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Question Paper Code: 50091

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

One Credit

Chemical Engineering

15UCH870 - WASTE RECYCLING FROM PULP AND TEXTILE MILLS

(Regulation 2015)

Duration: Three hours

Maximum: 30 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Removal of pathogens from wastewater is
 - Preliminary treatment
 - Primary treatment
 - Secondary treatment
 - Tertiary treatment
- BOD is
 - Biochemical oxygen demand
 - Chemical oxygen demand
 - Total oxygen demand
 - None of these
- Ionic strength of a solution is a measured of concentration of
 - Dissolved chemical constituents
 - Dissolved inorganic constituents
 - Dissolved biological constituents
 - Dissolved physical constituents
- A filtration step is used to separate the total suspended solids from
 - Total volatile solids
 - Total fixed solids
 - Total dissolved solids
 - volatile suspended solids
- Absorbance is denoted by
 - $\log(I_0/I)$
 - $\log(I/I_0)$
 - $\log(P_0/P)$
 - $\log(P/P_0)$
- Aerobic digestion is a process happens in
 - Presence of oxygen
 - absence of oxygen
 - Presence of nitrogen
 - Presence of inertgases

7. Aerobic digestion and nitrification stops when the temperature rises above
(a) 15°C (b) 20°C (c) 50°C (d) 70°C
8. Trace quantities of metals such as cadmium, chromium are classified as
(a) Primary pollutants (b) priority pollutants
(c) Secondary pollutants (d) Tertiary pollutants
9. Surfactant is a typical example for
(a) Biodegradable organics (b) Dissolved inorganics
(c) Heavy metals (d) Refractory organics
10. Brain damage is a cause of presence of
(a) Cadmium (b) Barium (c) Selenium (d) lead

PART - B (20 x 1 = 20 Marks)

11. (a) (i) What are the parameters analyzed in waste water from paper industry. (10)
(ii) Explain the activated sludge process with a neat diagram. (10)
- Or
- (b) (i) Explain the anaerobic digestion process. (10)
(ii) What are the parameters analyzed for a effluent from a textile mill. (10)
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