

Any missing data could be reasonably assumed.
All dimensions are in meter.

Question (1)

(85 degrees)

For the two reinforced concrete pipe culvert shown in Fig. 1 with pipe diameter of 2 m and thickness of 0.25 m. **it is required to** draw with suitable scale:-

- 1- Complet Plan half earth removed. (25 degrees)
- 2- Sec. Elevation A-A. (30 degrees)
- 3- Sec. Side View B-B. (30 degrees)

Draw the required pitching.

Question (2)

(15 degrees)

For the plan illustrated in Fig. 2, **it is required to** draw with suitable scale:-

- 1- Complete reinforcement of the slab if the reinforcement is $8\phi 10/m$ in main direction and $6\phi 10/m$ in the other direction. (7 degrees)
- 2- Complete reinforcement of beams B1, B2, B3 and C1 if the reinforcement is as illustrated in the following table. (8 degrees)

جدول التسليح

الكمرات	القطاع	تسليح			كانات
		سفلى		علوى	
		عدل	مكسح		
B1	25 x 70	4 ϕ 16	3 ϕ 16	2 ϕ 16	6 ϕ 8/m
B2	25 x 70	3 ϕ 16	3 ϕ 16	2 ϕ 16	6 ϕ 8/m
B3	25 x 70	3 ϕ 16	2 ϕ 16	2 ϕ 16	6 ϕ 8/m
C1	25 x 70	2 ϕ 16	-----	5 ϕ 16	6 ϕ 8/m

Fig.1

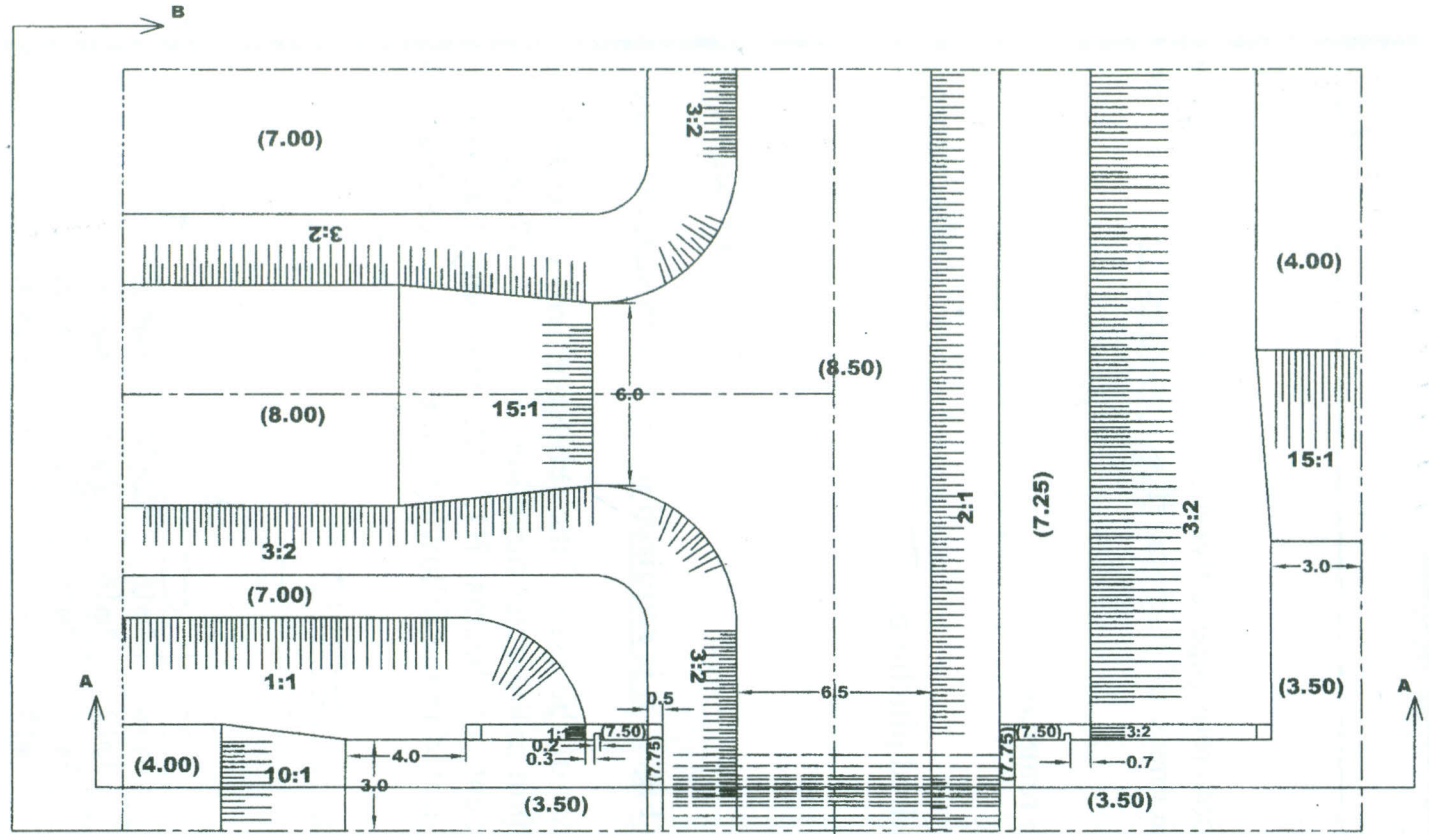


Fig.2

