

Roll No.

Total Pages : 03

J-21-0072

B. Tech. EXAMINATION, 2021

Semester VI (CBCS)

ENVIRONMENTAL ENGINEERING-II

CE-603

Time : 2 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within 20 pages only (A4 size sheets/assignment sheets), no extra sheet allowed. The candidates should write only on one side of the page and the back side of the page should remain blank. Only blue ball pen is admissible.

Note : Attempt *Four* questions in all, selecting *one* question from any of the Sections A, B, C and D.
Q. No. **9** is compulsory.

Section A

1. Draw various kinds of sections of sewer used in sewerage giving their sketches. Comment on their hydraulic properties. **15**

2. What is Wastewater Composition ? Enumerate and explain different types of chemical parameters of wastewater. **15**

Section B

3. Define the secondary treatment of sewage. Explain the principle involved in the sewage purification of trickling filter process with diagram. **15**
4. Explain the following units : UASB reactor and Imhoff tank. **15**

Section C

5. Write in detail about laying, jointing and testing of sewers. **15**
6. Write short notes on the following : **15**
- (a) Gully trap and S-trap
 - (b) Anti-siphonage pipe
 - (c) One pipe system and two pipe system of plumbing.

Section D

7. Write a short note on the self-purification of streams ? Compare between stream water dilution and sea water dilution. **15**
8. Describe terms generation, onsite storage and collection used in solid waste management. **15**

(Compulsory Question)

9. (a) What do you mean by the sewage, sullage, sewerage and sewerage system ?
- (b) Define Primary Sewage Treatment. What are the objectives of primary sewage treatment ?
- (c) Explain different types of physical characteristics of wastewater.
- (d) Classify different types of sewage treatment.
- (e) Give a short note on sewage farming. **1½×10=15**