

M.Sc. 3rd Semester Examination, 2019

MICROBIOLOGY

PAPER —MCB-304 (CBCS)

Full Marks : 40

Time : 2 hours

Answer all questions

The figures in the right-hand margin indicate marks

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

Illustrate the answers wherever necessary

1. Answer any *four* questions : 2 × 4
- (a) What are aeroallergens ? Name two diseases that are transmitted by aerosol.
- (b) Define BOD.
- (c) What is bio-mining ?

- (d) What do you mean by activated sludge ?
- (e) Differentiate between direct and indirect bioleaching.
- (f) What is biodegradation ?
- (g) What is zoonotic diseases ? Cite example.
- (h) What is nosocomial infection ? Cite example.

2. Answer any *four* questions : 4 × 4

- (a) Write the advantages and limitations of biofertilizer. 2 + 2
- (b) What is MPN test ? State its utility. 2 + 2
- (c) Explain the process of biomagnification with suitable example. 4
- (d) What is STDs ? How bacterial STD differ from viral STDs. 2 + 2
- (e) State the role of microorganisms in reducing BOD values in waste water treatment. 4
- (f) How PCB is biodegraded ? 4

(g) What is portal of entry ? Write the name of two animal which are reservoirs of disease causing microbes ? Write the name of the microbes. 2 + 2

(h) Define : 2 + 2

(i) Biopesticide

(ii) Biodiesel with example.

3. Answer any *two* questions : 8 × 2

(a) Compare and contrast aerobic and anoxic means of secondary sewage treatment. Mention the advantages of vermicompost. 6 + 2

(b) What do you mean by alternative fuels ? Mention the generations of biofuel with example. How air pollutant can be controlled ? 2 + 2 + 4

(c) State the sign and symptoms of syphilis. Write a note on human papilloma viral infection. (2 + 2) + 4

(d) Write short notes on :

2 × 4

(i) Gonorrhoea

(ii) Solid waste treatment

(iii) Biosafety

(iv) Tertiary treatments.
