UNIT=1 Isolation & Preservation Method for Pure Culture

[DEPTH OF BIOLOGY]

* Isolation of Pure Culture ⇒

Contain only a single species of bacteria.

⇒ After form Culture media, Put it into the Conical flask / Test tube & pour into petridish & then closed in Incubation for 2 or 3 days Now Many bacteria are groun.

[DEPTH OF BIOLOGY]

Isolation is done by ⇒

- Streak plate Method.
- Spread plate Method.
- Pour plate Method.

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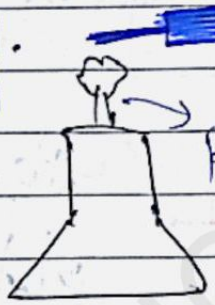
(9) Streak Plate Method ⇒

Streaking is a process of spreading the Microbial Culture with an inoculating Needle or Loop on the surface of the Media.

(1) → But first we sterilize the Inoculation needle by flame to Make Red Hot & allow it to cool for 30 second or few second.



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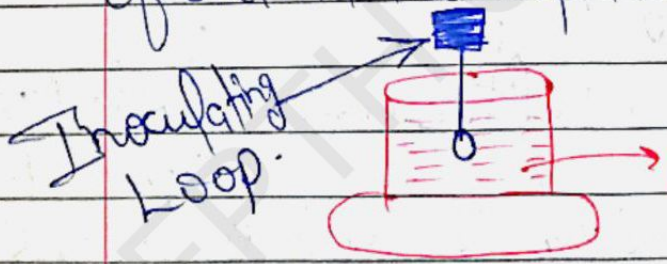
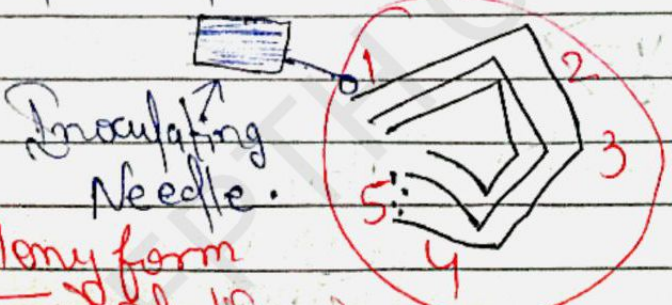
(2) Dip the Loop into a sample containing a mixture of bacteria the loop Pick Bacteria.



(3) Spread the Bacteria on the surface of Agar Plate



1 → Max. Growth of Bact.

5 → Min.

ताकि Colony form हो जाए आराम से Identify करो Bact. को

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(b) Pour Plate Method ⇒

(1) Bacteria Sample Mixed with Warm agar (45-50°C)

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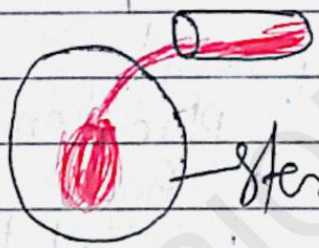
Step:

(2) Sample poured on Sterile Plate.



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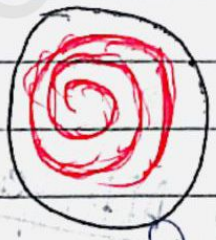
(3) Sample Swirled for Mix, allowed to solidify.



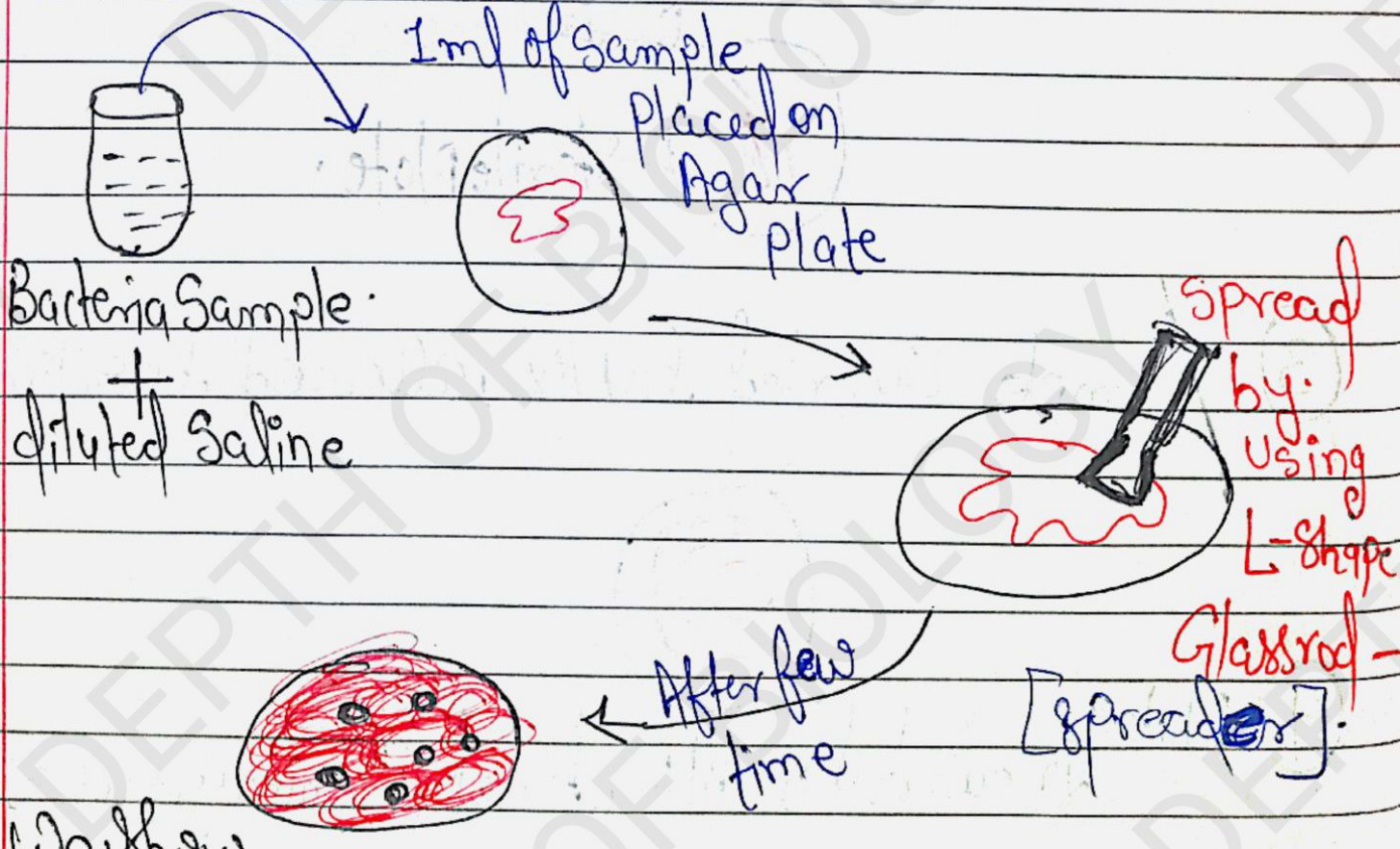
(4) Plate Incubated until Bacterial Colonies grow ⇒

[DEPTH OF BIOLOGY]

(c) Spread Plate techq. ⇒

Best Method to Isolate the Pure Colonies.

⇒ In this technique the culture media is not mixed with Agar Medium Instead it is Mixed with Normal diluted Saline



Preservation Method for Pure Culture ⇒

1. Culture Transfer → Contamination (नहीं होने पाये) (doesn't mix 2 culture)
   → Genetic change.

2. Refrigeration from 0 to 5°C → 2-3 days.

3. Low Temp. freezing → Ultra Low Temp. freezer (-80°C)
   → Liq. Nitrogen (-196°C)

4. Lyophilization ⇒
   - Freeze with dry Ice & Acetone
   - Use Glycerol or Sucrose to protect Cell.

5. Paraffin oil ⇒ It Makes a Surface / Layer on Culture Media. Now Bacteria or Microbes entry.