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

Question Paper Code: 46402

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Sixth Semester

Electronics and Communication Engineering

14UEC602 - WIRELESS COMMUNICATION SYSTEMS

(Regulation 2014)

Duration: 1:15hrs Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The first cellular systems were

   (a) analog (b) digital (c) semi analog (d) None of these

2. Wireless communication is started in

   (a) 1869 (b) 1895. (c) 1879 (d) 1885.

3. Fading of the received radio signals in a mobile communication environment occurs because of

   (a) Direct propagation (b) Multipath Propagation
   (c) Bi-path Propagation (d) None of these

4. Link budget consists of calculation of

   (a) Useful signal power (b) Interfering noise power
   (c) Both (a) and (b) (d) None of these

5. QPSK is a composite of

   (a) Two BPSK (b) Three BPSK
   (c) Two FSK (d) Two M-ary PSK

6. If Gray encoded input debit is 11 then the phase 9 QPSK signal is?

(a) $\pi/4$ (b) $3\pi/4$ (c) $5\pi/4$ (d) $7\pi/4$

7. Diversity technique

(a) Provides significant link improvement

(b) Needs training overhead

(c) Both (a) and (b)

(d) None of these

8. The technique for combining diversity signals are

(a) Feedback (b) Maximal ratio

(c) Equal gain (d) All the above

9. _____ are typically characterized by very small cells, especially in densely populated areas.

(a) 2G system (b) 3G system

(c) 2.5G System (d) 3.5G system

10. GSM is the accepted cellular standard in

(a) Europe (b) South America

(c) Southeast Asia (d) All the above

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Discuss briefly about the requirements of services for a wireless system. (8)

12. Explain the three basic propagation mechanisms in a mobile communication system. (8)

13. How MSK signals are generated. Explain in detail. (8)

14. Explain in detail about:

(i) Linear equalizers. (8)

15. Explain the Code Division Multiple Access and compare its performance with TDMA. (8)