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(c) What are the essential requirements for good public address installation? How can these be met in practice? 7
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(d) Explain the working of the public address system with the help of a neat block diagram. 7

Unit-V

5. (a) What is the function of an air bag system in automobiles? 2

(b) Explain the working of car navigation system. 7

(c) Draw the block diagram of microwave oven. Briefly explain each block. 7

(d) Explain the sequence of operations in a wash cycle. 7

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B. E. (Eighth Semester) Examination,
April-May, 2016

(New Scheme)

CSVTUonline.com (ET & T Engg. Branch)

CONSUMER ELECTRONICS

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Attempt all questions. Part (a) of each question is compulsory and attempt any two parts from (b), (c) and (d). Part (a) carries 2 marks and (b), (c) and (d) carries 7 marks.

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1. (a) Justify the choice of a rectangular frame with width to height ratio equal to $4/3$ for television transmission and reception. 2

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(b) Explain the principle of working of vidicon camera tube. 7
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(c) Write short notes on the following :

(i) Flicker 3½

(ii) Persistence of vision 3½

(d) Explain the working of a monochrome T. V. system by block diagram. 7

Unit-II

2. (a) What do you understand by compatibility between monochrome and colour television systems? 2
- (b) Sketch composite video signal waveform for atleast three successive lines and indicate (i) extreme white level (ii) blanking level (iii) pedestal height and (iv) sync, pulse level. 7
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- (c) Explain briefly how the human eye perceives brightness and colour sensations. Comment on the spectral response of the eye. Why it is not necessary to transmit colour video information beyond about 1.5 MHz? 7

(d) Name the primary and complementary colours used in colour TV. What is GRASS MAN'S Law? Explain how the three primary colours combine to form white? 7
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Unit-III

3. (a) Define sensitivity of Microphone. What is its SI unit? 2
- (b) Explain the parameters on which quality of microphone depends. 7
- (c) Explain the working principle of a moving coil microphone with the help of a neat sketch. Give typical values of its parameters and mention its applications. 7
- (d) Explain the various steps involved in reconstitution of the audio signal. 7

Unit-IV

4. (a) Why is a loudspeaker called a reverse transducer? 2
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- (b) With the help of neat sketch, explain the principle of working of a horn-type loudspeaker. What are the advantages and disadvantages of a horn-type speaker relative to cone-type? 7