

# Question Paper

Exam Date & Time: 12-Feb-2021 (10:00 AM - 01:15 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL SCHOOL OF INFORMATION SCIENCES, MANIPAL  
FIRST SEMESTER MASTER OF ENGINEERING - ME (EMBEDDED SYSTEMS / AUTOMOTIVE EMBEDDED SYSTEMS)  
DEGREE EXAMINATION - FEBRUARY 2021

Internet of Things [IOT-607]

Marks: 100

Duration: 180 mins.

FRIDAY, FEBRUARY 12, 2021

Answer all the questions.

- 1) Discuss different Levels in IoT. (TLO 1.1) (10 Marks) (10)
- 2) Explain WebSocket based communication models in IoT. (TLO 1.1) (10 Marks) (10)
- 3) Illustrate IoT Design Methodology with block diagram. (TLO 1.1) (10 Marks) (10)
- 4) What is Socket? Explain Server Socket Method and Client Socket Methods. (TLO 3.1) (10 Marks) (10)
- 5) A. What is 6LoWPAN? Write the features of 6LoWPAN technology. (TLO 2.3) (5 Marks) (10)  
B. Compare IPv6 with IPv4 network protocol. (TLO 2.3) (5 Marks)
- 6) Discuss the importance of Database system. Explain how to create a database and access, update and delete data from database. (TLO 3.2) (10 Marks) (10)
- 7) Illustrate different Addressing Types and Link Types in Bluetooth. (TLO 2.1) (10 Marks) (10)
- 8) Explain the iterative and control statements in Python with example. (TLO 1.2) (10 Marks) (10)
- 9) Briefly describe ZigBee protocol stack architecture with suitable diagram. (TLO 2.2) (10 Marks) (10)
- 10) Explain the design challenges in WSN. Discuss Sensor - MAC (S - MAC) protocol. (TLO 1.3) (10 Marks) (10)

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