

**M. TECH.-II (ELECTRONICS V.L.S.I.) (CBCS – 2015
COURSE) : WINTER - 2017
SUBJECT: WIRELESS NETWORKS**

Day: **Thursday**
Date: **30/11/2017**

Time: **11.00 AM TO 02.00 PM**
Max Marks: 60

W-2017-2811

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the indicate **FULL** marks.
 - 3) Answer the both sections in **SEPARATE** answer books.
 - 4) Assume suitable data, if necessary.
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SECTION-I

Q.1 What is diversity reception? How can it be used to combat multipath? Explain. (10)

OR

Q.1 Describe in detail multipath effects in mobile communication. (10)

Q.2 What should be a relationship between call arrival rate and service rate when a cellular system is in a steady state? Explain clearly. (10)

OR

Q.2 What is need of frequency reuse? Explain the frequency reuse concept in detail. (10)

Q.3 Explain the time diversity techniques of DSSS and the RAKE receiver. (10)

OR

Q.3 Explain different features of forward CDMA channels and reverse CDMA channels. (10)

SECTION-II

Q.4 Explain the steps involved in location update procedure in detail. (10)

OR

Q.4 Explain GSM architecture with neat diagram. (10)

Q.5 Write short notes on: (10)

- a) MIMO diversity – OSTBC
- b) MIMO beam forming – MRT

OR

Q.5 Explain MIMO and MIMO channel capacity. (10)

Q.6 Write short notes on: (10)

- a) Wi-Max
- b) WCDMA

OR

Q.6 Explain in detail GPRS with suitable diagram. (10)

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