PVP 17

Code**: 17ECMC1T3**

I M.Tech-I Semester-Regular Examinations-February 2018

ADAPTIVE AND SMART ANTENNAS
(MICROWAVE & COMMUNICATION ENGINEERING)

Duration: 3 hours Max. Marks: 60

Answer the following questions.

1.a) Explain how SDMA is implemented using smart antennas? 8 M

b) Explain Mutual coupling effect in smart antennas. 7 M

(OR)

2.a) Explain the Architecture of a smart antenna. 8 M

b) Discuss different types of estimation methods used for DOA. 7 M

3.a) Discuss weight vectors in beam forming. 8 M

b) Explain briefly about classical beam former. 7 M

(OR)

4.a) Explain the function of a multiple side lobe canceller. 8 M

b) Explain the QUASI-Newton Algorithm. 7 M

5.a) What are the components in design of a smart antenna. 8 M

b) What are the parameters that affect a MANET due to inefficient antenna. 7 M

(OR)

6. Neatly explain the Rayleigh Fading channel. 15 M

7.a) What is Space time processing. Explain How to implement beam forming using space time process? 8 M

b) Explain DS-CDMA beam forming. 7 M

(OR)

8. Explain briefly about MIMO in wireless local area network. 15 M