

AQ – 2691

Fourth Semester M. E. Civil. (Env. Engg.) CBS Examination

ENV. SANITATION AND SOLID WASTE MANAGEMENT

Paper - 4 SCEE 2

P. Pages : 2

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) Separate answer book must be used for each section in the subject Geology. Engineering material of civil branch and separate answer-book must be used for Section A & B in Pharmacy and Cosmetic Tech.
- (2) All question carry marks as indicated.
- (3) Answer **Three** questions from Section A and **Three** questions from Section B.
- (4) Assume suitable data wherever necessary.
- (5) Use pen of Blue/Black ink/refill only for writing the answer book.

SECTION A

1. (a) Explain the concept of Environmental sanitation in rural areas. 6
- (b) What is the scope of sanitation in rural areas. 7
2. (a) What are the principles involved in the protection of public health by engineering measures to control the environment in rural water supply. 7
- (b) Explain 'aqua privy' with neat sketch in detail. 6
3. (a) What are the methods of communicable diseases control ? 6
- (b) Write in detail the lifecycle of mosquito. 7
4. (a) Explain in brief essentials of milk sanitation. 7
- (b) Write in detailed about pasteurization of milk. 7
5. Explain essential aspects of sanitation of hospital. 14

AQ – 2691

P.T.O.

SECTION B

6. (a) Define solid waste management and discuss the functional elements of solid waste management. 7
- (b) What are the sources and location of solid waste generation ? 6
7. Write in detailed about characteristics of solid waste which related to physical, chemical and biological analysis. 14
8. The following average speeds were obtained, for various round-trip distances to a disposal site find the haul-speed constant a and b and round trip haul time for a site that is located 12.00 km away.

Round-trip distance (x),m/trip	Average haul speed (y), m/hr
0.9	12
2.5	21
5.0	30
7.5	34
10.00	37.5
12.50	38.00
15.00	39.50
17.50	29.80
20.00	40.00

14

9. Discuss the system, equipment and labour requirement for solid waste collection. 13
10. (a) Explain in detail the factors affecting composting process. 6
- (b) Explain the mechanical method of composting. 7