## SECTION-C

**Note:** Long answer type questions. Attempt any three questions. 3x10=30

Q.3 What is the purpose of sedimentation? Describe various types of sedimentation tanks.

Q.4 What are the different types of pipes? Give their uses.

Q.5 Explain sludge treatment and its disposal.

Q.6 Explain self purification of streams as a method of sewage disposal Compare it with disposal by dilution.

Q.7 Describe the method of conveyance of sewage. Give their advantages and disadvantages.



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**4th Sem. / Civil/ Brick Tech/ Const Mgmt/ Highway Engg.**

**Subject : Water Supply & Waste Water Engg.**

Time : 3 Hrs. M.M. : 100

## SECTION-A

**Note:** Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Public demand of water

b) Ph of water

c) Residual chlorine

d) Detention period

e) Settleable solid

f) Relief valve

g) Collar joint

h) Ferrule

i) Sewerage system

j) Garbage

k) Storm water

l) B.O.D.

m) Grease and oil traps

n) Screening

o) Turbidity

p) Anti siphonage pipe

q) Soil pipe

r) Gully trap

## SECTION-B

**Note:** Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Name different sanitary fittings.

ii) What is seal? Why it is provided?

iii) What is an oxidation pond?



iv) Give composition of sewage.

v) What are the physical characteristics of sewage?

vi) How will you check the gradient of sewers with boning rods?

vii) Sketch various surface drains.

viii) Explain briefly constructional features of drop manhole.

ix) What are the water supply fixtures used for domestic connection?

x) What precautions should be taken in laying pipes?

xi) How leakage of water is detected?

xii) Describe briefly water supply system.

xiii) What is rate of demand of water? How it varies?

xiv) What are bacteriological tests of water?

xv) Name various coagulants. How these are feeded?