**Lab Three:.**

**instruments and equipments in molecular lab**

 Biosafety cabinet (BSC): is an enclosed, ventilated laboratory workspace for safely working with materials contaminated with (or potentially contaminated with) pathogens requiring a define biosafety level. it found three classes of BSC depending on (providing safety to person, environment and samples)

**class I**: provide safety to person and environment only.

**class II:** provide safety to person, environment and samples.

**class III**: provide safety to person, environment and samples, generally only installed in maximum containment laboratories, is specifically designed for work with more dangerous pathogen like viruses .





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| **Picture** | **description** | **Instrument** |
| C:\Users\Acer\Pictures\33.jpg | enclosed, sterilized space work. | PCR work station |
| C:\Users\Acer\Pictures\33.png | To mix the reaction continent | Vortex shaker |
| C:\Users\Acer\Pictures\33.jpg | To participate cell continent | Cool centrifuge |
| C:\Users\Acer\Pictures\33.png | To amplified DNA molecules (quality identification) | Conventional PCR |
| C:\Users\Acer\Pictures\untitled.png | To amplified DNA molecules and measuring gene expression(quality and quantity identification) | Real-time PCR |
| C:\Users\Acer\Pictures\33.jpg | To measuring nucleic acid concentration and purity | Nanodrop |
| C:\Users\Acer\Pictures\33.jpg | To separate nucleic acid and protein with molecular weigh less than 10000 bp | Gel electrophoresis |
| C:\Users\Acer\Pictures\33.png | To separate nucleic acid and protein with molecular weigh more than 10000 bp | Pulse gel electrophoresis |
| C:\Users\Acer\Pictures\33.jpg | To detect nucleic acid and protein were separated in gel electrophoresis run | UV-Transilluminator |
| C:\Users\Acer\Pictures\33.jpg | To determine sequence of nucleotide in DNA strand | DNA sequencer |
| C:\Users\Acer\Pictures\34.jpg | To keep biological material in low temperature | Deep freeze |
| C:\Users\Acer\Pictures\34.jpg | To transfer the appropriate amount of volumes | Micropipettes in different size |
| C:\Users\Acer\Pictures\34.png | To keep and holder samples in experiment | Different size of eppendorf tubes |