Registration No:

<u>**M.TECH**</u>
P2CTCC12

2nd Semester Regular Examination 2016-17
Wireless Sensor Network.
BRANCH: COMPUTER ENGG, COMPUTER SCIENCE, COMPUTER SCIENCE AND ENGG, COMPUTER SCIENCE AND TECH.
Time: 3 Hours
Max Marks Z984: 100
Q.CODE: Z984
Answer Question No.1 which is compulsory and any FOUR from the rest.
The figures in the right hand margin indicate marks.

Q1   Answer the following questions: *Short answer type*   **(2 x 10)**
   a) Draw the diagram of a WSN network having clustered technology.
   b) What is sink node?
   c) What is the role of a Agent in WSN?
   d) Why multi-hop wireless communication is required for WSN?
   e) Differentiate address centric paradigm and data centric paradigm
   f) What is the difference between range based and Range free localization algorithm?
   g) What is the use of MAC in Wireless sensor network?
   h) What are some of the problems in data centric storage in WSN?
   i) What is the benefit of using multipath routing in WSN?
   j) What do you meant by source based Tree protocol?

Q2 **a)** Why clustered architecture is specially useful for sensor network?   **(10)**
   b) Discuss the design principles for Wireless Sensor Networks.   **(10)**

Q3 **a)** What are the effective parameters for maximizing network lifetime, Describe?   **(10)**
   b) Explain sleep scheduled technique in WSN.   **(10)**

Q4 **a)** Explain Three distinct component of localization system.   **(10)**
   b) What are the challenges in clock synchronization in WSN.   **(10)**

Q5 **a)** Explain the characteristics' of localization algorithm.   **(10)**
   b) Explain different congestion type in WSN.   **(10)**

Q6 **a)** Explain set k- cover algorithm for energy efficient monitoring in WSN.   **(10)**
   b) Describe Geographic routing techniques in WSN.   **(10)**

Q7 **a)** Explain the topology issues in WSN.   **(10)**
   b) Explain about energy consumption of sensor nodes in detail.   **(10)**