Question 1
Design a tail escape for a canal to escape the last reach of length
1.0km with slope 10 cm/km through 24hrs according to the following
data:-
Canal data:-
Bed width =1.25m , bed level =(6.10),
water level =(7.00), berm level =(7.60),
bank level=(8.25) bank width =6.0m
S.S from bed to berm are 1:1, and from berm to bank 3:2
Drain data:-
H.W.L = (5.50), bed level=(4.50),
Berm level=(7.60), bank level=(8.25)
S.S from bed to berm are 1:1and from berm to bank 3:2
It is required to:
- Give all necessary hydraulic calculations.
- Structural design of the drainage pipe.
- Draw to scale 1:100
a- Plan (H.E.R)
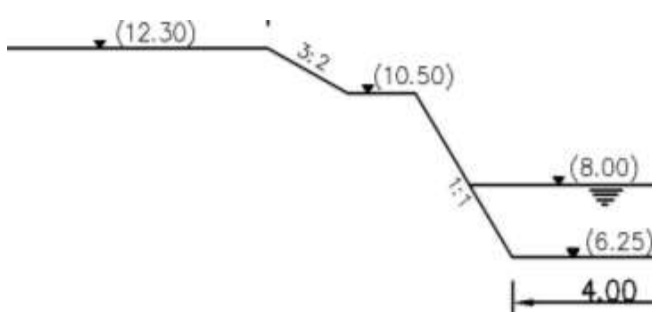b- SEC. ELEV.
c- Side view.

Question 2
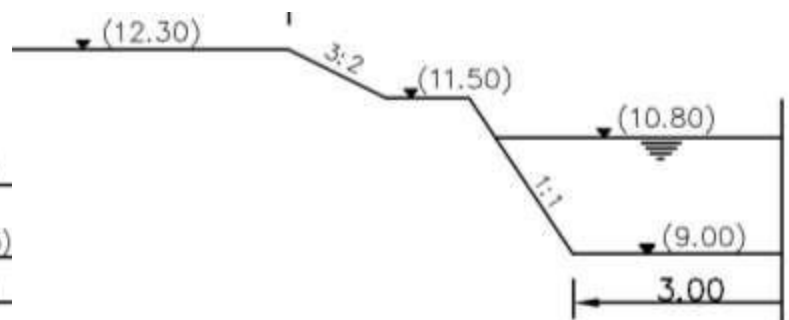Design a tail escape for the channel to escape the last reach of length 6.0 km witch velocity
0.45 m/sec through 24 hours according to the following Data:

Required
1- Dimension of weir
2- Dimension of orifice
3- Dimension of drainage pipe

Drain cross section

Canal cross section