

**2203230201040001**  
**EXAMINATION NOVEMBER 2024**  
**POST GRADUATE DIPLOMA IN MEDICAL LABORATORY**  
**TECHNOLOGY (FIRST SEMESTER)**  
**BASICS OF MICROBIOLOGY (THEORY) LEVEL-4**

[Time: As Per Schedule]

[Max. Marks : 70]

**Instructions:**

**1. Fill up strictly the following details on your answer book**

- a. Name of the Examination : **POST GRADUATE DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY (FIRST SEMESTER)**
  - b. Name of the Subject : **BASICS OF MICROBIOLOGY (THEORY)**
  - c. Subject Code No : **2203230201040001**
2. Sketch neat and labelled diagram wherever necessary.
  3. Figures to the right indicate full marks of the question.
  4. All questions are compulsory.

Seat No:

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Student's Signature

**Q.1 Answer in Short: (Any Seven)**

**14**

1. Which protein is present in flagella? Give examples of bacteria possessing peritrichous flagella.
2. What are selective media? Mention their use.
3. Define: Magnification & Resolution Power.
4. What is tyndallisation? Who gave this phenomena?
5. Give the composition of nutrient agar medium.
6. Enlist normal flora of mouth.
7. Give the use of dark field microscope.
8. What are membrane filters made up of? Give their use.

**Q.2 Attempt any TWO of the following:**

**14**

1. Give the contributions of Robert Koch in the field of Microbiology.
2. Define virus. Explain morphology of virus.
3. Enlist the types of parasites and hosts. Explain the relationship between the host and a parasite.

**Q.3 Write short notes on any TWO of the following: 14**

1. Phase contrast microscope: Principle and components.
2. Specimen preparation techniques for TEM.
3. Mordants.

**Q.4 Attempt any TWO of the following: 14**

1. Explain ionizing radiations as physical method of sterilization.
2. Mention the ideal characteristics of disinfectant.
3. Write a note on hot air oven.

**Q.5 Attempt any TWO of the following: 14**

1. Explain principle, composition & use of CLED agar.
2. Enlist the methods for bacterial isolation. Explain any one in detail.
3. Explain broth culture method.

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