

DEPT. OF PHYSICS
KAPTIPADA COLLEGE, KAPTIPADA, MAYURBHANJ

Experiment's List

SL. NO	ITEMS NAME
	INSTRUMENTS
01	To determine the modulus of Rigidity of wire by Maxwells needle. <u>Technical Specification</u> ➤ Hollow cylindrical brass tube of length 40cm ➤ Maxwell's needle ➤ Wall Bracket ➤ Wire ➤ Screw Gauge: Material: Stainless Steel, Range: 0-25mm, Finish: Metallic ➤ Meter Scale- 1 meter (wood) ➤ Digital Weighing Balance: Body: Plastic, Capacity: 700g, Least Count: 0.1g ➤ Stopwatch: Count: 1/100 second, Time display: Hour, Minute, Seconds (Optional) Make: Indosaw/Omega India/Phywe/Lambda
02	To determine the value of g using Kater's Pendulum. ➤ Steel Rod: 100 cm in length, 1.2 cm diameter ➤ SS adjustable masses: 600g & 300g (each) ➤ Wall bracket ➤ Meter Scale: 100cm (wood) ➤ Digital Stopwatch- Count: 1/100 second, Time display: Hour, Minute, Seconds ➤ Removable sharp knife edges: 2 nos ➤ Adjustable wooden light masses: 2 nos ➤ Reading Telescope Make: Indosaw/Omega India/Phywe/Lambda
03	To determine wave length of sodium light using Newton's rings. <u>Technical Specification</u> BRIDGE TYPE MICROSCOPE ➤ Eyepiece: Ramsden 10x, Objective: 3x ➤ Scale Length: 110mm, Least count: 0.01mm NEWTON'S RINGS REFLECTOR ➤ Housing: PVC, Finish: Matt black painted, Glass plate: Mounted at 45 deg. C SPHEROMETER (DISC BRASS) ➤ Type: 3 legs, Vertical scale: 6mmX6mm (WxT) ➤ Micrometer: Dia. 40mm, Brass, Lower disc: Dia. 60mm ➤ Range: 10-0-10mm, Least count: 0.01mm PLANO CONVEX LENS ➤ Dia. 61.5mm, Glass, Focal Length: 200mm SODIUM LIGHT SOURCE ➤ Sodium Light Lamp 35W, Transformer with metal Box ➤ Lamp house: 300x85mm, Aperture dia : 25mm Make: Indosaw/Qmega India/Phywe/Lambda
04	To determine the co-efficient of Thermal conductivity of a bad conductor by Lee & Chartons disc method. <u>Technical Specification</u> ➤ Hollow metal box, MS chrome plated rod, Thread reel, MS painted base, Chrome plated brass disc, Disc made of ebonite and glass, Steam generator, Steam Chamber, Thermometer alcohol-10 to 150 deg. C x 1 deg. C, Stop watch, Rubber tube silicon L=50cm, Rubber tube L=50cm, Hot plate dia 6", Glass beaker 250ml Make: Indosaw/Omega India/Phywe/Lambda
05	To determine the temperature co-efficient of resistance by Platinum resistance thermometer (PTR) <u>Technical Specification</u> ➤ Platinum Resistance Thermometer ➤ Three in one (Callender & Griffth bridge, Carry Foster bridge and potentiometer) ➤ Galvanometer ➤ Hypsometer Copper

	➤ Power supply 2V DC 100mA ➤ Connecting leads red & black 50cm (pair) ➤ Hot plate ➤ Banana lead socket with U clip ➤ Thermometer -10° to 150° c x 1°c ➤ Connecting lead red & black 100cm(pair) ➤ Instruction manual Make: Indosaw/Omega India/Phywe/Lambda
06	To study the frequency response of voltage gain of a RC-coupled transistor amplifier. Technical Specification ➤ Signal :1KHz/15mV Sine wave ➤ Transistor :BC107BP-2nos ➤ Resistor:33KΩ-2nos,330Ω-2nos,3.3KΩ-2nos,1KΩ-2nos ➤ Capacitor:100μF-3nos,10μF-2nos ➤ Interconnection:2mm patch cord ➤ Mains Power :230V/50Hz Make: Indosaw/Omega India/Phywe/Lambda
07	To design & study Op-Amp IC (741/351) as inverting and non inverting amplifier. Technical Specification ➤ Trainer Board with circuit printed on it , with resistors and capacitors along with opamp 741. Inbuilt power supply is provided to the 741 – Op-amps, Instruction Manual, Connecting Wires -Gun type ➤ CRO & Function Generator Make: Indosaw/Omega India/Phywe/Lambda
08	To determine the co-efficient of thermal conductivity of Cu by Searle's Apparatus Technical Specification ➤ Searle's Apparatus ➤ Constant water level bath ➤ Measuring Beaker 600ml ➤ Stop Watch ➤ Steam generator ➤ Thermometers ➤ Pinch cock ➤ Silicon tube ➤ Digital Balance Make: Indosaw/Omega India/Phywe/Lambda

20/11/24

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