

KADI SARVA VISHWAVIDYALAYA

B.E.(Civil Engg.) Semester – VI, Final Examination, April-2015

Subject Code: CV604

Subject Name: Environmental Engineering-II

Date: 6-5-2015

Time: 10:30 to 1:30

Total Marks: 70

Instructions:

1. Answer each section in separate Answer Sheet.
2. Use of scientific Calculator is permitted.
3. All questions are compulsory.
4. Indicate **clearly**, the options you attempted along with its respective question number.
5. Use the last page of main supplementary for rough work.

Section - 1

Q.1 All Compulsory:

- (a) Enlist the physical, chemical and biological characteristics of wastewater and discuss the environmental significance of pH. (5)
- (b) Explain daily variation of sewage flow. How will you estimate the wastewater discharge for a wastewater treatment plant? (5)
- (c) State different pollutants in industrial waste water and explain briefly their effects. (5)

OR

- (c) State different processes for the treatment of industrial waste water and explain equalization process. (5)

Q.2 Answer the following question:

- (a) Explain the DO Sag curve with sketch. (5)
- (b) Why biological treatment is necessary? List out various biological treatments for wastewater. (5)

OR

- (a) Enlist various sewer appurtenances and write short note on Manhole. (5)
- (b) Discuss the soak pit arrangement as a low cost sanitation system for a house. (5)

Q.3 Answer the following question:

- (a) Explain Trickling Filter process with sketch. (5)
- (b) Explain the sludge Drying Bed. (5)

OR

- (a) Explain Activated sludge process with sketch. (5)
- (b) Explain the sludge digestion process. (5)

Section - 2

Q.4 All Compulsory:

- (a) What are the sources of various environmental contaminants? (5)
- (b) Classify the waste based on their nature. (5)
- (c) State and explain the characteristics of waste from a Textile industry (5)

OR

- (c) What are the points to be considered when disposal of treated waste water into Inland surface water? (5)

Q.5 Answer the following question:

- (a) Describe principles of house drainage system. (5)
- (b) Explain a typical house drainage plan with neat sketch. (5)

OR

- (a) Define & Explain: (i) Vent Pipe (ii) Wastewater (iii) House drainage system (5)
- (b) Describe & explain various types of traps. (5)

Q.6 Answer the following question:

- (a) What is Solid Waste Management? Classify the solid waste. (5)
- (b) Describe briefly various methods of collection of solid waste (5)

OR

- (a) Write short note on "Composting". (5)
- (b) Describe characteristics of solid waste. (5)

----- All the Best -----