

7404

4

(b) Explain the principle of BACTEC. Enumerate its advantages and uses. (6)

6. (a) Describe the effects of air pollution on human health. (4)

(b) Differentiate between a common source and progressive epidemic. (4)

(c) How can VITEK system be used for studying antibiotic resistance? (4)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 7404

L

Unique Paper Code : 2533012016

Name of the Paper : Microbial Diagnosis and Public Health Management

Name of the Course : **Microbiology**

Semester : VIII / Part-IV

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.

1. Define the following terms citing suitable examples
(any six) : (2×6=12)

(i) Orthozoonoses

7404

2

- (ii) Specificity
- (iii) Positive predictive value
- (iv) Bacteriocin
- (v) Endemic
- (vi) Reservoir
- (vii) Antibigram

2. Write short notes on the following **(any three)** :
(4×3=12)

- (i) Randomized Control Trials
- (ii) Disaster Management
- (iii) Phage Typing
- (iv) Contact Transmission of Disease

3. (a) Differentiate between the following **(any three)** :
(3×3=9)

- (i) Incidence and Prevalence
- (ii) Mortality and Morbidity

7404

3

- (iii) Anthroozoonoses and Zooanthroponoses
- (iv) Transport media and Culture media

(b) Discuss the precautions required for the collection of urine sample during the diagnosis of an infectious disease. (3)

4. (a) State true or false for the following statements citing suitable reasons for your answer.
(2×3=6)

- (i) Plasmid profile analysis can be used to correlate specific antibiotic resistance genes during disease outbreak.
- (ii) Normal microflora does not interfere with the isolation of pathogenic bacteria from an infected person.
- (iii) Herd immunity can provide protection to non-immunized individuals in a population.

(b) Explain the principle of MALDI-TOF with the help of a suitable diagram. (6)

5. (a) Describe the concept of one health and discuss the key areas of focus for one health. (6)

P.T.O.