**Assignment for viva**

**Name: Haris khan**

**Id No= 16848**

. Write the names and function of different equipments used in microbiology lab

**Ans:Lebortery:**

 A laboratory is room or a place equipped for the performance of tests experimentation investigative processes.

**Lab equipment:**

 Lab. equipment refers to the vuirus tools used by scientists working in a labortory.

**Microscopy:**

* Is an optical instrument consisting of a combination of lenses which magnifies the image of the objects seen through it
* It is used for the morpological study of a very small organisms which are not visible by naked eye.
* Ther are three type of microscope
* simple
* compound
* electron

**Incubators:**

* Is a device used to grow and maitan microbiological culture
* The incubators maintains optimal tempreture humidity and other conditions such as the carbondoxide (co2) and oxygen content of the atmosphere inside.

**Autoclave:**

* An autoclave is a pressure chembar used to sterilize equpment supplies by subjecting them to high pressure satureated steam at 121c for the around 15-20 mintus depending on the size of the load in the contents.
* Used to sterlize culture media discard and other equipments.

**Oven:**

* Device used in sterilization.
* Oven uses dry heat to sterilize
* It used to sterilize items that might be demaged by moist heat (e.g, glasswares, poder . oils)

**labortory refrigerator:**

* It used for a wide variety of purposes such as:
* maintance and storage stock culture between sub culturing periods .
* Storage of sterile media to prevent dehydration .
* Also used as repository thermolable solution, antibiotics and serum.

**Centrifuge:**

* Is in appretus that rotetes at high speed and sparates substances of different densites.

**Balance:**

* Used to mesure and objects mass to a very high degree of precision.

**hote plate:**

* Used to heat and stir substances.

**Anareobic jar:**

* Is in instrument used in the producation of an anarobic environment.
* This methorod of anrobiosis is used to culture bacteria which die or fail to grow in presence of oxygen .

**Glassware:**

 **Glass slide and cover slip:**

Glass slide

* Used to place spcimens on tob observe under the microscop

Cover slip;

* Used to cover speimens on a microscope slide.

**Filter paper:**

* Special paper used to seprate solids form liquid.

Q2. What are the different chemical and physical methods of sterilization and disinfection?

**Ans: Sterrilisation:**

It is a porocess by which an artical, surface are medium as made free of all microorganism either in vegatative or spore from.

**Disinfection:**

Destrution of all pathogens are organisms cable of producing infections but not necessarily spores.

all organisms may not be killed but the number is reduced to a level that is no longer harmful to health

**Physical methods:**

* physical methods:
1. sun light
2. Heat
3. Dry heat
4. Moist heat
5. Filtration
6. Radiation

**Chemical methods:**

1. **Alcohols**
2. **Aldehydes**
3. **phenols**
4. **Haloges**
5. **Oxidizing agents**
6. **salt**
7. **surface active agent**
8. **Dyes**
9. **Vapor phases disinfectants.**