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10CV666

Sixth Semester B.E. Degree Examination, Dec.2018/Jan.2019
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. Explain the factors to be considered in the selection of water in formulating a rural water supply project. (06 Marks)
b. List and explain different types of water borne diseases with precautionary measures to be taken to control the water borne diseases. (08 Marks)
c. Explain the health significance of the following drinking water quality parameters along with desirable and permissible limits :
i) Fluoride ii) Chloride iii) Hardness iv) pH. (06 Marks)
- 2 a. Enumerate the different methods of disinfection of water and explain the process disinfection of water by chlorination and its advantages. (08 Marks)
b. With neat sketch, explain Nalagonda technique for removal of fluoride. (06 Marks)
c. Explain the lime soda process of hardness removal with necessary chemical reactions. (06 Marks)
- 3 a. What are main objectives of Rural sanitation in villages? Explain in brief. (08 Marks)
b. With the aid of neat sketch, explain following types of latrines :
i) Pit Privy ii) Aqua Privy. (12 Marks)
- 4 a. Explain the methods of rain water harvesting in rural areas with its objectives. (10 Marks)
b. Explain the disposal of storm water and sullage disposal in rural areas. (10 Marks)

PART - B

- 5 a. Define Communicable diseases and give their classification. (10 Marks)
b. Define : i) Infection ii) Epidemic. (04 Marks)
c. With neat sketch, discuss "Epidemiologic cycle of the control of communicable diseases". (06 Marks)
- 6 a. Explain briefly, two major collection and transport of refuse : (10 Marks)
i) Hauled Container System (HCS) ii) Stationary Container System (SCS).
b. List and explain in brief refuse (or) garbage disposal methods. (10 Marks)
- 7 a. Define Pasteurization. Explain the methods of Pasteurization, with neat sketches. (12 Marks)
b. Explain briefly on :
i) Cattle borne diseases ii) Cow shed planning. (08 Marks)
- 8 a. Explain the life cycle of a mosquito, with neat sketch. (06 Marks)
b. Explain in brief diseases transmitted by mosquitoes. (08 Marks)
c. Explain various Fly control measures. (06 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.