

2020

## MICROBIOLOGY — HONOURS — PRACTICAL

Paper : CC-5P

Full Marks : 30

*The figures in the margin indicate full marks.*

- Write the basic principle and procedure of enumeration of bacteriophages from water sample using double agar layer technique. 4+4
- In an experiment bacteriophages were enumerated in a sewage treatment plant twice a year. The observations of the experiment are given in the table below.

Month of collection of sewage sample	Dilution	Vol. of sample plated (ml)	No. of plaques obtained
February	$10^{-3}$	0.1	290
	$10^{-4}$	0.1	96
	$10^{-5}$	0.1	34
August	$10^{-1}$	0.1	200
	$10^{-2}$	0.1	64
	$10^{-3}$	0.1	7

- Calculate the average phage titre value of the sewage sample for each month. 5×2
  - Compare the two titre values and comment. 2
- Lab manual and viva voce. 10
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