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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Sixth Semester, B.E. - Civil Engineering

Semester End Examination; June - 2016

Municipal and Rural Sanitation

Time: 3 hrs

Max. Marks: 100

Note: i) Answer FIVE full questions, selecting ONE full question from each unit.

ii) Missing data if any, may suitably assumed.

UNIT - I

- 1 a. Define the terms :
- | | | |
|-----------------|--------------|-------------------|
| i) Epidemiology | ii) Epidemic | |
| iii) Endermic | iv) Pandemic | 10 |
| v) Exotic | vi) Sporadic | vii) Surveillance |
- b. Explain the different modes of transmission of communicable diseases. 10
- 2 a. Explain the methods of controlling communicable diseases. 10
- b. Discuss the diseases transmitted by house fly and mosquito. Also mention their control measures. 10

UNIT - II

- 3 a. In a tabular form, indicate the drinking water quality standards as per BIS (IS – 10500-2003). 10
- b. What is the necessity for a protective water supply scheme? What are the governing factors to be kept in mind for selecting a water source? 10
- 4 a. Under what circumstances, pumping of water is practiced? Give the classification of pumps. What are the factors on which their selection depends? 10
- b. Explain the working of hydraulic ram with merits and demerits. 10

UNIT - III

- 5 a. With a neat sketch, explain the septic tank and a soak pit used for the disposal of sewage in a rural community. 10
- b. Define the term “Rain water harvesting”. With the aid of a neat sketch, explain how the rainwater is harvested from roof top. 10
- 6 a. With neat sketches, explain the following methods of night soil disposal : 10
- | | |
|---------------|------------------------|
| i) Aqua privy | ii) Two - pit latrine. |
|---------------|------------------------|
- b. Enumerate the different methods of recharging ground water. Explain any two. 10

UNIT - IV

- 7 a. Explain the types of collection and transportation systems adopted for refuse disposal based on mode of operation. 10

