

SUBJECT : WIRELESS NETWORKS

Day : Tuesday
Date : 11/06/2019

S-2019-3408

Time 11.00 AM TO 02.00 PM
Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
 - 3) Assume suitable data if **NECESSARY**.
 - 4) Answer to both the sections should be written in **SAME** Answer book.
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SECTION – I

- Q.1** Explain the different generations of cellular system. (10)
OR
Explain the path loss model for free space propagation.
- Q.2** Explain the working principle of cellular networks in detail. (10)
OR
Explain various metrics used to decide handoff along with its strategies.
- Q.3** Explain with block diagram, the function of RAKE receiver. (10)
OR
Briefly explain the spread spectrum modulation techniques: FHSS and DSSS.

SECTION - II

- Q.4** Explain in detail the architecture of the GSM system. (10)
OR
Describe in detail GSM channel concept.
- Q.5** What is the role of Eigen values to characterize the MIMO channel and explain its effect on channel capacity? (10)
OR
Explain spatially correlated channel for Massive MIMO.
- Q.6** Write a short notes on (10)
i) UWB wireless channels.
ii) LTE
OR
Explain how GPRS supports higher data rates and mobility.

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