

  (a) Information dissemination in VANET

  (b) Vehicular mobility modelling for VANET

  (c) Optimization algorithm.

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M. Tech. EXAMINATION, Dec. 2017

(Second Semester)

(B. Scheme) (Re-appear Only)

ECE/Industry Integrated

MTEC-526-B

COMMUNICATION NETWORK

Time : 3 *Hours*]   [*Maximum Marks :* 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) What do you mean by Network Topology ? Explain the difference between the Topology and Star Topology. Give their advantages and disadvantages.

7½

(b) What do you mean by DQDB ? Which type of physical topology is used by DQDB ? Describe frame format of DQDB ? **7½**

2. (a) Explain the mechanism of free space propagation model. **7½**

(b) Describe the multipath characteristics of radio wave propagation ? Describe the factors which influence the small scale fading in radio wave propagation ? **7½**

Unit II

3. What are the different protocols used in GSM ? Explain the protocol architecture in GMS. Explain, how hand-off takes place in GSM ? What are the problem associated with hand-off in GSM ? Explain the different types of hand-off encountered in GSM. **15**

4. (a) What are the general of Mobile IP regarding security and support of QoS ? **7½**

(b) How can DHCP be used for mobility and support of Mobile IP ? **7½**

Unit III

5. Explain the reasons for communication asymmetry in mobile network. Give examples of asymmetric communication architecture for data dissemination ? Describe pull based data delivery mechanism. What are the advantages and disadvantages of pull based data delivery ?

15