

This question paper contains 2 printed pages]

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S. No. of Question Paper : 13453

Unique Paper Code : 2534001004

Name of the Paper : Microbes in Health and Hygiene

Name of the Course : Microbiology

Semester : VII (Part-IV)

Duration : 2 Hours

Maximum Marks : 60

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt any five questions:

All questions carry equal marks.

Attempt all parts of the question together.

1. Explain the following terms: 2×6=12
 - (a) Zoonotic disease
 - (b) Synbiotics
 - (c) Pseudomembrane
 - (d) Opportunistic infections
 - (e) Metagenomics
 - (f) Gnotobiotic animals.
2.
 - (a) Differentiate between Hepatitis A and B infection. 4
 - (b) How are molecular and sequencing techniques used for assaying the human microbiome ? 6
 - (c) How can typhoid be prevented ? 2

P.T.O.

3. Write short notes on (any *three*) :

4×3=12

- (a) Malaria
- (b) HIV
- (c) Bacteriophage therapy
- (d) Zika infection.

4. (a) What is the consequence of alteration in gut microflora and what health problems can it cause ? 3

(b) Write *two* control strategies for fungal infections. 3

(c) How do diet, age, and hygiene practices affect the human microbiome ? 6

5. (a) What are the comparative advantages and disadvantages of mice and zebrafish for studying the human microbiome ? 6

(b) What are desired characteristics of a probiotic strain ? 4

(c) What is MDR TB ? 2

6. Describe the symptoms and mode of transmission of the following diseases :
(any *three*) : 3×4=12

- (a) Tuberculosis
- (b) Polio
- (c) Aspergillosis
- (d) Kala azar.