

(03 hours )

**Total marks: 80**

Note: 1. Q.1 is compulsory  
2. Attempt any 3 from remaining  
3. Assume suitable data if necessary.

- Q1. A) Discuss in detail the examples of C1 WSN and C2 WSN applications. [10]  
B) Discuss and explain in detail single node architecture for WSN with neat diagram. [10]
- Q2. A) Explain in detail LEACH protocol. [10]  
B) Explain in detail Low duty cycle protocols and wakeup concepts? [10]
- Q3. A) Explain in detail ZigBee std in WSN. [10]  
B) Explain in detail TRAMA protocol. [10]
- Q4. A) Explain in detail IEEE 802.15.4 MAC protocol. [10]  
B) List and explain routing challenges and design issues for network layer in WSN. [10]
- Q5. A) Explain in detail Geographical Routing Protocols. [10]  
B) List and explain the different types of security attacks in WSN. [10]
- Q6. Write Short notes [20]  
a) RMST  
b) EYES OS  
c) PAMAS  
d) Differentiate between singlehop and multihop in WSN