

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2024****Subject Code:2151101****Date:17-12-2024****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.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Explain following terms with respect to microphone. (1) Sensitivity (2) Frequency response (3) Directivity	03
	(b) Define amplitude, frequency, phase and wavelength for a sound wave.	04
	(c) Explain Working Principle of a moving-coil microphone with the help of neat sketch. Give typical values of its parameters and mention its applications.	07
Q.2	(a) What is a tie-clip microphone?	03
	(b) Explain : Multichannel Sound	04
	(c) Distinguish between cardioid, supercardioid and hypercardioid patterns and specify their applications.	07
	OR	
	(c) Draw and explain The Composite Video Signal in detail.	07
Q.3	(a) Compare JPEG and MPEG.	03
	(b) Compare LED TV & LCD TV.	04
	(c) Explain interlaced scanning in detail? What are its merits over simple (progressive) scanning?	07
	OR	
Q.3	(a) Explain Reverberation Vs Echo.	03
	(b) Explain in brief about baffles and enclosures in Loudspeaker.	04
	(c) What are the types of optical recording? Explain any one method of optical recording of sound on a film.	07
Q.4	(a) How is EDTV different from the conventional television system?	03
	(b) Explain how the luminance and color difference signals are developed from Camera outputs.	04
	(c) Explain Digital Television Receiver with a block diagram.	07
	OR	
Q.4	(a) Explain the following terms (a) Hue. (b) Saturation. (c) Luminance.	03
	(b) Compare front projection system and rear projection system.	04
	(c) Write a short note on HDTV.	07
Q.5	(a) What are the common faults in a PCB?	03
	(b) Write a note on OLED TV.	04
	(c) With the help of neat and clean block diagram explain DTH TV Receiver.	07
	OR	
Q.5	(a) Write the difference between cone type and horn type speaker.	03
	(b) Write down how you will locate faults in a power supply.	04
	(c) Explain in brief about troubleshooting of PA system using flow chart.	07
