

B.Tech. First Year IInd Semester 2008

Basic Civil Engineering & Environmental Science

Date – 1/5/2008

Max. Marks - 50

- Q.1 Write short notes (any three) (6)
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|-------------------------|---------------------------|
| (a) Nitrogen Fixation | (b) BOD/COD ratio |
| (c) Anionic Surfactants | (d) Atmospheric Stability |
- Q.2 (a) What is the significance of water pollution laws and standards? Write down the drinking water standard for MBAS (anionic surfactants) & BOD. (3)
- OR
- (a) Describe the plume behavior. On what factors it depends. Give sketch of different types of plumes. (3)
- (b) What is solid waste? Define garbage and rubbish. Explain composting with a neat figure. (4)
- OR
- (b) What is rain water harvesting? Describe a neat diagram of the scheme of rain water harvesting in shopping malls. What are the precautions for that? (4)
- Q.3 (a) What is the use of queen closer ? (1)
- (b) Give properties and use of Ordinary Portland Cement (2)
- OR
- (b) Differentiate PCC with RCC. (2)
- (c) Explain along with neat sketch English bond OR Flemish bond. (3)
- (d) Explain Grillage foundation with neat sketch. (3)
- OR
- (d) Explain the raft foundation with neat sketch. (3)
- (e) What are the different criteria for the selection of proper flooring. (2)
- (f) Explain with neat sketch King Post Truss OR Queen Post Truss. (3)
- Q.4 (a) What is leveling staff ? Discuss different types of leveling staves. (3)
- (b) Explain the methods of reducing the levels and their relative advantages and disadvantages. (3)
- OR
- (b) What are the temporary adjustments of a dumpy level. (3)