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180746/170746

4th Sem / Civil Engineering

Subject : Water Supply & Waste water engg. and irrigation engg. drawing / public health irrigation engg.Drawing

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x2=20)

Q.1 Define Sewer

Q.2 Define Combined sewer

Q.3 Draw the symbol of Towel Rail

Q.4 Draw the symbol of double sink unit

Q.5 Define Traps

Q.6 Define sullage

Q.7 Define Free Board

Q.8 Define spoil Bank

Q.9 Define fish Ladder

Q.10 Define wier

SECTION-B

Note: Short answer type questions. Attempt any five questions out of eight questions. (5x10=50)

Q.11 Draw the cross-section of a v-shaped drain

Q.12 Draw circular brick masonry sewer having 800 meter diameter

Q.13 Draw the plan, section of silt chamber

Q.14 Draw the section plan, x-section for a septic tank for 10 users by assuming suitable data

Q.15 Draw the section plan & sectional elevation of empty soak pits, diameter=900 mm, effective depth=1000m

Q.16 Draw the cross-section of a zoned type earthen dam

Q.17 Draw the cross-section of a strainer well (natural Gravel Pack)

Q.18 Draw the details of a recharge shaft of house drainage for rain water harvesting system.

SECTION-C

Note: Long answer type questions. Attempt any two questions out of three questions. (2x15=30)

Q.19 Draw the detailed elevation of one pipe system for drainage service of a building

Q.20 Draw the cross section of a channel, Partly in cutting and partly in filling from the following data.

R.L of Bed = 100m

R.L of Berm = 100.80 m

R.L of F.S.L = 101.00 M

R.L of Top of bank = 101.50 m

Slope of cutting = 1:1

Slope in filling = 1:5:1

provide side service Road, surface dram etc.

Bed width of channel = 3.50m

Top width of side bank = 1.80m

Q.21 Draw the sectional plan, cross-section & sectional side elevation of an Inspection chamber 900mm´ 900mm inside depth is 1000 mm. A branch sewer pipe of 100 m diameter is at right angle to them in sewer pipe. The diameter is at right angle to them in sewer pipe. The data not given may be assumed