

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– V (New) EXAMINATION – WINTER 2019

Subject Code: 2151101
Date: 29/11/2019
Subject Name: Audio Video Systems
Time: 10:30 AM TO 01:00 PM
Total Marks: 70
Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

MARKS

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|------------|-----|--|-----------|
| Q.1 | (a) | Explain what is Timbre and Pitch? What do you understand by Threshold of hearing and Threshold of pain? | 03 |
| | (b) | Explain sensitivity of human ear for different sounds. | 04 |
| | (c) | What are the bandwidths for telephone speech, normal programs and high fidelity programs? Prove that the bandwidth of less than 4 KHz is sufficient for telephone. | 07 |
| Q.2 | (a) | Explain Cardioid Microphone. | 03 |
| | (b) | What is a tie-clip microphone? | 04 |
| | (c) | Compare Cone-type and Horn-type speakers. | 07 |
| | | OR | |
| | (c) | Explain different types of baffles. | 07 |
| Q.3 | (a) | Explain Reverberation Vs Echo. | 03 |
| | (b) | Write a note on USB MP3 players. | 04 |
| | (c) | What is a Crossover network? | 07 |
| | | OR | |
| Q.3 | (a) | What are the advantages of Digital Audio? | 03 |
| | (b) | What is Resolution of a TV? | 04 |
| | (c) | What is Interlaced Scanning? | 07 |
| Q.4 | (a) | Explain merits of Digital TV receivers. | 03 |
| | (b) | What is DTH technology? | 04 |
| | (c) | Write a short note on HDTV. | 07 |
| | | OR | |
| Q.4 | (a) | Explain advantages and disadvantages of Plasma screen. | 03 |
| | (b) | Compare Plasma TV and LED TV. | 04 |
| | (c) | Compare JPEG and MPEG. | 07 |
| Q.5 | (a) | Compare LED TV and LCD TV. | 03 |
| | (b) | What is the difference between Direct View and Rear Projection System? | 04 |
| | (c) | Explain surround sound stereo receiver. What is Dolby digital surround sound? | 07 |
| | | OR | |
| Q.5 | (a) | Which 50 inch TV would you buy if your budget is 50K INR? Justify your answer. | 03 |
| | (b) | Explain importance of Shielding and Grounding. | 04 |
| | (c) | Explain procedure of Servicing and Maintenance of AV Systems. | 07 |
