

**B.TECH. SEM -VII (COMPUTER) 2014 COURSE (CBCS) : WINTER
- 2017**

SUBJECT:ELECTIVE – III : AD-HOC & SENSOR NETWORKS

Day: **Monday**
Date: **22/01/2018**

Time: **02.30 PM TO 05.30 PM**
Max Marks. **60**

W-2017-2283

N.B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assume suitable data, if necessary.

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- Q.1** a) Define Ad-hoc and sensor networks. Explain its different types. (05)
b) Explain important characteristics of ad-hoc network. (05)
OR
- Q.1** a) Draw and explain architecture of Ad-hoc network (05)
b) Explain the need of Ad-hoc networks. (05)
- Q.2** Explain different types of IEEE 802.11 standards (10)
OR
- Q.2** Explain wireless communication technology in detail. (10)
- Q.3** Explain different multicast routing protocols in detail (10)
OR
- Q.3** Explain why TCP/IP model important in ad-hoc & sensor network. (10)
- Q.4** a) What are various issues and challenges of security in ad-hoc networks? (05)
b) Explain different network security attacks in ad-hoc and sensor networks. (05)
OR
- Q.4** a) Explain TCP over ad-hoc wireless networks. (05)
b) With real life example explain the need of security in ad-hoc and sensor networks. (05)
- Q.5** Explain in detail the Energy management in ad-hoc networks. (10)
OR
- Q.5** Explain different issues and challenges in providing QoS in Ad-hoc and sensor networks. (10)
- Q.6** a) Explain with example application of Ad-hoc networks in IoT. (05)
b) Explain Arduino with example. (05)
OR
- Q.6** a) Explain any two real life applications of ad-hoc and sensor networks. (05)
b) With neat diagram explain working of Wi-Fi modem in detail. (05)

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