## SH-III/MCB-305-SEC-1/19

## B.Sc. 3rd Semester (Honours) Examination, 2019-20 MICROBIOLOGY

Course ID: 32215 Course Code: SH/MCB-305-SEC-1

Course Title: Microbiological Analysis of Air & Water

Time: 2 Hours Full Marks: 40

The figures in the right hand side margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

**1.** Answer *any five* of the following:

 $2 \times 5 = 10$ 

- (a) What is bio aerosol?
- (b) What is the disadvantage of chlorination of drinking water?
- (c) What is MPN test?
- (d) Differentiate xenobiotics from recalcitrants.
- (e) What is bio-remediation?
- (f) Give example of one air borne bacterial and one viral disease.
- (g) What do you mean by incineration?
- (h) Which pH is favourable for fungal growth?
- **2.** Answer *any four* of the following questions:

 $5 \times 4 = 20$ 

(a) Why Escherichia coli is considered as indication of pollution?

- 3+2=5
- (b) Describe how selective and differential medium facilitate the bacteriological analysis of water.
- (c) Write down different methods of water purification.
- (d) Write a short note about the role of UV light and HEPA filter to control microorganism.
- (e) Name one water borne bacterial disease. How it can be controlled?

1+4=5

(f) What is allergen? Describe the role of aeromicroorganisms in food industry.

1+4=5

**3.** Answer *any one* of the following questions:

 $10 \times 1 = 10$ 

(a) What is meant by sewage? Describe the different process of sewage treatment.

2+8=10

(b) Briefly describe different physical and chemical control measures of microbial diseases.

5+5=10