## PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

# MSc DEGREE EXAMINATION MAY 2018 (Second Semester)

#### Branch - APPLIED ELECTRONICS

#### WIRELESS COMMUNICATION SYSTEMS

Time: Three Hours Maximum; 75 Marks

## SECTION -A (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks ( $5 \times 6 = 30$ )

1 a Give an account on examples of wireless communication systems.

OR

- b Describe the evolution of mobile radio communications.
- 2 a Elucidate the frequency reuse concept.

OR

- b Narrate the CDMA technology used in mobile.
- 3 a Enumerate about he radio resource management.

OR

- b Explain how transmission is happening in GSM architecture.
- 4 a Briefly explain UMTS network protocol architecture.

OR

- b Describe the handover network protocol architecture.
- 5 a Enumerate channel acquisition in WiMAX.

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b Narrate security in WiMAX networks.

### SECTION -B (45 Marks)

Answer any THREE questions
ALL questions carry EQUAL Marks (3 x 15 = 45)

- 6 Elucidate the 2<sup>nd</sup> generation cellular networks.
- 7 Describe how will you improving coverage and capacity in cellular systems.
- 8 Draw the blocks of GSM architecture and explain.
- 9 Enumerate about the interfaces and channels in UMTS.
- 10 Give an account on MAC layer.