

## Assignment for viva

- Q1. Write the names and function of different equipments used in microbiology lab
- Q2. What are the different chemical and physical methods of sterilization and disinfection?
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***SUBJECT: BASIC MICROBIOLOGY***

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**ANS1:**

*A modern microbiology laboratory should be furnished with the following equipment.*

### **1. Hot Air Oven for Sterilization:**

*It is used for sterilization of glassware's, such as test tubes, pipettes and petri dishes. Such dry sterilization is done only for glassware's.*

### **2. Drying Oven:**

*For preparation of certain reagents, the glassware's, after proper cleaning and rinsing with distilled water, are required to be dried. They are dried inside the drying oven at 100°C till the glassware's dry up completely.*

### **3. Autoclave:**

*Autoclave is the nucleus of a microbiology laboratory. It is used to sterilize glassware's, when required.*

### **4. Microbiological Incubator:**

*Profuse growth of microbes is obtained in the laboratory by growing them at suitable temperatures. This is done UNDER MICROBIOL INCUBATOR*

### **5. BOD Incubator (Low Temperature Incubator):**

*Some microbes are to be grown at lower temperatures for specific purposes. The BOD low temperature incubator (Figure 3.9), which can maintain temperatures from 50°C to as low as 2-3°C is used for incubation in such cases.*

### **7. Deep-fridge:**

*It is used to store chemicals and preserve samples at very low sub-zero temperatures.*

### **8. Electronic Top-pan Balance:**

*It is used for weighing large quantities of media and other chemicals, where precise weighing is not of much importance.*

### **9. Electronic Analytical Balance:**

*It is used to weigh small quantities of chemicals and samples precisely and quickly.*

### **10. Double-pan Analytical Balance:**

*It is used to weigh chemicals and samples precisely. Weighing takes more time, for which it is used in emergency only.*

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**ANS2:**

## **Physical sterilization and disinfection methods**

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- 1. Sunlight**
  - 2. Heat**
  - 3. Pasteurization**
  - 4. Inspissation**
  - 5. Inspissation**
  - 6. Vaccine bath**
  - 7. Filtration**
  - 8. Low-temperature steam formaldehyde sterilization (LTSF)**
  - 9. Ozone**
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## **Chemical strilization and disinfection methods**

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- 1. Alcohol**

***2. Aldehyde and formaldehyde***

***3. Glutaraldehyde***

***4. Phenol***

***5. Cresol***

***6. Chlorhexidine***

***7. Halogens***

***8. Oxidizing agents***

***9. Vapour phase disinfectants***

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