

# Question Paper

Exam Date & Time: 23-Apr-2018 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**SCHOOL OF INFORMATION SCIENCE (SOIS)**  
**SECOND SEMESTER Master of Engineering - ME (Embedded & Wireless Technology)**

**DEGREE EXAMINATION - APRIL 2018**

**Monday, 23 April 2018**

**Time : 10:00 am to 1:00 pm**

**IoT Architecture and Networking [EWT 618]**

**Marks: 100**

**Duration: 180 mins.**

### Answer all the questions.

- 1) With neat examples and diagram, explain a) SPIN b) LEACH (10)  
(5+5)
- 2) A. With a neat diagram, explain a) Centroid localization b) (10)  
Weighted centroid localization. (2+3)  
B. What do mean by coarse grained and fine grained  
localization. Explain the significance. (5)
- 3) List and explain the Key Design Challenges of an Wireless (10)  
Sensor Networks.
- 4) With neat diagrams, explain a) IOT LEVEL - 3 b) IOT LEVEL - (10)  
4 (5+5)
- 5) With a neat diagram explain the IOT protocol structure. (10)
- 6) Explain briefly a) HTTP b) COAP c) WebSocket (10)  
(3+4+3)
- 7) With a neat diagram, explain a) Request - Response Model (10)  
b) Publish-Subscribe model. (5+5)
- 8) On what key questions, the localization issues and (10)  
techniques are classified. List and Discuss.
- 9) Explain a) Reliable Message Transmission b) Unreliable (10)  
Message Transmission with respect to COAP. (5+5)
- 10) What is RSSI? Write a neat program to measure the RSSI (10)  
value of a node in CONTIKI COOJA. (3+7)

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