

MRSPTU
BABA BANDA SINGH BAHADUR ENGG. COLLEGE,
FATEHGARH SAHIB
ASSIGNMENT NO.1

Sub: EE-I (BCIE1-412)

1. What is importance of fire fighting water demand and how is it measured.
2. Explain the different methods of population forecasting of a city for which a water scheme is to be planned.
3. Write a short note on infiltration galleries.
4. What do you mean by ground water potential? Explain the water potential of water resources in India.
5. How will you determine loss of head in a pipe?
6. What is an intake structure? What points should be considered while designing an intake?
7. What is meant by pumping? Why it is so important now days?
8. Write the principle & working of centrifugal pump.
9. What are pump operating curves?
10. How do you evaluate head, power and efficiency of a pump?
11. Define design period. How is it decided in a water supply scheme planning?
12. What is meant by fluctuations in demand? How is this information used for balancing tank design?
13. What is meant by economical diameter of a rising main?
14. List the different types of pumps used in water supply. Give the suitability and criteria for choosing the pumps
15. Distinguish clearly between water quality criteria and standards. Critically examine the use of MPN as bacteriological water quality standard.
16. What are the sources of water used in water supply scheme? Compare their suitability with respect to quality and quantity.
17. Although conductivity does not have a water quality standard, it is considered as a parameter to assess water quality. Why?
18. What are common impurities found in natural water and explain its effect on the quality?
19. Discuss in detail about population forecasting methods. What is logistic curve method?
20. Discuss in detail physical & chemical water quality parameters?

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ASSIGNMENT NO.2

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1. Give any four factors on which the coagulant dose depends
2. What is the biological purification mechanism involved in a slow sand filter?
3. What is meant by rain water harvesting?
4. What are the factors which induce corrosion of water supply pipes? Discuss the various corrective treatments to prevent it.
5. Differentiate between desalination and demineralization.
6. Discuss about: i) Slow & Rapid sand filtration ii) Base-ion process.
7. Fluoridation & de-fluoridation.
8. Double filtration & In-depth filtration.
9. Water softening & Stabilisation.
10. What is disinfection? What are good qualities of a good disinfectant? What are different factors affecting disinfection? Explain different methods of disinfection?
11. Pre-chlorination & Aeration.
12. What are different types of joints in pipes? Explain with neat & clean sketches.
13. What are different types of water distribution system?
14. Distinguish between continuous and intermittent water supply system.
15. Explain mass-curve & area-elevation method.
16. What are different types of Reservoirs?
17. Explain Hardy-cross method.
18. What are objectives of water supply system? Give the design criteria of a rural water supply system.
19. Explain briefly about pressure and gravity distribution system.
20. Difference between permanent & temporary hardness.