

**GOVERNMENT POLYTECHNIC, MANESAR**

**LESSON PLAN**

**NAME OF THE FACULTY** :- Ms. MANJU (Lecturer)

**DISCIPLINE** :- ECE

**SEMESTER** :- 5th

**SUBJECT** :- AUDIO VIDEO SYSTEMS

**LESSON PLAN DURATION** :- 15 weeks (from July 2019 to November 2020)

**WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):-** Lecture-03, Practical-06

Week	THEORY		PRACTICAL	
	Lecture Day	Topic (Including assignment/test)	Practical Day	Topic
1 <sup>st</sup>	1 <sup>st</sup>	1. Introduction of Audio Systems	1 <sup>st</sup> Group	Introduction about practical
	2 <sup>nd</sup>	a) Microphones Carbon microphone		
	3 <sup>rd</sup>	Moving coil microphone	2 <sup>nd</sup> Group	Introduction about Practical
2 <sup>nd</sup>	4 <sup>th</sup>	Cordless microphone	1 <sup>st</sup> Group	To plot the directional response of a Microphone
	5 <sup>th</sup>	b) Loudspeakers Direct radiating		
	6 <sup>th</sup>	Horn loudspeaker	2 <sup>nd</sup> Group	To plot the directional response of a Microphone
3 <sup>rd</sup>	7 <sup>th</sup>	c) Multi-speaker system	1 <sup>st</sup> Group	To plot the directional response of a Loud Speaker
	8 <sup>th</sup>	d) Optical Sound recording		
	9 <sup>th</sup>	2. Digital Audio Fundamentals Audio as Data	2 <sup>nd</sup> Group	To plot the directional response of a Loud Speaker
4 <sup>th</sup>	10 <sup>th</sup>	Audio as Signal	1 <sup>st</sup> Group	To study public address system and its components.
	11 <sup>th</sup>	Digital Audio Processes outlined		
	12 <sup>th</sup>	Time compression	2 <sup>nd</sup> Group	To study public address system and its components.
5 <sup>th</sup>	13 <sup>th</sup>	Time Expansion	1 <sup>st</sup> Group	To test color TV using pattern generator.
	14 <sup>th</sup>	<b>Quiz, Assignment</b>		
	15 <sup>th</sup>	Sessional	2 <sup>nd</sup> Group	To test color TV using pattern generator.
6 <sup>th</sup>	16 <sup>th</sup>	3. Television a) Basics of Television	1 <sup>st</sup> Group	To perform fault identification in Colour TV.
	17 <sup>th</sup>	Elements of TV communication system		

	18 <sup>th</sup>	Scanning and its need	2 <sup>nd</sup> Group	To perform fault identification in Colour TV.
7 <sup>th</sup>	19 <sup>th</sup>	Need of synchronizing and blanking pulses,	1 <sup>st</sup> Group	Revision
	20 <sup>th</sup>	VSB		
	21 <sup>th</sup>	Composite Video Signal	2 <sup>nd</sup> Group	Revision
8 <sup>th</sup>	22 <sup>nd</sup>	b) Colour Television Primary, Secondary colours	1 <sup>st</sup> Group	Revision
	23 <sup>rd</sup>	Concept of Mixing, Colour Triangle		
	24 <sup>th</sup>	Camera tube	2 <sup>nd</sup> Group	Revision
9 <sup>th</sup>	25 <sup>th</sup>	PAL TV Receiver	1 <sup>st</sup> Group	To perform fault identification in Colour TV.
	26 <sup>th</sup>	NTSC, PAL, SECAM ( brief comparison)		
	27 <sup>th</sup>	4) Digital Video, Compression Techniques and Standards Digital Video	2 <sup>nd</sup> Group	To perform fault identification in Colour TV.
10 <sup>th</sup>	28 <sup>th</sup>	The RGB and YUV Representation of Video Signals	1 <sup>st</sup> Group	Installation of Dish Antenna for best reception.
	29 <sup>th</sup>	The Need for Compression and How compression works		
	30 <sup>th</sup>	Compression formats for video - MPEG-x , H.26x format	2 <sup>nd</sup> Group	Installation of Dish Antenna for best reception.
11 <sup>th</sup>	31 <sup>st</sup>	Quiz, Assignment	1 <sup>st</sup> Group	Revision
	32 <sup>nd</sup>	Sessional Test		
	33 <sup>rd</sup>	5) Digital Television-Transmission and Reception	2 <sup>nd</sup> Group	Revision
12 <sup>th</sup>	34 <sup>th</sup>	Digital satellite television	1 <sup>st</sup> Group	Installation of CCTV system.
	35 <sup>th</sup>	Direct-To-Home(DTH) satellite television,		
	36 <sup>th</sup>	Digital Terrestrial Television(DTT)	2 <sup>nd</sup> Group	Installation of CCTV system.
13 <sup>th</sup>	37 <sup>th</sup>	Introduction to :Video on demand,	1 <sup>st</sup> Group	Revision
	38 <sup>th</sup>	CCTV		
	39 <sup>th</sup>	CATV with optical fibre.	2 <sup>nd</sup> Group	Revision
14 <sup>th</sup>	40 <sup>th</sup>	6) Introduction to Liquid Crystal Televisions	1 <sup>st</sup> Group	Revision
	41 <sup>st</sup>	Introduction to LED Screen Televisions		
	42 <sup>nd</sup>	Basic block diagram of LCD	2 <sup>nd</sup> Group	Revision
15 <sup>th</sup>	43 <sup>rd</sup>	Basic block diagram of LED Television and their comparison	1 <sup>st</sup> Group	Practical
	44 <sup>th</sup>	Quiz, Assignment		
	45 <sup>th</sup>	Test	2 <sup>nd</sup> Group	Practical