

1033**Code : 15CE-42T**Register
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IV Semester Diploma Examination, April/May-2017**SANITARY ENGINEERING****Time : 3 Hours]****[Max. Marks : 100**

- Note :** (i) Answer any **six** questions from Part-A. Each question carries **5** marks.
(ii) Answer any **seven** questions from Part-B. Each question carries **10** marks.

PART – A

1. Define Sewer, Invert, Refuse, Sullage & Sewage. 5
2. Explain merits and demerits of Separate system. 5
3. Write a note on Physical test of sewage. 5
4. Define Sanitary Sewage and list the factors affecting sanitary sewage. 5
5. Write the object of sewage treatment. 5
6. Write the advantage and disadvantage of sewage disposal on land. 5
7. Explain the requirements of Good water closet. 5
8. Explain the causes of Air pollution. 5
9. Explain the effects of Noise on human life. 5

PART- B

10. (a) Compare conservancy and water carriage system. 5
(b) Determine the diameter of a circular sewer to carry sewage of 120 lt/sec when flow is half full with a slope of 1 in 200 using Manning's formula.
Take $N = 0.01$. 5

11. Write the significance of the following terms in sewage analysis : 10
- (a) BOD
 - (b) COD
 - (c) pH value
 - (d) Dissolved oxygen
 - (e) Chlorides
12. With a neat sketch explain Deep Manhole. 10
13. With a neat sketch explain construction and working of septic tank. 10
14. With the help of flow diagram explain Activated sludge process. 10
15. With a neat sketch explain sludge digestion tank. 10
16. Explain with sketches : 10
- (a) Floor traps
 - (b) Gully traps
17. With a sketch explain electrostatic precipitator. 10
18. Explain inspection & maintenance of house drainage system. 10
19. Explain principles and requirement of Building drainage. 10
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