Diploma / Integrated B.Tech 4th Semester (CE) Examination
June, 2014
Water Supply & Waste Water Engineering
Subject Code: CEL-034

Time Allowed: 03 hours. Maximum Marks: 100

Before answering the question paper the candidate should ensure that they have been supplied the correct question paper. Complaints in this regard, if any, shall not be entertained after the examination.

Note: Question No. 1 is Compulsory and attempt two questions from each section. All questions carry equal marks.

1(a) What is impact of suspended solid?
(b) What is alkalinity?
(c) Why the treatment of water is required?
(d) What is cascade aerator? [5 x 4 = 20]

SECTION-A

2(a)(i) How we can measure the colour of water and its permissible limit? [5]
(ii) Explain taste and odour. [5]
(b) How we can measure the hardness and what is the degree of hardness? [10]

3(a)(i) What are the impact of PH in water? [5]
(ii) What is hardness? [5]
(b) Explain neplometer in detail. [10]

4(a) What is sedimentation process write its types also? [10]

5(a) What is backwashing? [10]
(b) What are the coagulant used for coagulation? Explain them. [10]

6(a) What is primary sedimentation tank? [10]
(b) Explain the types of micro organism present in waste water. [10]

7(a) Explain trickling filters. [10]
(b) Explain the septic tank in detail. [10]

(b) If a sample of water content 210 gm of CO$_3^{2-}$, 122 gm of HCO$_3^{-}$ & 68 gm of OH$^-$ ion find the alkalinity of water & expressed at calcium carbonate? [10]