

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May 2017

M.Tech. II Semester

COURSE CODE: 10M11EC212

MAX. MARKS:35

COURSE NAME: Advance Wireless & Mobile Communication

COURSE CREDITS: 03

MAX. TIME: 2 Hrs

*Note: All questions are compulsory and carry equal marks. Carrying of mobile phone during examinations will be treated as case of unfair means.*

Q.1 Answer the following questions :

- a) What is Duplex spacing in GSM?
- b) Why we use small cell for Wireless Communication?
- c) Why we prefer half rate traffic channel over full rate traffic channel?
- d) How synchronization is achieved in GSM network?
- e) What is the difference between Duplexer and Diplexer?

Q.2 Explain the PSTN to Mobile originating call flow in GSM system.

Q.3 How we can use MRC technique to improve SNR in Wireless Communication System? Justify your answer.

Q.4 Explain the role of different control channels used in GSM System with suitable diagram.

Q.5 What is ZERO Forcing Receiver in MIMO system? What are the advantages of MIMO System?

Q.6 Explain the working of Multi carrier modulation scheme. What are the key benefits of this Modulation scheme?

Q.7 How the BER is affecting the performance of Wireless Communication System? For Wire line Communication system received SNR is 10dB find BER. Also find the number of error bits if we transmit 10,000 bits.