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**Question Paper Code: 59471**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2024

Open elective

Civil Engineering

15UEC971 – CONSUMER ELECTRONICS

(Common to CSE, EEE, EIE, Mechanical, IT, Chemical)

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

1. The two faces in the ribbon type microphone are CO1- R  
(a) to and fro      (b) front and back      (c) forward and reverse      (d) up and down
2. In NTSC standards, the total number of equalizing pulses per field is CO2- R  
(a) 10      (b) 12      (c) 5      (d) 6
3. The standard width of a recording tape is CO3- R  
(a) 0.64 cm      (b) 0.25 cm      (c) 0.50 cm      (d) 0.65 cm
4. If a subscriber needs to provide free connections for other subscribers, it can request the CO4- R  
(a) 800 service      (b) 900 service      (c) wide-area telephone service      (d) digital data service
5. Which of the following refrigerant is widely used in domestic refrigeration? CO5- R  
(a) oxygen      (b) ammonia      (c) neon      (d) alcohol

PART – B (5 x 3= 15 Marks)

6. What are woofers and tweeters? Differentiate them. CO1-U
7. What is forward AGC? CO2- R
8. Define pinch effect and illustrate it pictorially. CO3- R
9. Explain the different modes of operation of telephone systems. CO4- R

10. Draw the basic block diagram which shows the inputs and outputs in an electronic washing machine. CO5- U

PART – C (5 x 16= 80Marks)

11. (a) Describe the working principle of loud speaker. Also explain about different types of loudspeakers based on its construction. CO1- U (16)
- Or
- (b) Explain the construction and working of moving coil microphones. Also give their characteristics. CO1- U (16)
12. (a) Describe the components used in Remote Control and discuss on use of every control option. CO2- U (16)
- Or
- (b) Explain about Dolby noise reduction and how the analog and digital signals are recorded. CO2- U (16)
13. (a) Discuss in detail on working of CD player with necessary diagrams. CO3- U (16)
- Or
- (b) Explain the various devices used to store audio information and discuss on each in detail. CO3- U (16)
14. (a) What is the advantage of transmitting telephone voice in digital form? Explain in detail about digital exchanges. CO4- U (16)
- Or
- (b) Explain the working of wireless local loops and its use in paging systems. CO4- U (16)
15. (a) With the detailed block diagram, explain the working of each block involved in microwave oven. CO5- U (16)
- Or
- (b) Draw the front panel of washing machine and explain the provisions available. Also, compare the working of fuzzy logic washing machine with fully automatic. CO5-U (16)