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Question Paper Code: 99451

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2022

Open elective

Civil Engineering

19UEC951– CONSUMER ELECTRONICS

(Common to CSE, EEE, Mechanical, IT, Chemical, Agriculture and Biomedical, CSBS & Biotechnology Engineering Branches)

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

- Which one of the following suffers from high harmonic distortion CO2- U
(a) moving iron headphones (b) moving coil headphones
(c) electrostatic headphones (d) crystal headphone
- The FCC defines 100 per cent FM modulation as CO1- U
(a) + 15 kHz deviation (b) + 25 kHz deviation
(c) + 50 kHz deviation (d) + 75 kHz deviation
- In television, 4:3 represents the CO1- U
(a) interlace ratio (b) maximum horizontal deflection
(c) aspect ratio (d) ratio of the two diagonals
- The number to be dialed or called to reach a subscriber in the same local network or numbering area is CO2- U
(a) Local code (b) Area code (c) Toll access code (d) Subscriber number
- In microwave oven, the microwaves have a special property that they are absorb by CO6- U
(a) water (b) fats (c) sugar (d) all of the above

PART – B (5 x 3= 15 Marks)

6. Define the function of loud speaker and mention its frequency of operation. CO2- U
7. Differentiate between positive modulation and negative modulation CO1- U
8. Why is scanning necessary in television system? CO1- U
9. Explain the different modes of operation of telephone systems. CO2- U
10. How will you control the temperature and humidity in air conditioning? CO2- U

PART – C (5 x 16= 80Marks)

11. (a) Compare the different types of microphones with their specification. CO5- Ana (16)
Or
(b) Compare the parameters of moving-coil, ribbon, crystal, condenser and carbon microphones. Discuss applications of each type. CO5- Ana (16)
12. (a) Design a Hi-Fi audio system by applying the basic concepts of electronic circuits. CO3- App (16)
Or
(b) Design a Stereo system by applying the basic concepts of electronic circuits. CO3- App (16)
13. (a) How does the operation of a color picture tube differ from that of a monochrome picture tube? CO5- Ana (16)
Or
(b) Analyze and contrast of different television standards in detail and mention their special features. CO5- Ana (16)
14. (a) What is the advantage of transmitting telephone voice in digital form? Explain in detail about digital exchanges. CO2- U (16)
Or
(b) Mention the different types of cellular systems. Also, explain the steps involved in making a call between two mobile users. CO2- U (16)
15. (a) Explain the function of each block involved in microwave oven with block diagram. CO2- U (16)
Or
(b) Explain the various types of air conditioning system and describe its components with neat diagrams. CO2- U (16)

