PVP 14

Code: CE6T4

III B.Tech - II Semester – Regular/Supplementary Examinations
AUGUST - 2021

ENVIRONMENTAL ENGINEERING-II
(CIVIL ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

a) List different water carriage systems of sewage.
b) Write important formulae for storm water estimation.
c) Define BOD.
d) What are the functions of screen and grit chamber?
e) Write three points on low rate trickling filter.
f) Define SVI.
g) Define self-purification process.
h) What is meant by digestion of sludge?
i) Write three characteristics of municipal solid waste.
j) Define engineered system for solid waste management.
k) Draw siphon diagram.

PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Explain the role of various sewer appurtenances in the process of conveyance of sewage. 8 M

   b) A city having catchment area of 800 acres and population density of 200 persons per acre is supplied with water at the rate of 150 litres per capita per day. The intensity of rainfall is 40mm/hour and average runoff coefficient is 0.60. Determine Dry weather flow and wet weather flow. 8 M

3. a) Write a short note on carbon, sulphur cycles of decomposition. 8 M

   b) Explain various stages of conventional sewage treatment plant with schematic flow diagram. 8 M

4. a) Explain briefly about the various steps involved in activated sludge process. 8 M

   b) Explain with the help of a neat sketch the process involved in working of a trickling filter. 8 M

5. a) Justify the self-purification of stream with the help of atmospheric factors. 8 M

b) Explain the methods of sludge disposal. 8 M

6. a) List collection equipment and collection routes and methods of collection for municipal solid waste. 8 M

b) Write a note on the recycling and energy recovery methods in solid waste management. 8 M