



GOVERNMENT ENGINEERING COLLEGE, DAMAN

DEPARTMENT OF CIVIL ENGINEERING

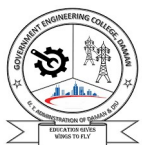
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FLOCCULATOR (JAR TEST)



Basic Details: -

1. Jar Test Apparatus, commonly known as flocculators or flocculation testers, are used primarily in the water treatment and testing industry.
2. Jar Test Apparatus allows efficient and economical flocculation, jar Test Flocculator are used for a uniform stirring of samples in a water testing laboratory.
3. Apparatus has 6 jar set capacity with rotation speed ranging from 25 to 200 rpm.
4. Pre-set programs and timer upto 99 minutes
5. Touch sensitive keyboard and digital display
6. Electrical Supply: 230 V AC 50 Hz single phase



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SPECTROPHOTOMETER



Basic Details: -

1. A spectrophotometer is an instrument that measures the amount of photons (the intensity of light) absorbed after it passes through sample solution.
2. With the spectrophotometer, the amount of a known chemical substance (concentrations) can also be determined by measuring the intensity of light detected.
3. Double beam, Czerny Turner monochromator with grating of 1200 lines/mm for Ultra violet and visible range
4. Xenon flash lamp (80 Hz)
5. 2 silicon diode detectors for simultaneous sample beam and reference beam measurements
6. Measurable range: 190-1100 nm
7. Spectral bandwidth: Up to 2 nm



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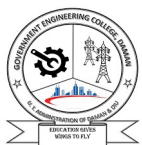
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DIGITAL COLONY COUNTER



Basic Details: -

1. Digital Colony Counter is designed for quick and accurate counting of bacterial and mould colonies in petri dishes.
2. Colony counters count the number of colonies of microorganisms that have grown on an agar plate prepared from a sample.
3. Sloping at front cover with large magnifying lens.
4. Built in large free illumination with black reflection free background.
5. Special pen type probe allows marking & counting simultaneously.
6. Counting is registered on a electronic counter.
7. A fluorescent light provides uniform day light illumination



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DIGITAL FLAME PHOTOMETER



Basic Details: -

1. Flame photometer is a device used in inorganic chemical analysis to determine the concentration of certain metal ions, among them sodium, potassium, lithium, and calcium.
2. Flame photometer is based on the measurement of the emitted light intensity when a metal is introduced into the flame.
3. The advantages of flame photometry are the low cost as compared with atomic absorption or atomic emission spectrophotometry.
4. Range: Na: 0 – 100 ppm, K : 0 – 100 ppm, Ca: 15 – 100 ppm, Li: 10 – 100 ppm
5. Sensitivity: Na: 5 ppm, K : 5 ppm, Ca: 10 ppm, Li: 10 ppm
6. Accuracy: + 2% upto 40 ppm, + 5% above 40 ppm



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DIGITAL PH-CONDUCTIVITY-TEMPERATURE METER



Basic Details: -

1. Our Multi Parameter Meter is a compact design and helps to measure pH, Conductivity, TDS and Temperature at the same time
2. The microprocessor-based meter gives accurate readings in fluctuating temperatures and can be easily calibrated.
3. Fast, Reliable and Accurate measurement.
4. Replaceable Electrode Module
5. Built-in Temperature Sensor
6. Auto Shut Off Function to Enhance Battery Life.
7. Hold Function for Ease of Read & Record.



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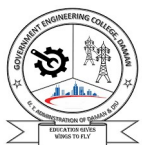
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SOUND LEVEL METER



Basic Details: -

1. Sound-level meter, device for measuring the intensity of noise, music, and other sounds.
2. A typical meter consists of a microphone for picking up the sound and converting it into an electrical signal, followed by electronic circuitry for operating on this signal so that the desired characteristics can be measured.
3. Measuring Instruments - 4001(A & C),
4. Calibration Measurement: 3 Range ,35 to 130 dB (typical 30 Range to 130dB),input signal only, Accuracy : 0.1dB .



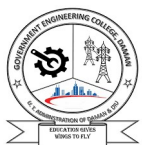
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DIGITAL DISSOLVED OXYGEN METER



Basic Details: -

1. Dissolved oxygen meters are sensors that help measure the amount of gaseous oxygen that may be dissolved in a sample of water.
2. Dissolved oxygen is usually reported in milligrams per liter (mg/L) or as a percent of air saturation.
3. Range: O₂:- 0.00 to 45.00 mg/L %; Saturation O₂:- 0.0 to 300.0%; Temperature:- 0.0 to 50.0°C
4. Power Supply: (4) 1.5V AA batteries / approx. 200 hours of continuous use; auto-off after 4 hrs of inactivity; or input for 12 Vdc power adapter



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PHOTO COLORIMETER



Basic Details: -

1. The photoelectric colorimeter is commonly employed for measurement of different substances in the blood like glucose, blood urea, blood enzymes, and others.
2. A compact and easy to operate instrument for Photo Colorimeter analysis of any concentration.
3. The output is available on a 16 x 2 line alphanumeric backlit LCD display in terms of %Transmission (%T), Absorbance (Abs.), Concentration (Conc.), and K-Factor.
4. This instrument has 100 sample storage memory and printer output facility for printing data with any dot matrix printer.

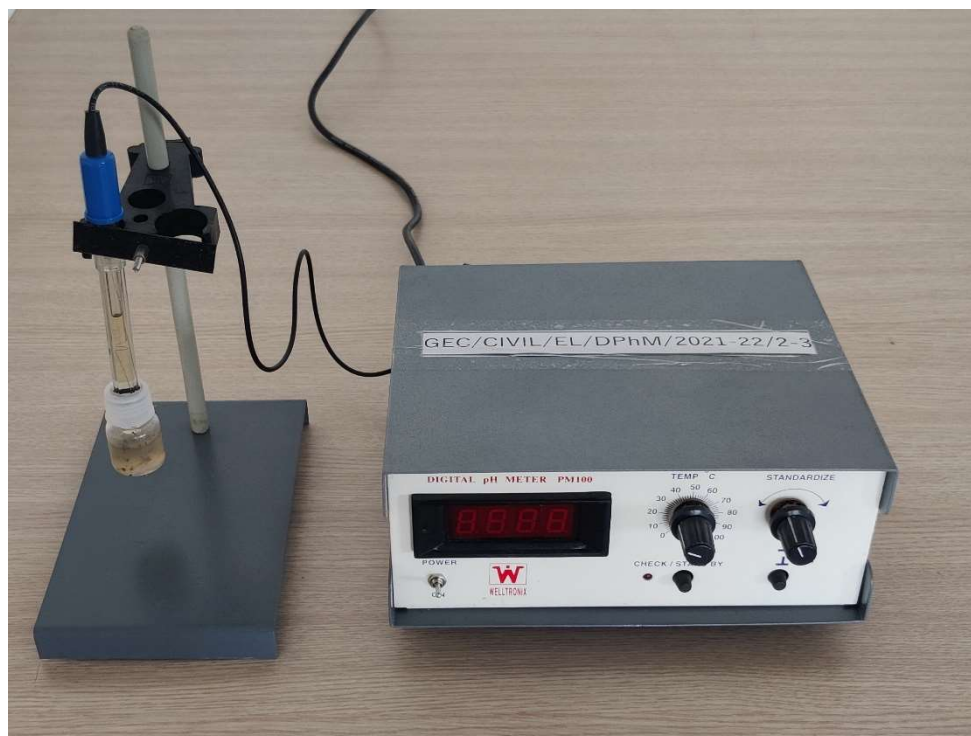


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DIGITAL pH Meter



Basic Details: -

1. Digital pH Meters is ideal instruments for determination of pH and mV value of any aqueous solution.
2. The direct reading Laboratory pH meter (Digital) operable at 230V +/- 10V A.C., 50 Hz power supply with necessary cable connections and other standard accessories required for smooth operation.
3. pH Range 0 to 14 pH (Min.) 0.001 pH
4. Temperature Compensation: 0 to 100°C
5. Input Impedance: > 10 ohms
6. Slope Control: 80 to 120%



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DIGITAL TURBIDITY METER



Basic Details: -

1. Turbidity meter is the instrument which measures the decrease in intensity of the transmitted light due to scattering of particles suspended as precipitates or aggregates in a medium.
2. Digital LED, display Range upto 2000 NTU.
3. A light detector is placed at (usually) a 90-degree angle to the light source, and detects the amount of light that is reflected back at it.
4. Power supply: 230V AC 50 Hz. (Table Model)



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LABORATORY CENTRIFUGE MACHINE



Basic Details: -

1. Centrifuge machine is used to separate fluids, gases, or liquids based on density.
2. Variable speed up to 6000 RPM
3. Zero RPM lid safety lock and rotor unbalance sensor
4. Automatic rotor recognition
5. Auto unbalance detection
6. Built-in oversized LCD Display
7. Digital timer 0-99 min



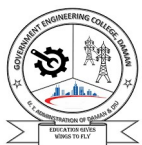
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AUTO CONDUCTIVITY-TDS-TEMPERATURE METER



Basic Details: -

1. Auto Conductivity-TDS-Temp. Meter is an instrument designed to provide the precise conductivity/TDS measurements.
2. The instrument uses the latest Microprocessor technology and advanced engineering techniques so as to give enhanced accuracy and reproducibility.
3. 16 x 2 Line Alphanumeric LCD Display
4. Auto Temperature Compensation
5. Auto Ranging Facility
6. Power 230 V \pm 10%, 50 Hz; Resolution 0.01 μ S; Accuracy \pm 0.5% FS \pm 1 Digit
7. Range 0-20, 0-200 μ S, 0-2, 0-20, 0-200 mS
8. Accessories: Conductivity/TDS Cell, Temperature probe, Dust Cover, Instruction Manual
9. Temperature compensation: Auto/Manual (0-50-degree Celsius)



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LABORATORY CENTRIFUGE MACHINE



Basic Details: -

1. Chemical Oxygen Demand Digestion Apparatus is a solid-state block heated unit with provision for samples to be digested at a time in 38 mm. diameter reaction vessels with 20 ml sample size of heat at temperature Of $150^{\circ}\text{C} + 1^{\circ}\text{C}$ controlled by Micro Processor PID Controller.
2. It has provision for 15 samples and is supplied with 15 nos. glass reaction vessels and 15 nos. air condensers.
3. Fitted with a 2 hour timer, the samples after being digested for 2 hours can be analyzed using calorimeter or conventional titration method.
4. To work on 220/230 volts AC.
5. Up to 15 holes with Glass Part & Strength.



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STACK MONITORING KIT



Basic Details: -

1. Stack Monitoring Kit is designed to serve the most crucial purpose of measuring the total volumetric discharge of particulate matter and gaseous pollutants from the Boiler, DG stacks, Process outlets, Scrubber Outlets.
2. Pitot tube: "S-type" fabricated from SS304 or equivalent grade. Coefficient of Pitot tube should be above 0.95 in stack monitoring system. S Type Pitot Tube
3. Stack velocity Range: we can find the velocity of gaseous pollutants through stack with the help of inclined manometer.
4. Temperature of gaseous effluents: we can use digital temperature indicator with thermocouple to find the temp of gaseous effluents. Range is from (0-6000C). Velocity & temperature is different at different location inside the stack diameter. To achieve a desired sample, samples are taken at various traverse points inside the stack diameter in stack monitoring procedure.
5. Thimble holder: It is designed to capture particulate matter form gaseous effluents. It is incorporate with the thimble to capture PM size greater than 0.3 micron.



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PORTABLE AUTOCLAVE



Basic Details: -

1. Portable Autoclave is used for general purpose sterilization. Saturated steam is used to sterilize articles rapidly and efficiently.
2. It is also used as a cooker in plateau areas and also for making high quality drinking water in Drinking Water Plant Working Temperature: 121°C – 140°C
3. Operating Pressure: 15 PSI / 18 PSI
4. Sterilization Time: 1 to 0.99 Minutes
5. Construction: 304 Grade Stainless Steel
6. Working Chamber :35 x 50 (dia x height) (Cm). Cap.Ltrs : 35, Rating 2.0KW



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BOD INCUBATOR



Basic Details: -

1. BOD Incubator (Bio-Oxygen Demand) are used to maintain temperature for test tissue culture growth, storage of bacterial cultures and incubation where high degree of constant temperature accuracy is required.
2. Exterior body is fabricated from Mild Steel material, which is powder coated in attractive shades.
3. Interior chamber is also fabricated from Mirror polished Stainless Steel Material
4. Double walled metal door with sponge - type silicon gasket to offer air-tight sealing
5. Air-tight sealing avoids leakage of chamber uniformity
6. User friendly and tactfully designed chamber door and locking mechanism
7. Aesthetic outer appearance and unique design features
8. Unit mounted on castor wheels for easy movement.