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Roll No. 030742

**4th Sem / CIVIL ENGINEERING/BRICK TECH/
Constr. Mgnt, Highway Engg.**

**Subject:- Water supply & Waste Water Engineering/
Public Health Engg.**

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Under normal conditions, the average domestic consumption in India per person per day in litres is
a) 150 b) 135 (CO2)
c) 180 d) 215
- Q.2 Chlorination of water is done for (CO4)
a) removal of sediments
b) removal of suspended solid
c) removal of hardness
d) removal of bacteria
- Q.3 Asbestos pipes are joined by means of (CO5)
a) flanged joint
b) flexible joint
c) simplex joint
d) dresser coupling joint
- Q.4 The process of supporting the sides of trenches by wooden members is termed as.....of trenches
a) excavation b) timbering (CO6)
c) setting out d) bedding

- Q.5 The waste which include grass, furniture, wastepaper, waste fruits is called..... (CO8)
a) dry waste b) rubbish
c) both a & b d) none of these
- Q.6 Which one does not affect the sanitary sewage (CO9)
a) population of area b) rain water
c) plan of area d) none of these
- Q.7 Timbering of trenches is necessary for (CO10)
a) supporting the sides of trenches
b) when water table rises
c) proper joints of sewer
d) both a & b
- Q.8 The degree of turbidity can be measured by (CO11)
a) Turbidity rod b) turbidimeter
c) both a & b d) none of these
- Q.9 At about Moisture, the sludge become dry.
a) 10% b) 15% (CO13)
c) 20% d) 5%
- Q.10 The ratio of amount of diluting water to sewage is called (CO12)
a) dilution factor b) sewage factor
c) disposal factor d) none of these

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 What is design period ? (CO2)
Q.12 Explain screening ? (CO4)

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- Q.13 Sluice valve is also known as gate valve(True/False)
(CO5)
- Q.14 The process of placing the excavated soil back into the trench all round the pipes is called..... (CO6)
- Q.15 Human excreta is a waste (CO8)
- Q.16 Masonary sewer are used when the size..... (CO9)
- Q.17 Water test is conducted for..... (CO10)
- Q.18 Aerobic bacteria takes free oxygen in a (CO11)
- Q.19 In primary clarifiers water is detained for.....hours
(CO12)
- Q.20 Raw sludge contains..... of moisture content (CO13)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What is population forecasting? Explain any two methods of population forecasting (CO2)
- Q.22 Explain variation in rate of demand (CO2)
- Q.23 What is hydrological cycle? explain diagrammatically (CO1)
- Q.24 Explain different types of impurities present in water (CO3)
- Q.25 Write a short note on sedimentation with coagulation (CO4)
- Q.26 What is water meter ? Give its advantage and disadvantages. (CO5)
- Q.27 Explain excavation of trench and what are precaution taken during excavation (CO6)

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- Q.28 Explain any five water supply fixture and their installations. (CO7)
- Q.29 Explain conservancy system give its advantages (CO8)
- Q.30 Explain construction of drop manhole and give its function (CO9)
- Q.31 Explain air test (CO10)
- Q.32 Write a short note explaining C.O.D. (CO11)
- Q.33 Write a short note on nuisance due to sewage disposal (CO12)
- Q.34 Explain the working of sludge digestion tank (CO13)
- Q.35 Draw and explain different types of cristerns. (CO14)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 What is filtration ? give its significance. Also explain type of filters. (CO4)
- Q.37 What is water distribution system ? Give its requirement and explain methods used for distributing water. Also explain different types of distribution layout (CO5)
- Q.38 a) Explain trickling filters with the help of diagram.
b) Explain skimming tanks give its objectives. Also explain its construction & disposal (CO13)

Note: Course Outcome (CO) mentioned in the question paper is for official purpose only.

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