

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 36402

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

Sixth Semester

Electronics and Communication Engineering

01UEC602 - WIRELESS COMMUNICATION SYSTEMS

(Regulation 2013)

Duration: 1:15hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

- The first cellular systems were
 - analog
 - digital
 - semi analog
 - None of these
- Wireless communication is started in
 - 1869
 - 1895.
 - 1879
 - 1885.
- Fading of the received radio signals in a mobile communication environment occurs because of
 - Direct propagation
 - Multipath Propagation
 - Bi-path Propagation
 - None of these
- Link budget consists of calculation of
 - Useful signal power
 - Interfering noise power
 - Both (a) and (b)
 - None of these
- QPSK is a composite of
 - Two BPSK
 - Three BPSK
 - Two FSK
 - Two M-ary PSK
- If Gray encoded input debit is 11 then the phase 9 QPSK signal is?
 - $\pi/4$
 - $3\pi/4$
 - $5\pi/4$
 - $7\pi/4$

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. Explain the principle of cellular networks and various types of Handoff techniques. (8)
12. Describe the time variant two ray model of a wireless propagation channel. (8)
13. Explain with neat diagram about Quadrature Phase Shift Keying (QPSK) based transmission and reception technique. (8)
14. Explain with diagram, the different techniques available for signal combining. (8)
15. Compare and contrast 2G, 3G and 4G wireless network standards with its merits and demerits. (8)