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| 1 | Water distillation Product Distilled Water |  |
| 2 | MicroPipettes: They are used to transfer of known volumes (Microliters) of liquids from one container to another. |  |
| 3 | Graduated Cylinder: They are not highly accurate, but they are often used to measure specified quantities of liquids. |  |



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| 4 | <p>Sensitive Balance: It is asensitive instrument for measuring the mass of solid samples in grams or milligrams.</p> |  |
| 5 | <p>Sonicator bath: A tool that propagates ultrasonic waves through fluid contained within it. The ultrasonic bath is used in the laboratory to lyse cells, to degass water, and to break up clumped and aggregated magnetic beads, among many other uses</p> |  |
| 6 | <p>Autoclave: a machine used to provide high temperature temperature (125-135)°C and pressure to perform sterilization.</p> |  |



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| 7 | <p>Center Fuge device: -</p> <p>We use it to separate components, especially to separate blood components</p> |  |
| 8 | <p>MICROLITER CENTRIFUGES</p> <p>Microliter centrifuges are designed for processing very small samples at very high speeds. This is usually used for kits for isolating DNA and RNA. These steps are necessary in order to analyze the DNA and RNA or process them further for polymerase chain reaction (PCR).</p> |  |



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| 9 | <p>Vortex mixer:</p> <p>A relatively simple device, used in bioscience, microbiology, biochemical, and analytical laboratory settings to mix small vials of liquids in a quickly oscillating circular motion. When the motion of the rubber cup holder on the mixer is transmitted to the liquid sample</p> |  |
| 10 | Electrophoretic Graph Visualizer |  |
| 11 | <p>UV Vis Spectrophotometer</p> <p>Single beam, scanning UV/Visible range spectrophotometer with LCD display and onboard data processing capabilities.</p> |  |



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| 12 | HPLC |  |
| 13 | <p>DNA extractor</p> <p>purify DNA by using physical and/or chemical methods from a sample separating DNA from cell membranes, proteins, and other cellular components.</p> |  |
| 14 | <p>er</p> <p>analytical instrument used to identify materials including organic polymers. Infrared spectrophotometers record the relative amount of energy as a function of the wavelength/ frequency of the infrared radiation when it passes through a sample.</p> |  |



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| 15 | <p>Atomic absorption</p> <p>application of characteristic wavelengths of electromagnetic radiation from a light source. Individual elements will absorb wavelengths differently, and these absorbances are measured against standards.</p> |  |
| 16 | <p>Incubator</p> <p>provides a temperature-controlled environment to support growth of microbiological cultures</p> |  |
| 17 | <p>Atomic absorption spectroscopy</p> <p>a spectroanalytical procedure for the quantitative determination of chemical elements by free atoms in the gaseous state</p> |  |



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| 18 | <p>UV cabinet:</p> <p>The UV Cabinet is a desktop disinfection device, offering simple operation and compact dimensions. Its application is for the UVC disinfection of small tools and objects. The device contains two internal UVC lamps and reflectors. The device's disinfection efficiency is up to 99%</p> |  |
| 19 | <p>Rotary evaporator</p> <p>A rotary evaporator (rotovap) is a device used in chemical laboratories for the efficient and gentle removal of solvents from samples by evaporation</p> |  |




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| 20 | <p>Refrigerated Circulation Bath (Chiller)</p> <p>Circulating baths are constant temperature water baths that enable rapid heating and cooling of samples by constantly circulating water. Efficient temperature maintenance can be performed over a wide range of temperatures. Temperature Range. Ambient +13° to 150°C.</p> |  |
| 21 | <p>Thermal Cycler:</p> <p>The thermal cycler (also known as a thermocycler, PCR machine or DNA amplifier) is a laboratory apparatus most commonly used to amplify segments of DNA via the polymerase chain reaction (PCR). It amplifies target nucleic acid sequences into millions of copies via polymerase chain reaction. Thermal cyclers inherit their name because they regulate temperatures in a cyclical program.</p> |  |

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| 22 | <p>chemical fume hood:</p> <p>Used to prevent the release of hazardous substances into the general laboratory space by controlling and then exhausting hazardous and/or odorous chemicals.</p> |  |
| 23 | <p>Centrifuges:</p> <p>separate heterogeneous mixtures into their various components – liquids in liquids, solids in liquids, and liquids in gases, based on the different densities of the components. One of the most common uses is to separate red blood cells and other blood components from whole blood.</p> |  |

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| 24 | <p>MINI VIDAS</p> <p>is a compact automated immunoassay system based on the Enzyme Linked Fluorescent Assay (ELFA) principles. Convenient and user-friendly, it provides accurate on-demand test results</p> |  |
| 25 | <p>UV/Vis spectrophotometers provide individuality and flexible operation in routine and special analysis</p> |  |

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| 26 | <p>ELISA is a distinguished analysis compared to other antibody-assays as it yields quantitative results and separation of non-specific and specific interactions that take place through serial binding to solid surfaces, which is normally a polystyrene multi well plate</p> |  <p>The image shows a Biotek ELISA reader, a common laboratory instrument for measuring the intensity of color in ELISA assays. It features a control panel with a digital display and several buttons. A multi-well plate is being inserted into the top of the machine. A label with the word 'ELISA' is visible on the front of the device.</p> |
| 27 | <p>The Nanodrop Spectrophotometer: A device used primarily to measure DNA, RNA or protein concentrations in the UV/visible light range. It can be used to measure absorbance spectra or single wavelengths of these macromolecules in solution</p> |  <p>The image shows a Nanodrop Spectrophotometer, a device used for measuring the concentration of DNA, RNA, and proteins. It has a red base and a white top. The brand name 'analytikjena' is visible on the front. A sample is being measured, and the results are displayed on the screen.</p> |

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| 28 | <p>ELISA device:</p> <p>Uses the ELISA (enzyme-linked immunosorbent assay), which is a plate-based assay technique designed for detecting and quantifying soluble substances such as peptides, proteins, antibodies, and hormones.</p> |  <p>The image shows a BioTek ELISA reader. It is a grey, boxy machine with a black front panel. On the left, there is a large rectangular opening for inserting a microplate. To the right of this opening is a control panel featuring a small LCD screen at the top, followed by several buttons, and a numeric keypad below. The brand name 'BioTek' is visible on the right side of the machine. Two white labels with Arabic text are attached to the top of the device.</p> |
| 29 | <p>A water bath</p> <p>is laboratory equipment made from a container filled with heated water. It is used to incubate samples in water at a constant temperature over</p> |  <p>The image shows a white HYSC water bath. It is a rectangular, box-like machine with a stainless steel top surface. On the front, there is a control panel with a digital display showing '88.88', several buttons, and a red power switch. The brand name 'HYSC' is printed on the front. On top of the machine, there is a yellow warning label and a small orange container.</p> |

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| 30 | <p>Water bath sonucater</p> <p>These devices are employed to facilitate a wide variety of processes, such as mixing, cleaning, degassing, cell disruption, and sample preparation</p> |  <p>A white and blue Grant SUB Aqua 12 Plus water bath sonicator. It features a blue lid with a handle, a digital display, and several control buttons on the front panel. The brand name 'Grant' is visible on the top right.</p> |
| 31 | <p>Lyophilizer machine</p> <p>executes a water removal process typically used to preserve perishable materials, to extend shelf life or make the material more convenient for transport. Lyophilizers work by freezing the material, - 60 C, then reducing the pressure, less than 1 Atmosphere, and adding heat to allow the frozen water in the material to sublimate.</p> |  <p>A white and blue CHRIST lyophilizer machine. It has a large glass viewing window on top, showing internal components. The brand name 'CHRIST' is visible on the front panel.</p> |
| 32 | <p>IR Spectrophotometer</p> <p>It is used in the qualitative and quantitative analysis of solid and liquid materials within the examination area (400-6000)cm-1</p> |  <p>A white and blue Bruker TENSOR 27 IR Spectrophotometer. It has a compact design with a blue front panel and the Bruker logo on the left side.</p> |

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| 33 | <p>HPLC</p> <p>high-performance liquid chromatography, is an analytical technique that separates, identifies, and quantifies components in a specific mixture. It is the most basic chromatography technique for most laboratories worldwide</p> |  <p>The image shows a stack of HPLC components. At the top is a solvent reservoir with two bottles labeled 'Acetone' and 'Water'. Below it is a pump (DGP-25A), an injector (IC-20AB), a column (SPD-20A), and a detector (CDD-20A). The system is connected by various tubes and fittings.</p> |
| 34 | <p>Chiller</p> |  <p>The image shows a blue Lab. Companion CW-30GL chiller unit. It has a digital display showing '88.88' and a control panel with buttons and a green power button. A white paper with Arabic text is attached to the front. The unit is labeled 'Lab. Companion' and 'CW-30GL'. There are also warning labels on the right side.</p> |