

**S.Y.B.Sc. (Computer Science) Electronics**  
**Semester IV Examination**  
**USCSEL-242 Wireless Communication and IoT**

**Time: 2:00 Hours]**

**[Marks: 35**

**Instructions to candidate:**

1. All questions are compulsory.
2. Draw neat labeled diagrams wherever necessary
3. Figure to the right indicate full marks

**Q.1 Answer any FIVE of the following**

**[5X1=5]**

- a) What is the responsibility of MSC in cellular telephone system?
- b) What is handoff?
- c) State two advantages of GPS
- d) What are the types of RFID?
- e) What is payload in Bluetooth system?
- f) State the different components of M2M architecture.
- g) Give full form of LPLAN and LPWAN.

**Q.2 Answer any FIVE of the following. (Short answers)**

**[5X3=15]**

- a) Why square or circular shape cell is not suitable for the cellular network?
- b) Explain the concept of frequency reuse .How frequency reuse distance is calculated? .
- c) Which smart applications are normally considered in smart city?
- d) State and explain atleast three zigbee topologies.
- e) Explain the concept of scatternet with neat diagram.
- f) What are the advantages of using Cloud in IOT?
- g) Write a note on Physical and Link layer protocol in IOT.

**Q.3 Answer any THREE questions of the following. (descriptive answers) [3X5=15]**

- a) Compare LORAWAN and Sigfox technologies.
- b) Write application domains of IOT.
- c) Explain three service models of cloud access.
- d) Compare Bluetooth and Zigbee.
- e) Explain CDMA and TDMA in brief.

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