

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

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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