FACULTY OF INFORMATICS

B.E. 4/4 (IT) I - Semester (Main) Examination, November / December 2016

Subject : Ad-hoc and Sensor Networks (Elective – II)

Time : 3 Hours **Max. Marks: 75**

Note: Answer all questions from Part-A and answer any five questions from Part-B.

PART – A (25 Marks)

1 What kind of multiple access technology is suitable in (2)
   (i) Military Adhoc environment (ii) A home adhoc network environment.
2 What constitutes a Hybrid wireless Network? (2)
3 What is the functionality of Zigbee technology? (2)
4 Differentiate between practive and reactive routing protocols. (2)
5 Why conventional wired Network Internet Protocol (IP) doesn't perform well in
   Adhoc Networks? (3)
6 What are the advantages of multipath routing? (3)
7 What is resource-consumption attack? (3)
8 Explain how delay jitter and bandwidth effects the QOS in Adhoc wireless Networks. (3)
9 What are the basic components of a sensor network? (3)
10 What is overhearing in WSN? Explain. (2)

PART – B (50 Marks)

11 Describe the design issues of routing protocols for Adhoc wireless Networks. (10)

12 Explain the process of route establishment and route maintenance in wireless
   Routing protocol (WRP) with the help of an example. (10)

13 (a) What is location based routing ? Explain. (6)
   (b) What are the advantages and disadvantages of CGSR routing scheme? (4)

14 (a) Describe the key issues involved in QOS routing in adhoc networks. (5)
   (b) Explain the route optimization phase of Bandwidth efficient multicast routing
       protocol. (5)

15 Describe the layer-wise classroom of existing QOS solutions in Adhoc wireless
   Networks. (10)

16 Describe the schedule based MAC protocols for wireless sensor Networks. (10)

17 What is a wireless sensor Network? Describe the sensor Network Architectural
   elements. Give examples of WSN applications. (10)

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