2019

B.Sc. (Hons.)

4th Semester Examination

MICROBIOLOGY

Paper—C9T

Full Marks : 40 Time : 2 Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

Group–A

1. Answer any *five* questions from the following : 5×2

(a) Define thermophilic bacteria. 2

(b) Define microaerophiles. 2

(c) What is meant by aerosol transmission of microbes ? Give example. 1+1

(d) What is cellulolytic bacteria ? Give example. 1+1

(e) Define *biosurfactant.* 2

(f) Define amensalism with example. 1+1

(g) Define composting. Name one anaerobic bacteria associated with composting. 1+1

(h) What is associative symbiosis ? 2

Group–B

2. Answer any *four* questions from the following : 4×5

(a) Elucidate the biochemical nature of N_2 fixation within the root modules with diagram.

(b) Give a brief idea of solid waste management. What is sanitary land fill technology ? 2+3

(c) What is meant by BOD ? Write the role of BOD in sewage treatment. 2+3

(d) Defie MPN test. What is the importance of coliforms in determining the potability of water ? 2+3

(e) Define commensalism. How is plant-microbe interaction beneficial to both the organisms—Give reasons to justify.

(f) Write the full form of PAH. How can microbes be degraded PAH ? 1+4

Group–C

3. Answer any *one* questions from the following : 1×10

(a) Describe briefly the role of extremophiles in modern microbiology and its developments. Enumerate your idea about tertiary sewage treatment. 6+4

(b) Elucidate the role of lignin degradation by microbes. How can it be utilized for commercial benefit. 8+2
