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10CV666

Sixth Semester B.E. Degree Examination, June/July 2018
Rural Water Supply and Sanitation

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART - A

- 1 a. Discuss the investigation for selection of water sources for Rural Water Supply. (06 Marks)
b. List the water borne diseases and their controlling measures. (08 Marks)
c. Discuss the health significance and desirable permissible limits of the following parameters
i) Fluoride ii) Nitrate iii) Sulphate iv) Chloride. (06 Marks)
- 2 a. Define disinfection. Explain the various methods of disinfection. (10 Marks)
b. Mention the various methods of defluoridation and explain any two methods. (06 Marks)
c. Explain the sources of Ground water contamination. (04 Marks)
- 3 a. Explain the following : i) Two pit Latrines ii) Aqua privy. (10 Marks)
b. Design a septic tank for the following data :
i) No. of people = 100 ii) Sewage/Capita/day = 120 litres.
iii) Desludging period = 1 year iv) Length to width ratio of septic tank = 4:1.
v) Detention period = 24 hours vi) Rate of sludge deposited = 30 litres/capita/day
vii) Depth of septic tank = 1.5m
viii) Per colation rate = 1250 $\ell/m^3/day$ ix) Depth of soak pit = 2m. (10 Marks)
What would be the size of soak well?
- 4 Write short notes on :
a. Storm water and sullage disposal.
b. Rain water harvesting.
c. Public Latrine.
d. Composting. (20 Marks)

PART - B

- 5 a. Explain different methods of communication of communicable diseases with examples. (10 Marks)
b. Define the communicable diseases and explain the general methods of control of communicable diseases. (10 Marks)
- 6 a. Explain the following terms :
i) Refuse ii) Garbage iii) Rubbish iv) Ashes. (08 Marks)
b. Describe the following methods of disposal :
i) Dumping ii) Land filling iii) Salvaging. (06 Marks)
c. Explain with sketch, bio - gas plant. (06 Marks)
- 7 a. Explain all the essentials necessary to obtain the objectives of milk sanitation. (08 Marks)
b. Describe the important points to be considered for planning the construction of a cow shed. (04 Marks)
c. Discuss the milk pasteurization. (08 Marks)
- 8 a. Explain the life cycle of a House fly. (08 Marks)
b. Explain the various Fly control measures in detail. (08 Marks)
c. Mention the diseases transmitted by the mosquito. (04 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.