

S.No. : 277

BCE 3602

No. of Printed Pages : 03

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 33124

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B. Tech. Examination 2021-22

(Even Semester)

ENVIRONMENTAL ENGINEERING-II

Time : Three Hours]

[Maximum Marks : 60

Note :- Attempt all questions.

SECTION – A

1. Attempt all parts of the following :

$8 \times 1 = 8$

- (a) Write full form of BOD and COD.
- (b) Zero hardness of water is achieved by.....
- (c)method help in disinfecting water.
- (d) Define coagulation.
- (e) Activated sludge process is an example of..
- (f) Which method is used to forecast of old and very large city?

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- (g) As per IS 1050-1991, maximum lead content allowed in drinking water is.....mg/l.
- (h) What is the detention time of grit chamber?

SECTION – B

2. Attempt any two parts of the following : $2 \times 6 = 12$
- (a) Discuss the working of intermittent sand filter.
- (b) Discuss any two types of sludge disposal.
- (c) Determine ultimate first stage BOD for a waste water having 5 day BOD at 20°C as 160 mg/l. Assume de oxygenation at 20°C as 0.2 per day.
- (d) Explain factor affecting storm water flow.

SECTION – C

Note:- Attempt all questions. Attempt any two parts from each questions. $8 \times 5 = 40$

3. (a) Define self cleansing velocity and its significance.
- (b) Differentiate between dry weather flow and wet weather flow.
- (c) Explain oxidation ditch with a neat sketch.

4. (a) Write notes on sludge thickening.
(b) Explain the working of an automatic flush tank.
(c) Explain sludge volume index.
5. (a) What are the disadvantage of oxidation pond?
(b) Discuss any two draw backs of UASB.
(c) Define sludge disposal.
6. (a) Explain the working of sludge blanket reactor.
(b) Define aerated lagoon
(c) Explain in short about the role of micro organisms in waste water treatment.

