

ANANDAPUR COLLEGE, ANANDAPUR
EQUIPMENT LIST

DEPARTMENT OF PHYSICS

- 1 To study the motion of spring and calculate (a) Spring Constant (b) G and (c) modulus rigidity.
- 2 To determine an unknown low resistance using potentiometer.
- 3 To determine an unknown low resistance using Carey Foster bridge and compare capacitance using Desautys bridge.
- 4 Measurement of Field strength B and its variation in a solenoid/artificial coil. (determine dB/dX)
- 5 To verify the Thevenin and Norton theorems
- 6 To determine self inductance of a coil by Anderson Bridge.
- 7 To study the response curve of a series LCR circuits and determine its (a) Resonant frequency (b) impedance at resonance (c) Quality factor Q
- 8 To study the response curve of a parallel LCR circuits and determine its (a) Antiresonance frequency and (b) Quality factor Q
- 9
To determine the frequency of an electric tuning fork by Melde's experiment and 2T law.
- 10
To determine the dispersive power and resolving power of a plane diffraction grating
- 11 To determine the mechanical equivalent of heat, J by Callendar and Barnes constant flow method
- 12 To determine the specific heat of liquid by the method of cooling.
- 13 To determine the specific heat of solid by applying radiation correction.
- 14
Study of V-I and power curves of solar cells and find maximum power point and efficiency.
- 15 To study the various biasing configurations of BJT for normal class A operation.
- 16 To study the frequency response of voltage gain of a RC-coupled amplifier.
- 17 To design and study op-Amp-IC(741/351) as adder and subtractor.
- 18 To design a Wien bridge oscillator for given frequency using non-amp.
- 19 To design a phase shift oscillator of given specification using BJT.
- 20 To determine (1) wave length and (2) angular spread of He-Ne laser using plane diffraction grating
- 21 To set up the Millikan oil drop apparatus and determine a charge of an electron.
- 22 Half subtractor, Full subtractor, Adder-subtractor using full adder IC.
- 23 To build flip-flop (RS, clocked RS, D-type and JK) circuits using NAND gates.
- 24 To design a stable multivibrator of given specification using 555 timer.
- 25 To design a monostable multivibrator of given specification using 555 timer.
- 26
Measurement of susceptibility of paramagnetic solution (Quinck's tube method)
- 27
To measure the dielectric constant of a dielectric material with variation of frequency.
- 28 To determine the Hall coefficient of a semiconductor sample.
- 29 To measure the resistivity and band gap of a given semiconductor by four-probe method.
- 30 To analyze elliptically polarized light by using Babinet's compensator.
- 31 To determine the refractive index of liquid by total internal reflection
- 32 To determine the refractive index of (1) glass and (2) a liquid by total internal reflection using Gaussian eye piece.
- 33 To study the polarization of light by reflection and determine the polarizing angle for air-glass interface
- 34 To determine the wave length and velocity of ultrasonic wave in liquid.

- 35 To determine the rigidity modulus by static method.
- 36 To determine the frequency of atelecope by using sonometer.
- 37 Study of electron spin resonance-determine magnetic field as a function of resonance frequency.
- 38 Study of Zeeman effect with external magnetic field hyper fine splitting
- 39 Quantum efficiency of CCDs.
- 40 Determine of E.C.E. of a copper by taking 3 readings.
- 41
Determination of radiation of a convex/concave mirror by using Kohlrauschs method
- 42 To determine the magntifying power of a given telescope
- 43 To determine the reduction factor of a tangent Galvanometer.
- 44 To find resistance of a given wire using meter bridge and hence determine the resistivity of its material.
- 45
To determine the internal resistance of a given primary cell using potentiometer.
- 46 To convert the given galvano meter into a Voltmeter of desired range and to verify the same.
- 47 To convert the given galvanometer into a ammeter of desired range and to verify the same.
- 48 To find the frequency of ac mains with a sonometer.
- 49 To find the focal length of convex/concave mirror/lens using optical bench.

DEPARTMENT OF CHEMISTRY

- 1 Magnetic stirrer (Remi 2 MLH)/Tempo
- 2 pH meter (pen size)
- 3 Calorimeter
- 4 Conductive meter digital
- 5 pH meter digital
- 6 Potentiometer (Digital)
- 7 Apparatus for paper chromatography setup with all accessories.
- 8 Micro Burrete 10ml
- 9 Weighing balance (digital electronic sensitivity 10mg, Capacity 220 gm)
- 10 Pipette 10ml
- 11 Spectrophometer (UV-Visible Pc based single beam Systronics 119 along with Desktop PC and laser printer)
- 12 Visible Spectrophotometer
- 13 Iron Rack with sliding glass door (6' x 4' x 1.5')
- 14 Stool iron 24 Nos.

DEPARTMENT OF BOTANY

- 1 Desktop Computer for Digital Microscope with software
- 2 Water Analyser 371
- 3 Autoclave 20 ltr
- 4 Rain gauge with measuring cylinder copper type
- 5 Ocular Micrometer
- 6 Ph Paper
- 7 Universal indicator (pH)
- 8 Photographs of Aspergillus, Penicillium, Saccharomyces
- 9 Photographs of Agaricus, Puccinia (Life Cycle)
- 10 Photographs fossil slides (RHYNIA, LEPIDODENDRON, LYGENOPERTS)
- 11 Photographs of Chromosome anomoly
- 12 Photographs of Griffith's experiments Harshey and Chase's, Franckel and Conrat's experiment.


- 13 Photographs of Messelsons and Stahl's experiment.
- 14 Photographs of RNA polymerase and DNA replication
- 15 Photographs of pollen grains
- 16 Photographs of Antherculture.
- 17 Photographs of families (LAMIACEAE, ROSACEAE, RUBIACEAE, EUPHORBIACEAE, POACEAE, MUSACEAE, ORCHIDACEAE, CYPERACEAE, APOCYNACEAE, ASTERACEAE, BRASSICACEAE, SOLANACEAE)
- 18 Spirit lamp 05 Nos.
- 19 Digital Balance upto 2kg

DEPARTMENT OF ZOOLOGY

- 1 Compound Microscope
- 2 Simple Microscope
- 3 Sphygmomanometer (Manual)
- 4 Planktonic Net
- 5 Titration Apparatus
- 6 Thermister Thermometer
- 7 Chromatography Chamber
- 8 Turbidity Tube
- 9 Seechi Disk
- 10 Descicator
- 11 Suction Flask
- 12 Glass Stoppered Bottles
- 13 Disection Box
- 14 Beakers
- 15 Test Tubes
- 16 Thistle funnel
- 17 Liquid in glass field Thermometer
- 18 Filter papers
- 19 Fossil of Horse and Man
- 20 Forre Limb bones of Human. Dog, Bird, Whale (Homology Organ) Plaster Cast Model
- 21 Wing of insects, Bat, Bird (Analogus Organs) Plaster cast models
- 22 Model's of Darwins Finches

Others

- 1 DG Set 25kv
- 2 Projector
- 3 Desktop Computer (Core-i3 1tb 4GB)
- 4 Computer Furniture
- 5 Sports Goods (Basketball Courts with All fittings)
- 6 For Gym.
 - a. Tread Mill
 - b. Dumbbell & Others


 Principal,
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 6/10/20