

Program: BE CIVIL Engineering
Curriculum Scheme: Revised 2012
Examination: Third Year Semester VI

Course Code: CEC605 and Course Name: Environmental Engineering-I

Time: 1 hour

Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

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| Q1. | Which of the following is infectious waste |
| Option A: | Biomedical waste |
| Option B: | Agricultural waste |
| Option C: | Commercial waste |
| Option D: | Domestic waste |
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| Q2. | This type of waste collection system used in congested area |
| Option A: | Set out- set back system |
| Option B: | Alley system |
| Option C: | Curb side collection system |
| Option D: | Backyard collection system |
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| Q3. | Toxicity is the----- characteristics of solid waste |
| Option A: | Physical |
| Option B: | Chemical |
| Option C: | Biological |
| Option D: | Hazardous |
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| Q4. | Completion of composting process is checked by----- |
| Option A: | MNK value |
| Option B: | NPK value |
| Option C: | CNK value |
| Option D: | DMK value |
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| Q5. | Turbidity in the water is caused due to |
| Option A: | total solid |
| Option B: | suspended solid |
| Option C: | dissolve solid |
| Option D: | fixed solid |
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| Q6. | The reduction of carbon dioxide by cascade aerators is in the range of |

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| Option A: | 20-30% |
| Option B: | 40-50% |
| Option C: | 50-60% |
| Option D: | 60-70% |
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| Q7. | The detention period of a rectangular sedimentation tank is given by _____ |
| Option A: | $t = LBH/Q$ |
| Option B: | $t = LB/HQ$ |
| Option C: | $t = Q/LBH$ |
| Option D: | $t = HQ/LB$ |
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| Q8. | Detention time for plain sedimentation usually ranges between |
| Option A: | 4-8 hrs |
| Option B: | 4-6 hrs |
| Option C: | 2-4 hrs |
| Option D: | 8-10hrs |
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| Q9. | What is formed when coagulant is added to water? |
| Option A: | Scum |
| Option B: | Soap |
| Option C: | Bubbles |
| Option D: | Floc |
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| Q10. | The clear distance between the paddles and the wall or the floor of the flocculator tank is about _____ |
| Option A: | 5 - 10 cm |
| Option B: | 10 - 20 cm |
| Option C: | 15 - 30 cm |
| Option D: | 20 - 40 cm |
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| Q11. | This coagulant is costlier than alum and generally avoided for treating ordinary public supplies |
| Option A: | Copperas |
| Option B: | ferric chloride |
| Option C: | ferric chloride |
| Option D: | sodium aluminate |
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| Q12. | Increasing the ____ of water often enhances the effect of coagulant |

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| Option A: | Detention Time |
| Option B: | Alkalinity |
| Option C: | Flash mixing |
| Option D: | Baffles |
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| Q13. | Zeolite process is used for removal of |
| Option A: | Hardness |
| Option B: | Colour |
| Option C: | Odour |
| Option D: | Acidity |
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| Q14. | Which of the following is not a property of activated carbon? |
| Option A: | It is impermeable |
| Option B: | It has many carbon atoms with free valencies |
| Option C: | It is available in granular as well as powder form |
| Option D: | It has a prolonged suspension |
| | |
| Q15. | . For removal of manganese from water _____ mg of oxygen is required |
| Option A: | 0.14 |
| Option B: | 0.50 |
| Option C: | 0.29 |
| Option D: | 0.90 |
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| Q16. | Loss of head in rapid sand filter is limited to |
| Option A: | 1.5- 2.5 m |
| Option B: | 2.5- 3.5m |
| Option C: | 1-3m |
| Option D: | 3.5 - 5m |
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| Q17. | Slow sand filter can remove turbidity up to |
| Option A: | 10mg/l |
| Option B: | 30mg/l |
| Option C: | 50mg/l |
| Option D: | 75mg/l |
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| Q18. | The length of pressure filter varies from-----to-----M |

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| Option A: | 2.5 – 8.0 |
| Option B: | 3.5 – 8.0 |
| Option C: | 4.5- 10 |
| Option D: | 5.5-10 |
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| Q19. | Bleaching powder contains the percentage of chlorine |
| Option A: | 80 |
| Option B: | 60 |
| Option C: | 40 |
| Option D: | 30 |
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| Q20. | This is not the disinfectant |
| Option A: | Iodine |
| Option B: | Fluorine |
| Option C: | Chlorine |
| Option D: | Bromine |
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| Q21. | Which of the following is not a classification of traps based on their shape |
| Option A: | P - trap |
| Option B: | S – trap |
| Option C: | Q – trap |
| Option D: | W – trap |
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| Q22. | The design period of storage reservoir can be given as _____ |
| Option A: | 50yr |
| Option B: | 20yr |
| Option C: | 30yr |
| Option D: | 10 yr |
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| Q23. | Most important source of water for public water supply, is from |
| Option A: | Lakes |
| Option B: | Ponds |
| Option C: | Streams |
| Option D: | Rivers |
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| Q24. | The maximum permissible limit for suspended solids is _____ |
| Option A: | 10 mg/l |
| Option B: | 20 mg/l |
| Option C: | 30 mg/l |
| Option D: | 40 mg/l |
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| Q25. | Which of the following statement is wrong regarding permanent hardness |
| Option A: | It is also called carbonate hardness |
| Option B: | It is due to the presence of sulfates, chlorides and nitrates of calcium and |

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| | magnesium |
| Option C: | It cannot be removed by boiling |
| Option D: | It requires special methods of water softening to get removed |