

M.E. Fourth Semester (Civil (Environmental Engineering)) (CBS)

13404 : Environmental Sanitation & Solid Waste Management : 4 SCEE 2

P. Pages : 1

AU - 3219

Time : Three Hours



Max. Marks : 80

- Notes :
1. Answer **three** question from Section A and **three** question from Section B.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION – A

1. Explain in detail with the help of neat sketches:- 14
 - a) Aqua privy.
 - b) Bore hole privy.
2. Describe the life cycle of the mosquito parasite responsible for the malaria diseases. 13
3. Write in detailed about swimming pool safety provision and chemical & physical quality & standards. 13
4. Explain the essential aspects to sanitation of hospital. 13
5. Write in brief about the following.
 - a) Communicable Diseases & Epidemic. 4
 - b) Importance of Environmental sanitation. 5
 - c) Causes of food poisoning. 5

SECTION – B

6. Write in detailed about characteristics of solid waste which related to physical, chemical and biological analysis. 14
7.
 - a) What are the sources and locations of solid waste generation. 6
 - b) Discuss the functional elements of solid waste management. 7
8.
 - a) Distinguish between density and magnetic separation.
 - b) Explain various factors affecting for composting process.
9. The following average speeds were obtained for various round trip distances to a disposal site find haul speed constants 'a' and 'b' and round trip haul time for a sit located 14km away. 13

Round trip distance (x) km/trip	3	5	9	12	16	20	25
Avg. haul speed (y) km/hr.	18	28	32	36	40	42	46

10. Explain Mechanical method of composting. Draw the flow chart. 14
