

Code No: **R42195**

R10

Set No. 1

IV B.Tech II Semester Supplementary Examinations, April - 2018

EMI/EMC

(Electronics and Computer Engineering)

Time: 3 hours

Max. Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

- 1 a) Define EMI? Explain any three practical experiences caused to EMI. [8]
b) Explain biological effects due to EMI. [7]
- 2 a) List out the sources of EMI? Explain about any one of these types. [8]
b) Draw the equivalent circuit for electrostatic discharge and explain it. [7]
- 3 a) Draw the equivalent circuit of a relay circuit and discuss the frequency of damped oscillations. [8]
b) With suitable diagram explain the measurement of RE & RS in open area Test site. [7]
- 4 a) Discuss about designing of GTEM cell. [8]
b) Explain designing and working principle of Reverberating chamber. [7]
- 5 a) Compare the measurement techniques of Open area test site, Indoor -test site and Conducted Interference. [9]
b) Explain about CM & DM mode Interferences. [6]
- 6 a) Explain the need of Grounding in circuits? Suggest the different Grounding Techniques. [8]
b) Explain the function of single rod electrode technique in grounding for EMI elimination. [7]
- 7 a) Explain the need of shielding and bonding in EMI/EMC. [8]
b) Define shielding effectiveness and wave impedance in EMC. [7]
- 8 a) Explain the need of EMI filters? Discuss about the characteristics of Filters. [8]
b) List out and explain the military standards. [7]