PVP 12

Code: **ECMC2T4**

I M.Tech - II Semester-Regular Examinations – September 2015

EMI / EMC

(MICROWAVE & COMMUNICATION ENGINEERING)

Duration: 3 hours Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1. a) Define and explain EMI, EMC and EMS. 6 M

   b) Explain in detail the effects of EMI and propose the methods to eliminate EMI. 8 M

2. a) Explain different Noise coupling mechanisms. 7 M

   b) Explain the steps to be incorporated in designing systems for EMC. 7 M

3. a) Explain the measurement precautions to be taken in OATS. 7 M

   b) Explain EMI from power electronic systems. 7 M

4. a) Explain the pits falls in EMI measurements and suggest some steps to overcome them. 7 M

b) Write a note on TEM cell . 7 M

5. a) Describe differential mode and common mode EMI. 7 M

b) Write a note on how equipment can be designed to achieve compatibility to conducted EMI. 7 M

6. a) What is grounding? Describe Various types of grounding techniques. 7 M

b) Explain the role of isolating and neutralizing transformers 7 M

7. a) Write a note on various types of losses in shielding. 7 M

b) Write a short note on shield discontinuities slots and holes 7 M

8. a) Write a note on International EMC standards. 7 M

b) Explain the effect of EMI on the operation of transformers. 7 M