R20

Reg. No: ☐☐☐☐☐☐☐☐☐☐

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year I Semester Regular Examinations March-2023
FOUNDATION ENGINEERING
(Civil Engineering)

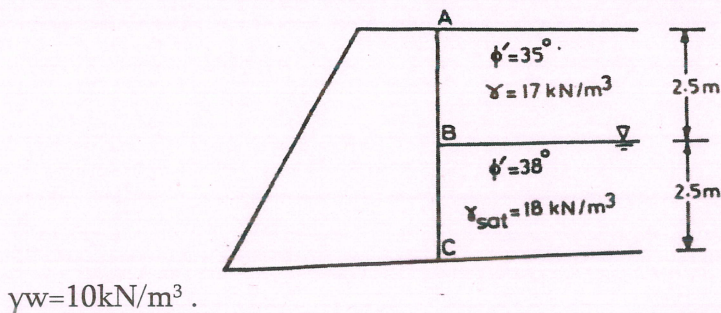Time: 3 hours   Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1   Determine the active pressure on the retaining wall as shown in fig. Take   CO1   L3   12M

$\phi'=35°$
$\gamma = 17 \, kN/m^3$
2.5 m

$\phi'=38°$
$\gamma_{sat} = 18 \, kN/m^3$
2.5 m

$\gamma_w = 10 \, kN/m^3$.

OR

2   With the help of neat sketch explain design of gravity retaining walls.   CO1   L2   12M

UNIT-II

3   Discuss effect of water table on the bearing capacity of the soil with neat sketch.   CO2   L2   12M

OR

4   Discuss the various methods of determination of allowable soil pressure in   CO2   L2   12M
cohesion less soils

UNIT-III

5   How would you estimate the load carrying capacity of a pile in   CO3   L2   12M
(i) cohesion less soils (ii) Cohesive soils by using static methods.

OR

6   How would you estimate the group action of piles in   (i) sand   (ii) clay   CO4   L2   12M

UNIT-IV

7   Explain different shapes of wells with neat sketch.   CO5   L1   12M

OR

8   What are the advantages and disadvantages of Floating caisson and discuss   CO5   L1   12M
stability of floating caisson during flotation?

UNIT-V

9   Explain the pressure distribution and stability of free cantilever sheet pile with CO6   L1   12M
neat sketch.

OR

10 What are different anchors used in sheet pile walls? Explain the design of   CO6   L2   12M
anchor pates and beams with neat sketch.

*** END ***

Reg. No:

ADITYA INSTITUTE OF ENGINEERING & TECHNOLOGY, PUTTUR
(AUTONOMOUS)
B.Tech III Year I Semester Regular Examinations March-2023
FOUNDATION ENGINEERING
(Civil Engineering)

Time: 3 hours   Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1.	Determine the active pressure on the retaining wall as shown in fig. Table	CO1	L3	12M

www.aditya.ac

OR

2.	With the help of neat sketch explain design of gravity retaining walls.	CO1	L2	12M

UNIT-II

3.	Discuss various methods of determination of bearing capacity of clay and strata near about it.	CO2	L2	12M

OR

4.	Discuss the various methods of determination of allowable soil pressure in cohesion less soils.	CO2	L2	12M

UNIT-III

5.	How would you estimate the load carrying capacity of a pile in (i) cohesion less soils (ii) Cohesive soils by using static methods.	CO3	L2	12M

OR

6.	How would you estimate the group action of piles in (i) sand (ii) clay	CO4	L2	12M

UNIT-IV

7.	Explain different shapes of wells with neat sketch.	CO5	L1	12M

OR

8.	What are the advantages and disadvantages of floating caisson and discuss stability of floating caisson during flotation?	CO5	L3	12M

UNIT-V

9.	Explain the pressure distribution and stability of free cantilever sheet pile with neat sketch.	CO6	L2	12M

OR

10.	What are different anchors used in sheet pile walls. Explain the design of anchor piles and beams with neat sketch.	CO6	L2	12M

END