

Question Paper



MANIPAL UNIVERSITY

**SCHOOL OF INFORMATION SCIENCES
FIRST SEMESTER MASTER OF ENGINEERING - ME (EMBEDDED SYSTEMS) /
(EMBEDDED SYSTEMS AND INSTRUMENTATION)
DEGREE EXAMINATION - NOVEMBER 2017
DATE : Thursday, November 16, 2017
TIME : 10:00AM - 1:00PM
Internet of Things [ESD 615.9]**

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Discuss different application layer protocol in IoT. (10)
- 2) Describe the functional block in IoT (10)
- 3) Write a short note on WebSocket-based communication API (10)
- 4) What are the difference between Machines in M2M and Things in IoT? (10)
- 5) Explain with a neat diagram (10)
 - A. SDN architecture
 - B. NFV architecture
- 6) Explain file handling concept in Python. (10)
- 7) What is Socket? Explain Server Socket Method and Client Socket Methods in Python. (10)
- 8) Explain Bluetooth state machine. (10)
- 9) Briefly describe the functions of various layers of ZigBee protocol stack architecture with suitable diagram (10)
- 10) Explain the main design objectives considered in the design of sensor networks. Discuss LEACH Protocol (10)

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