

Code: **ECMC2T4**

**I M.Tech - II Semester - Regular Examinations – AUGUST 2016**

**EMI / EMC**  
**(MICROWAVE & COMMUNICATION ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

*Answer any FIVE questions. All questions carry equal marks*

1. a) Write a note on frequency spectrum conservation. 7 M  
b) Explain different mechanisms of EMI Generation. 7 M
2. a) Differentiate between Manmade and Natural sources of EMI. 6 M  
b) Explain Electro Static Discharge (ESD) and Electromagnetic Pulse (EMP). 8 M
3. a) Explain OATS measurements. 7 M  
b) Explain the effect of non linearities in the circuits. 7 M
4. a) Explain the need for EMI measurements. 7 M  
b) Write a note on anechoic chamber. 7 M

5. a) Explain conducted EMI. 7 M
- b) Write a note on role of EMI filters. 7 M
6. a) Explain the role of isolating and neutralizing transformers. 7 M
- b) Describe the mechanism of emission and coupling in cabling. 7 M
7. a) Give the expression for effectiveness of shielding, Near and far field impedances. 7 M
- b) Write a note on characteristics of good bonds. 7 M
8. a) Give the equivalent circuit of a capacitor under EMI. 7 M
- b) Write a note on military and civilian standards of EMI. 7 M