

**GOVERNMENT POLYTECHNIC FOR WOMEN, FARIDABAD****LESSON PLAN****NAME OF THE FACULTY** :- Sh Punjab Singh (Lecturer)**DISCIPLINE** :- ECE**SEMESTER** :- 5th**SUBJECT** :- AUDIO VIDEO SYSTEMS**LESSON PLAN DURATION** :- 15 weeks (from July 2019 to November 2019)**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)<br>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                                   | 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                              | 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                                             |                       |                                                    |
|                 | 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.      |

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|------------------|------------------|-------------------------------------------------------|-----------------------|--------------------------------------------------|
| 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                      |                       |                                                  |
|                  | 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                | 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                     | 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                 | 1 <sup>st</sup> Group | Practical                                        |
|                  | 44 <sup>th</sup> | Quiz, Assignment                                      |                       |                                                  |
|                  | 45 <sup>th</sup> | Test                                                  | 2 <sup>nd</sup> Group | Practical                                        |