**Name of Assistant Professor: Miss Jyoti**

**Class and Section:B.sc 1st,2nd** Semester,

**Subject: Physics**

**Lesson Plan**: 18Weeks (from January 2018 to April 2018)

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| Week 1, **January 1 to January 7**  Unit1- Semiconductors |
| Week 1, Day 1, January 1  5.1 Energy bands in solids  5.2 Metals,Insulators,Semiconductors |
| Week 1, Day 2, January 2  5.3 Intrinsic semiconductors  5.4 Doping a Semi conductor or Increasing the conductivity of a semi conductor |
| Week 1, Day 3, January 3  5.5 Extrinsic semiconductor  5.6 Charge carrier in an extrinsic semi conductor  5.7 Carrier Mobilities and electrical reaiativity of semiconductors |
| Week 1, Day 4, January 4  5.8 Effect of temperature on conductivity of semiconductors  5.9 Distinction between intrinsic and extrinsic semiconductors |
| Week 1, Day 5, January 5 **Holiday** |
| Week 1, Day 6, January 6  5.10 Distinction between N-type and P-type semiconductor  5.11 Some important properties of semiconductors |
| Week 2, **January 8 to January14** |
| Assignments |
| Week 2, Day 1, January 8  5.12 Hall’s Effect  5.13 (a)P-N junction  (b) Biasing of a P-N junction  ( c) Zener and Avalanche breakdown |
| Week 2, Day 2, January 9  5.14 Characteristics of a P-N junction  5.15 Ideal diode |
| Week 2, Day 3, January 10  5.16 Resistance of a diode  5.17 Zener diode |
| Week 2, Day 4, January 11  5.18 Light emitting diode  5.19 Photo Conduction |
| Week 2, Day 5, January 12  Powerpoint Presentation |
| Week 2, Day 6, January 13  5.20 Photo Diode  5.21 Solar Cell  5.22 P-N junction as Rectifier |
| Week 3, **January 15 to January 21** |
| Week 3, Day 1, January 15  5.23 Halfwave Rectifier  5.24 Fullwave Rectifier |
| Week 3, Day 2, January 16  5.25 Bridge Rectifier |
| Week 3, Day 3, January 17  5.26 Filters |
| Week 3, Day 4, January 18  5.27 R.C. Filter Circuit |
| Week 3, Day 5, January 19  5.28 Power Supply |
| Week 3, Day 6, January 20  Revision of topics 5.1 to 5.9 |
| Week 4, **January 22 to January 28** |
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| Week 4, Day 1, January 22 **Holiday** |
| Week 4, Day 2, January 23  Revision of topics 5.10 to 5.18 |
| Week 4, Day 3, January 24  Class test from covered topics |
| Week 4, Day 4, January 25  Revision of topics 5.19 to 5.28 |
| Week 4, Day 5, January 26 **Holiday** |
| Week 4, Day 6, January 27  Discussion of conceptual questions |
| Week 5, **January 29 to February4** |
| Assignments |
| Week 5, Day 1, January 29  Discussion of problems |
| Week 5, Day2, January 30  Classs test of Unit 1 |
| Week 5, Day 3, January 31 **Holiday** |
| Week 5, Day 4, February 1  UNIT- 2 TRANSISTORS  6.1 Transistor |
| Week 5, Day 5, February 2  6.2 D.C. current gain in CB configuration |
| Week 5, Day 6, February 3  6.3 Standard notations |
| **Week 6, February 5to February 11**  Chapter |
| Assignments -1st Assignment |
| Week 6, Day 1, February 5  6.4Three configuration of a transistor |
| Week 6, Day 2, February 6  6.5 Common base characteristics of a transistor |
| Week 6, Day 3, February 7  6.6 Common emitter characteristics of a transistor |
| Week 6, Day 4, February 8  6.7 Relation between alpha and beta |
| Week 6, Day 5, February 9  6.8 current relations in CE configuration |
| Week 6, Day 6, February 10 **Holiday** |
| Week 7, **February 12 to February 18**  Chapter |
| Assignments |
| Week 7, Day 1, February 12  6.9 Common collector characteristics of atransistor |
| Week 7, Day 2, February 13 **Holiday** |
| Week 7, Day 3, February 14  6.10 Current gain in CC configuration |
| Week 7, Day 4, February 15  6.11 Current relation in CC configuration |
| Week 7, Day 5, February 16  6.12 Some parameters of the transistor in CB and CE configuration  6.13 Advantages and disadvantages of using CE configuration |
| Week 7, Day 6, February 17  6.14 D.C. load line and analysis |
| Week 8 **February 19 to February25** |
| Assignments |
| Week 8, Day 1, February 19  6.15 Biasing of a transistor |
| Week 8, Day 2, February 20  6.16 Different types of biasing circuits |
| Week 8, Day 3, February 21  Revision of topics 6.1 to 6.4 |
| Week 8, Day 4, February 22  Revision of topics 6.5 to 6.8 |
| Week 8, Day 5, February 23  Revision of topics 6.9 to 6.16 |
| Week 8, Day 6, February 24  Discussion of conceptual question |
| Week 9, **February26 to March4**  Chapter |
| Assignments |
| Week 9, Day 1, February 26  Quiz competition |
| Week 9, Day 2, February 27  Class test of unit 2 |
| Week 9, Day 3, February 28 **Holiday** |
| Week 9, Day 4, March 1 **Holiday** |
| Week 9, Day 5, March 2 **Holiday** |
| Week 9, Day 6, March 3 **Holiday** |
| Week 10, **March 5 to March11**  Chapter |
| Assignments |
| Week 10, Day 1, March 5  UNIT -3 TRANSISTOR AMPLIFIERS  7.1 Amplifiers |
| Week 10, Day 2, March 6  7.2 Classification of the amplifier on the basis of Quiescent point |
| Week 10, Day 3, March 7  7.3 Common base transistor amplifier |
| Week 10, Day 4, March 8  7.4 Common emitter NPN amplifier |
| Week 10, Day 5, March 9  7.5 Coupling in amplifiers |
| Week 10, Day 6, March 10  7.6 Decibels unit of voltage gain |
| Week 11, **March 12 to March 18**  Chapter |
| Assignments |
| Week 11, Day 1, March 12  7.7 Various methods of coupling of amplifiers |
| Week 11, Day 2, March 13  7.8 Resistance capacitance coupling |
| Week 11, Day 3, March 14  7.9 Feedback in amplifiers |
| Week 11, Day 4, March 15  7.10 Various types of feedback circuits |
| Week 11, Day 5, March 16  7.11 Voltage gain for a feedback voltage amplifier |
| Week 11, Day 6, March 17  7.12 Advantages of negative feedback |
| Week 12, **March 19 to March25** |
| Week 12, Day 1, March 19  7.13 Input and output Impedance of a voltage series feedback amplifier |
| Week 12, Day 2, March 20  7.14 Distortion in Amplifiers |
| Week 12, Day 3, March 21  7.15 (a) An amplifier circuit with negative feedback |
| Week 12, Day 4, March 22  7.15 (b) emitter follower circuit |
| Week 12, Day 5, March 23  Group discussion |
| Week 12, Day 6, March 24  Revision of topic 7.1 to 7.4 |
| Week 13, **March26to April 1** |
| Assignments -2nd Assignment |
| Week 13, Day 1, March 26  Revision of topic 7.5 to 7.10 |
| Week 13, Day 2, March 27  Revision of topic 7.11 to 7.15 |
| Week 13, Day 3, March 28  Discussion of conceptual question |
| Week 13, Day 4, March 29 **Holiday** |
| Week 13, Day 5, March 30  Discussion of problems |
| Week 13, Day 6, March 31  Class test of unit 3 |
| Week 14, **April 2 to April 8**  UNIT-4 OSCILLATORS |
| Assignments |
| Week 14, Day 1, April 2  8.1 Introduction |
| Week 14, Day 2, April 3  8.2 Oscillations in a tank circuit |
| Week 14, Day 3, April 4  8.3 Classification of Oscillators |
| Week 14, Day 4, April 5  8.4 Fundamental principle of oscillators |
| Week 14, Day 5, April 6  8.5 Feedback in oscillators |
| Week 14, Day 6, April 7  8.6 Common base collector tuned oscillator |
| Week15 , Day 1, April 9  8.7 Common emitter collector tuned oscillator |
| Week 15, Day 2, April 10  8.8 Common emitter base tuned oscillator |
| Week 15, Day 3, April 11  8.9 Hartley oscillator |
| Week 15, Day 4, April 12  8.10 Colpit’s oscillator |
| Week 15, Day 5, April 13  8.11 Cathode ray oscillograph |
| Week 15, Day 6, April 14 **Holiday** |
| Week 16, **April 16 to April22** |
| Week 16, Day 1, April 16  8.12 A time base circuit using a neon lamp |
| Week 16, Day 2, April 17  8.13 Deflection of the spot of light in a C.R.O. |
| Week 16, Day 3, April 18 **Holiday** |
| Week 16, Day 4, April 19  Poster/Chart making competition and exhibition |
| Week 16, Day 5, April 20  Revision of topic 8.1 to 8.4 |
| Week 16, Day 6, April 21  Revision of topic 8.5 to 8.8 |
| Week17 **April 23 to April29** |
| Week17 , Day 1, April 23  Revision of topic 8.9 to 8.13 |
| Week 17, Day 2, April 24  Discussion of conceptual question |
| Week 17, Day 3, April 25  Revision of unit 1 |
| Week 17, Day 4, April 26  Revision of unit2 |
| Week 17, Day 5, Apri 27  Revision of unit 3 |
| Week 17, Day 6, April 28  Class test of whole syllabus |
| Week 18 **April 30 to May 6** |
| Week18 , Day 1, April 30 **Holiday** |