

**B.Sc., OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY**

**SECOND YEAR**

**SUBJECT CODE & NAME – 1136 - MICROBIOLOGY**

**PUZZLES - TOPIC – STERILIZATION – DECONTAMINATION**

**1. CLINICAL CASE STUDY: "The Outbreak in the CSSD" – 10 marks:**

*Case Scenario*

During a routine laparoscopic cholecystectomy, the **CSSD team** receives a set of contaminated instruments (forceps, trocars, scissors) visibly soiled with blood and tissue. The next surgery is scheduled in **45 minutes**. The hospital has:

- Working **autoclave**
- **Glutaraldehyde** solution (expired 2 days ago) and **70% alcohol**
- **HEPA-filtered ventilation** in CSSD
- **No hydrogen peroxide plasma sterilizer**

Q.No	Question (2 Marks Each)
1	What is the <b>first step</b> in decontaminating these instruments?
2	These instruments are used inside the abdomen. According to Spaulding classification, they are: A) Non-critical B) Semi-critical C) Critical D) Environmental
3	The expired glutaraldehyde is available. Should it be used for high-level disinfection? <b>Yes/No &amp; why?</b>
4	The autoclave cycle takes <b>30 minutes + 15 minutes cooling</b> . Can the instruments be ready in 45 minutes? <b>Yes/No and justify.</b>
5	Name <b>one future trend</b> from the document that could prevent such time-pressure issues in CSSD.

*Rubrics:*

Q.No	What Student Must Do	2 Marks	1 Mark	0 Mark
1	Name the <b>first step</b> in decontamination	Correct step	Vague or partial	Wrong or missing
2	Choose the <b>correct instrument category</b> (A/B/C/D)	Right option	—	Wrong option
3	Say <b>Yes/No</b> + give <b>one short reason</b> about expired chemical	Answer with reason	Only Yes/No	Wrong or no reason
4	Say <b>Yes/No</b> + show <b>time calculation</b>	Correct math	Only Yes/No or wrong math	Wrong answer
5	Name <b>one future trend</b> from the slides	Close match	Vague	Wrong or blank