

Major: CEL879: Industrial Waste Management

Date: 2nd May 2008

Max Marks: 100

Time: 2 hr

- Q1 (a) How the 'waste' is defined for audit purposes? (5)
(b) What is waste audit? (6)
(c) Name different 'phases' in 'Step by Step Approach' to carry out waste audit? (7)
(d) True or False: (2)
i. 'Audit preparation is a process in Phase-3' of audit process
ii. 'Process input and Process output are steps in Phase-1' of audit process.
iii. 'Evaluate waste reduction options' is a step in Phase-3 of audit process.
iv. 'Derive a material balance' is a step in Phase-2 of audit process.
- Q2 (a) Draw a diagram showing typical components of material balance? (6)
(b) What is 'Net Input'? (2)
(c) What are the components of 'Process Output'? List them only. (5)
(d) What is Photocatalysis? Name the mostly used Photocatalyst? (7)
- Q3 True or False?
i. Contact time in Trickling Filter is more than ASP. (5)
ii. The 'Slime' layer contains matter in either 'suspended' or 'colloidal' forms. (5)
iii. Zoogeal mass is 'Floc Concentration'. (5)
iv. Aerobic degradation of protein gives Phenol as end product. (5)
- Q4 (a) Differentiate between 'Lyophilic' and 'Lyophobic' Colloids? (10)
(b) How generation of 'eddies' in settling tank affect its efficiency of settling? (10)
How these 'eddies' are produced in a settling tank?
- Q5 (a) Describe category 'A' Environmental Assessment process with its attributes? (15)
(b) Differentiate between 'Industrial Waste' and 'Sewage Waste'? (5)