

Code: 17ECMC1T6A

**I M.Tech-I Semester-Regular/Supplementary Examinations
December-2018**

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

Duration: 3 hours

Max. Marks: 60

Answer the following questions.

1. a) Write a brief description on Electrostatic Discharge. 8 M

b) Show how celestial bodies act as a source of EMI. 7 M

(OR)

2. a) Explain the Biological effects of Radiation. 8 M

b) Write about Lightning Discharge. 7 M

3. a) Discuss in detail Common mode coupling and differential mode coupling? 8 M

b) Explain the effects of Transient sources? 7 M

(OR)

4. a) Discuss about emissions related to cables and their Coupling. 8 M
- b) Write about Inductive and capacitive coupling. 7 M
5. a) Define the terms grounding and shielding along with their advantages. 8 M
- b) Write about the material attributes that help in shielding and explain. 7 M

(OR)

6. a) Explain how devices can be protected from surges and transients. 8 M
- b) Define Murphy's Law and discuss about Low frequency Magnetic shielding. 7 M
7. a) Explain the need to meet EMI standards. 8 M
- b) Compare FCC and CISPR conducted emission limits for Class A and Class B digital devices. 7 M

(OR)

8. a) Describe about open area test measurement for EMI and its limitations. 8 M

b) Explain how EMI testing will be done using TEM cell. 7 M