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Question Paper Code : X 85430

M.E./M.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020
First/Second Semester
Applied Electronics
CU 5292 – ELECTROMAGNETIC INTERFERENCE AND COMPATIBILITY
(Common to M.E. Communication Systems/M.E. Communication and
Networking/M.E. Electronics and Communication Engineering)
(Regulations 2017)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. Define specific absorption rate.
2. List the primary quantities of interest in EMC problems.
3. Define magnetic field interaction.
4. Draw the circuit diagram for common ground impedance coupling.
5. List the approaches to control EMI.
6. Write the idea captured by Murphy's law.
7. Write the purpose of EMC standards.
8. What does product standard define ?
9. Write the purpose of RS testing.
10. Define high-impedance electric field shielding.

PART – B

(5×13=65 Marks)

11. a) Draw the EMI control organization trees of intersystem and intrasystem.

(OR)

- b) The customer requirement must be interpreted and reflected in a system EMC specification. Justify this statement.



12. a) Compare conducted CM coupling and conducted DM coupling.
(OR)
b) Explain the field model and equivalent circuit of inductive coupling.
13. a) Explain the principle of grounding on the basis of earth impedance.
(OR)
b) Explain the various types of SPD.
14. a) Explain about the documents of relevance published by FCC.
(OR)
b) List the features of CISPR 11 ISM RF equipment standard.
15. a) Explain the principle of military standard test method for shielding.
(OR)
b) Explain the steps of RS measurement using TEM cell.

PART – C

(1×15=15 Marks)

16. a) Explain the schematic for RE measurement using shielded anechoic chamber.
(OR)
b) Explain the sources of inaccuracies in measurements using anechoic chamber.
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