

Roll No.

Total No. of Pages : 02

Total No. of Questions : 18

Pharm.D (Sem.-2)  
**PHARMACEUTICAL MICROBIOLOGY**

Subject Code : PD-202T-19

M.Code : 80143

Date of Examination : 13-07-22

Time : 3 Hrs.

Max. Marks : 70

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A contains SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

**SECTION-A**

**Write briefly :**

1. Write any four applications of Microbiology.
2. What is envelope in virus?
3. Name two gram positive bacteria.
4. Explain '*Heating to red hot*' as a method of sterilisation.
5. Define immunity.
6. Write signs and symptoms of dengue.
7. What is pour plate method, write its uses.

**SECTION-B**

8. Classify bacteria on the basis of oxygen, pH and temperature requirements. Add note on the effect of hyper and hypotonicity on bacteria.

9. Describe bacterial growth curve.
10. Write principle and procedure of Acid-fast staining.
11. Write briefly on various techniques used for identification of bacteria with emphasis on Biochemical tests?
12. Write the procedure of Redial Walker's co-efficient test.
13. Write the production, mechanism of action, demerits and applications of UV radiations.
14. Write a note on immunization programme.
15. Mention the causative organism, mode of transmission, signs and symptoms, diagnosis and treatment of Typhoid.

#### SECTION-C

16. Write principle and method of microbiological assay of vitamin B12 by titrimetric method.
17. Differentiate between gram positive and Gram negative cell wall. Add a note on principle and procedure of Gram's staining technique.
18. Write in detail the structure of different types of antibodies with neat labeled diagram.

**NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.**