

B.Sc., CARDIAC TECHNOLOGY

FIRST YEAR

SUBJECT CODE & NAME – 1509 – MICROBIOLOGY

PUZZLES - TOPIC – STERILIZATION – MOIST HEAT METHODS

1. Brain Teaser Puzzle – 5 Marks

Objective: Recall temperature-based facts in a creative way.

Task: Identify the puzzle

Puzzle:

“I am gentle but powerful. At 63°C for 30 minutes, I protect milk. At 72°C for 15 seconds, I save time. Who am I and Which scientist discover me?”

Rubrics:

Criteria	Description	Marks
Correct answer	Identifies (Who and Which)	4
Mentions both methods	Identifies	1

2. Logic/Grid Puzzle – 5 Marks

Objective: Use logical deduction to match sterilization methods with their features.

Task: Complete the mini grid below using clues. Identify A, B, C, D and E.

Method	Temperature	Duration	Use
A	121°C	15 min	Surgical instruments
B	63°C	30 min	Milk
C	56°C	1 hr (several days)	Serum
D	100°C	10–20 min	Glassware
E	160°C	60 min	Metallic instruments

Clues:

- **Method A** uses steam under pressure.
- **Method B** gently heats milk to destroy pathogens without affecting taste or nutrients.
- **Method C** prevents protein coagulation.
- **Method D** cannot kill spores.
- **Method E** distribute the heat throughout the chamber

Rubrics:

Criteria	Description	Marks
Grid accuracy	All methods identified correctly	5