

2031
M. E. (Information Technology)
First Semester
MEIT-1104: Advanced Wireless Technologies

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

- I. Attempt the following:-
- Define Frequency Re-use.
 - Differentiate between Bluetooth and Zigbee technologies.
 - List two major comparisons between CDMA and GSM.
 - Describe TDMA in brief.
 - Give the principle of Cognitive Radios. (5x2)

UNIT – I

- II. Discuss the evolution of wireless communication systems from 2G to 5G. How has data rate and speed improved from 2G to 2.5G to 3G to 4G to 5G? (10)
- III. What do you understand by hand-off in wireless communication? Discuss the different types of hand-off strategies, highlighting their characteristics, advantages and disadvantages. (10)
- IV. Give the structure of a GSM network. Explain each block in detail. (10)

UNIT – II

- V. What do you understand by multiple access in wireless communication? Describe FDMA and SSMA multiple access techniques. (10)
- VI. How does Bluetooth work? Explain LTE and LTE-A standard laying emphasis on its features, characteristics and applications. (10)
- VII. Explain Internet of Things in detail. Describe its protocols. (10)

x-x-x