

Bachelor of Science (B.Sc.) Semester—III (C.B.S.) Examination

ENVIRONMENTAL SCIENCE

(Environmental Microbiology and Water Treatment)

Paper—II

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory.

(2) All questions carry equal marks.

(3) Illustrate your answers with suitable diagrams.

1. Discuss the sampling techniques and methods of isolation of air microorganisms. 10

OR

(a) Describe the function of microorganisms in soil. 5

(b) Explain the Multiple Tube Dilution Technique (MTDT) for enumeration of coliforms. 5

2. Discuss in brief the sources of water supply. 10

OR

(a) What are the types of service reservoirs ? 5

(b) Describe in brief the air borne diseases. 5

3. Discuss in brief the method of Sedimentation and coagulation in water treatment. 10

OR

(a) Explain the working of pressure filter with a neat sketch. 5

(b) Elaborate the terms : Plain, pre and post chlorination method. 5

4. Discuss in brief the lime soda and Zeolite process for removal of hardness in water. 10

OR

(a) Explain in brief the solar distillation method for water treatment. 5

(b) Describe the method of defluoridation of water. 5

5. Attempt any **ten** questions :

(i) Mention the effects of Aeroallergens on human beings.

(ii) What is Faecal coliforms ?

(iii) What is the full form of WHO ?

(iv) What is Epidemiology ?

(v) What is a significance of Environmental sanitation ?

(vi) Mention any one community sanitation measures.

(vii) What is a potable water ?

(viii) What is Flocculation ?

(ix) What is super chlorination ?

(x) Give the significance of Nalgonda technique.

(xi) What is desalination of water ?

(xii) What is demineralization of water ?

1×10=10