

2023
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:-

- (a) What are the advantages of using 5G?
- (b) Compare Cognitive radio networks with IOT.
- (c) Describe SDMA in brief.
- (d) Discuss briefly about the security aspects of CDMA.
- (e) What is the role of LTE-A in advanced wireless technologies? (5x2)

UNIT - I

- II. What is an intelligent network? Discuss how the evolution of various wireless communication systems from 2G to 5G takes place. (10)
- III. a) Explain the concept of microcell zone. Compare it with cell sectoring.
b) Explain handoff. Explain the factors which must be taken into account before attempting handoff. (2x5)
- IV. a) Briefly describe the different channel assignment strategies used in cellular mobile communication systems.
b) Give comparison of GSM and CDMA. Which one is more preferred and why? (2x5)

UNIT - II

- V. What is FDMA? Compare TDMA and SSMA multiple access techniques. (10)
- VI. Explain the role of WiFi and WiMax advanced wireless technologies. How these are different in terms of features, specification and applications from Zigbee. (10)
- VII. a) Explain different protocols of Internet of Things.
b) Explain the architecture of Wireless sensor networks. Explain various applications based on wireless sensor networks. (2x5)

x-x-x