BAP-C251
ENGINEERING PHYSICS LAB

MM: 50 **Sessional: 15**
Time: 2 hrs **ESE: 35**
L T P **Credits 1**
0 0 2

LIST OF EXPERIMENTS

1. To verify the inverse square law of radiation using Photoelectric effect.
2. To determine the value of Planck's constant and photoelectric work function of the material of the cathode using Photoelectric cell.
3. To determine the frequency of an unknown signal by the drawing the Lissajous patterns for various frequency ratios and evaluate the phase difference between two sinusoidal signals applied to X and Y inputs of cathode ray oscilloscope.
4. To determine the value of e/m of an electron by helical method / Thomson method.
5. To verify the existence of Bohr's energy level with Frank-Hertz apparatus.
6. To determine the resistivity and energy band gap by Four Probe method.
7. To determine the Curie temperature of the given Ferrite material.
8. To investigate resonance in forced Oscillations and to find the Spring Constant.
9. To find the refractive index of the material of given Prism using Spectrometer.
10. To determine the wavelength of He-Ne laser by Diffraction Method.
11. To determine the specific rotation of sugar solution using Laurent's half-shade Polarimeter.

NOTE

1. Additional experiments may be added based on contents of syllabus.
2. In practical examination the student shall be required to perform one experiment.
3. A teacher shall be assigned 20 students for daily practical work in laboratory.
4. No batch for practical class shall consist of more than 20 students.
5. The number of students in a batch allotted to an examiner for practical examination shall not exceed 20 students.
6. Addition/deletion in above list may be made in accordance with the facilities available with the approval of H.O.D./Dean.



BEE-C251
BASIC ELECTRICAL ENGINEERING LAB

MM: 50 **Sessional: 15**
Time: 2 hrs **ESE: 35**
L T P **Credits 1**
0 0 2

LIST OF EXPERIMENTS

1. Verification of Kirchoff's laws.
2. Verification of Thevenin's theorems.
3. Verification of Norton's theorem
4. Verification of Superposition theorem.
5. Verification of maximum power transfer theorem.
6. Measurement of power in three-phase circuit by two wattmeter method.
7. Determination of efficiency of a single-phase transformer by load test.
8. To perform open circuit test on single-phase transformer & find equivalent circuit parameters.
9. To perform short circuit test on single-phase transformer & find equivalent circuit parameters.
10. D.C. generator characteristics
    (a) Shunt generator
    (b) Series generator
    (c) Compound generator
11. Speed control of D.C. shunt generator.
12. To study running and reversing of a three-phase Induction Motor.
13. To study & calibration of a single-phase Energy Meter.
14. Calibration of voltmeter and ammeter.
15. To study of resonance in RLC circuit.

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BET-C251
ELECTRONICS DEVICES LAB

MM: 50 **Sessional: 15**
Time: 2 hrs **ESE: 35**
L T P **Credits 1**
0 0 2

LIST OF EXPERIMENTS

1. To draw the V-I characteristics of PN junction diode.
2. To draw the V-I characteristics of Zener diode and study it as voltage regulator.
3. To study junction diode as half wave and full wave rectifier.
4. To study junction diode as clipper and clamper.
5. To draw the input and output characteristics of a transistor in CE and CB configuration.
6. To find the small signal h-parameters of a transistor.
7. To draw the input and output characteristics of FET and to measure the pinch off voltage.
8. To draw the drain and transfer characteristic curve of MOSFET.
9. To draw the frequency response of FET amplifier.
10. To draw the frequency response curve of Emitter Follower.

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BME-C152/BME-C252
WORKSHOP PRACTICE

MM: 50 **Sessional: 15**
Time: 2 hrs **ESE: 35**
L T P **Credits 1**
0 0 2

LIST OF EXPERIMENTS

Carpentry Shop

1. Study of Carpentry Tools, Equipment and different joints.
2. To prepare a half T joint of given dimensions.

Molding Shop

3. Introduction to Patterns, pattern allowances, Gate, Riser, and Runner.
4. To prepare a mold of half bearing.

Metal Joining.

5. To prepare a butt joint of MS strips using Arc welding.
6. To prepare a T joint of MS strips using Oxy Acetylene gas welding.

Fitting Shop

7. To prepare a rectangular piece with slant edge of given size from M.S. flat.

Machine Shop

8. To prepare a job on Lathe machine of given shape and size.
9. To prepare a job on Shaper machine of given shape and size.
10. To prepare a job on Milling machine of given shape and size.
11. To prepare a job on CNC train master of given shape and size.
12. To prepare a job on drilling machine of given shape and size.

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BSP-S251
PHYSICAL TRAINING & YOGA

MM: 100 **Sessional: 50**
Time: 2 hrs
L T P **Credits 0**
0 0 2

UNIT-1

1. Warming Up (Meaning, Types and methods)
2. Components of physical fitness (strength, endurance, speed, flexibility and agility and coordinative ability)
3. Methods of Improving Strength
4. Methods of Improving Endurance
5. Methods of Improving Speed
6. Methods of Improving Flexibility
7. Limbering down

UNIT-2

1.Yama
2. Niyama
3. Asana
4. Shatkarma
5. Dharna and dhyana
6. Meditation and Samadhi