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10CV666

Sixth Semester B.E. Degree Examination, Dec.2017/Jan.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. What is the need for protected water and supply? What are the points to be considered while selecting the source of water for rural water supply? (08 Marks)
- b. List the water borne diseases. Explain their controlling measures. (06 Marks)
- c. Mention the BIS drinking water quality standards for the following water quality parameters
 i) p^H ii) Total hardness iii) Chlorides iv) Nitrates v) Fluorides
 vi) Sulphates. (06 Marks)
- 2 a. What are the factors to be considered while selection of a particular type of pump for rural water supply. (06 Marks)
- b. Define : i) Disinfection ii) Defluoridation iii) Hardness iv) Chlorination. (04 Marks)
- c. Explain the following : i) Nalgonda technique ii) Lime – Soda process. (10 Marks)
- 3 a. Explain the concept of Eco - Sanitation. (04 Marks)
- b. Write a neat sketch of : i) Aqua privy ii) Soak pit. (08 Marks)
- c. With a neat sketch, explain the working of a Septic tank. (08 Marks)
- 4 a. Differentiate between : i) Conservancy system and Water carriage system ii) Separate system and Combined system. (10 Marks)
- b. What is Rain water Harvesting? Discuss the methods of Rain water harvesting. (10 Marks)

PART – B

- 5 a. Explain : i) Classification of communicable diseases ii) Mode of transmission. (14 Marks)
- b. Explain general methods of Control of Communicable disease. (06 Marks)
- 6 a. List and explain Refuse disposal methods. (10 Marks)
- b. Draw a typical sketch of Biogas plant and explain its working. (10 Marks)
- 7 a. Discuss the different objectives of milk sanitation. (05 Marks)
- b. Explain tests for milk quality determination. (05 Marks)
- c. Explain the following : i) Cattle borne diseases ii) Planning for a cow shed. (10 Marks)
- 8 a. Explain the life cycle of housefly and mosquito. (12 Marks)
- b. Discuss the diseases transmitted by house fly and mosquito and their control measures. (08 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.