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**Question Paper Code: 59471**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

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. Diaphragm is made up of CO1- R  
(a) Aluminium      (b) Duralumin      (c) Carbon      (d) Copper
2. In television, 4:3 represents the CO2- R  
(a) interlace ratio      (b) maximum horizontal deflection  
(c) aspect ratio      (d) ratio of the two diagonals
3. The diameter of the scanning light spot used with CD is CO3- R  
(a) 10  $\mu\text{m}$       (b) 1  $\mu\text{m}$       (c) 0.1  $\mu\text{m}$       (d) 0.01  $\mu\text{m}$
4. The number to be dialed or called to reach a subscriber in the same CO4- R  
local network or numbering area is  
(a) Local code      (b) Area code      (c) Toll access code      (d) Subscriber number
5. Which of the following material is used to make heating element CO5- R  
of electric toaster?  
(a) Tungsten      (b) Platinum      (c) Iron      (d) Nichrome

PART – B (5 x 3= 15 Marks)

6. Draw and explain different microphone pickup patterns. CO1-U
7. What is forward AGC? CO2- R
8. Differentiate recording, playback and erase heads. CO3- R

9. What role is played by DTMF tones in answering machines? CO4- R
10. How the speed of the motor is controlled in washing machine? CO5- U

PART – C (5 x 16= 80Marks)

11. (a) What is the working principle of loud speaker? Explain about different types of loudspeakers based on its construction. CO1- U (16)
- Or
- (b) Explain the construction and working of carbon and condenser 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) What are the parts inside the audio cassette and explain the function of each in detail.. CO3- U (16)
- Or
- (b) How the audio signal can be retrieved from the storage device? Explain it in detail. CO3- U (16)
14. (a) Describe about the different protocols used for telephone communication. CO4- U (16)
- Or
- (b) Mention the different types of cellular systems. Also, explain the steps involved in making a call between two mobile users. 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) Explain the components of air conditioning system and its various types with neat diagrams CO5-U (16)