

Roll No.

Total Pages : 03

BT-6/J-22

46170

MOBILE AD-HOC AND WIRELESS
SENSOR NETWORKS
PE-CS-S308A

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Section

Section I

1. (a) What are the security threats in a MANET ? What are the factors responsible for limited security in MANETs ? 10
- (b) For every layer of MANET protocol stack, show at least one type of security attack that exploits vulnerability at that layer. 5
2. (a) List the applications of MANET. 5
- (b) For every layer of MANET protocol stack, show at least one type of security attack that exploits vulnerability at the layer. 10

Section II

3. (a) Illustrate the classification of unicast MANET Routing Protocols. 10
- (b) Explain, how multicast routing is carried out in ad-hoc networks ? 5
4. (a) Explain the functioning of destination sequenced distance vector algorithm. 7
- (b) Explain in detail the ad hoc on-demand routing protocol. 8

Section III

5. (a) Explain the concept of Self Policing MANET and Node Misbehaviour. 8
- (b) Explain the concept of secure routing and reputation systems. 7
6. (a) Explain in detail the Link layer for Ad-hoc Network Security. 7
- (b) Write about the energy efficient routing in WSN. 8

Section IV

7. (a) With required diagram explain the single node hardware and software architecture of WSN. 7

(b) Is spread spectrum modulation schemes are followed in WSN ? Justify your answer. 8

8. (a) Explain any *three* scheduled based MAC protocols of WSN. 7

(b) How localization and QoS are done in WSN ? 8