

05/05/2016

8E8104

Roll No. _____

[Total No. of Pages : 2]

8E8104

B.Tech. VIII Semester (Main) Examination, April/May 2016

Electronic Instrumentation & Control Engg.

8EI4.1A Wireless Communication

Time : 3 Hours

Maximum Marks : 80

Min. Passing Marks : 24

Instructions to Candidates:

*Attempt any **five** questions, selecting one question from **each unit**. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly).*

Units of quantities used/calculated must be stated clearly.

Unit - I

1. a) Explain the basic Radar system in detail (8)
- b) Derive the radar range equation (8)

OR

1. a) Discuss the functioning of moving target indicator Radar. (8)
- b) Explain pulse Doppler Radar (8)

Unit - II

2. a) What is fading? Explain the flat & selective fading (8)
- b) Explain the concept of spread spectrum with general model of spread spectrum (8)

OR

2. a) Explain the direct sequence spread spectrum transmitter & receiver with example (8)
- b) Discuss frequency hopped spread spectrum signals (8)

Unit - III

3. a) Explain the steps involved in design of TDMA time slot (8)
- b) Discuss the of DM in detail (8)

OR

3. Write technical note on following

- a) Power control in CDMA
- b) Rake receiver

(8)

(8)

Unit - IV

4. a) Explain the GSM network architecture in detail
- b) Differentiate between hard & soft hand off

(10)

(6)

OR

4. Write short notes on following

- a) Cardless system
- b) Blue tooth
- c) Wi-max
- d) Mobile IP

(4×4=16)

Unit - V

5. a) Explain the effects of orbital inclination in satellite communication
- b) What is Azimuth & elevation angles explain

(8)

(8)

OR

5. Write technical note on:-

- a) Geostationary orbit
- b) Up and down converter

(8× 2=16)