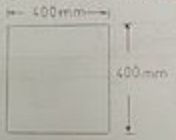
68/ The tied reinforced concrete column is subjected to a service live load = 460 KN and dead load = 250 KN. If f'_c = 27.6 N\mm^2 , fy = 414 N\mm^2 , eccentricity e = 250 mm , the dimensions of the cross – section are b = 400 mm , h = 400 mm and d´ = 60 mm . Design the longitudinal reinforcement for the column. For this column (Use 28 mm ϕ , Ab = 616 mm^2)

69/ The tied reinforced concrete column is subjected to service live load = 450 KN and dead load = 250 KN. If fc = 27.6 N \mm^2 , fy = 414 N\mm^2 , eccentricity e = 250 mm , the dimensions of the cross – section are b = 400 mm , h = 400 mm and d´= 60 mm . Design the longitudinal reinforcement for the column. (Use 28 mm ϕ , Ab = 616 mm^2)

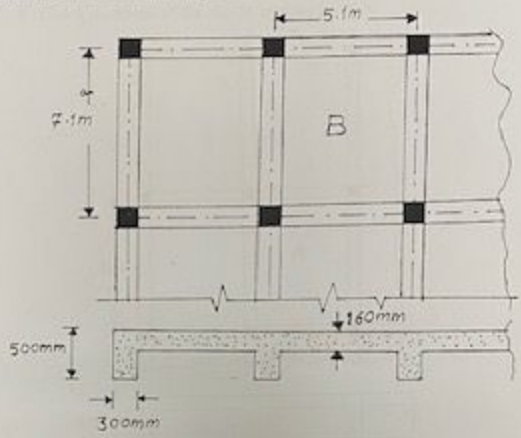


70/ The tied reinforced column is subjected to a service live load = 420 KN and dead load = 240 KN , If fc = 27.6 N \mm^2 , fy = 414 N \mm^2 , eccentric city e = 250 mm , the dimensions of cross – section are b = 400 mm , h = 400 mm d = 60 mm
Design the longitudinal reinforcement for the column . For this column (Use 28 mm ϕ)

71/ The tied reinforced concrete column is subjected to a service **live load = 450 KN** and **dead load = 250 KN**. If **f'_c = 27.6 N\mm^2** , **fy = 414 N\mm^2** , eccentricity ; **e = 250 mm** , the dimensions of the cross-section are **b = 400 mm** , **h = 400 mm** and **d´ = 60 mm** .
Design the longitudinal reinforcement for the column. For this column
(Use 28 mm ϕ).

72/ \ The tied reinforced concrete column is subjected to aservice axial force due to live load = 560 KN and service axial force due to dead load = 290 KN . if fc = 26.7 N\mm^2, fy = 414 N \mm^2, eccentricity e = 410 mm . The dimensions of cross-section are b = 500mm , h = 500 mm and d = 70 mm . Design the longitudinal reinforcement for this column (use 28 mm ϕ) Then sketch your design.

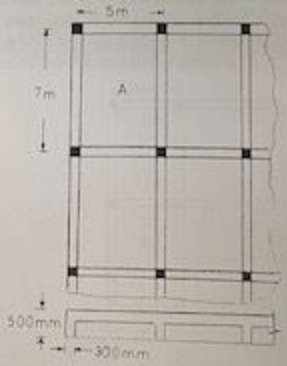
73/ The two way floor which shown in fig is stiffened by beams along all column lines. dimensions of beam 300 * 500 mm , slab thickness = 160 mm , Dead load (including slab weight = 5 KN\m2) , Live load = 3.5KN\m^2 .
Determine the magnitude of the Positive and Negative design moment at all critical sections at all in the external panal B



74/ The two way floor which shown in fig is stiffened by beam along all column lines , dimensions of beam = 300*500 mm , dead load (including slab weigh) = 4.5 KN\m^2 live load = 4 KN\m^2 . fc$'$ = 27.6 N\mm^2 , fy = 414 N\mm^2 .

a) Determine the magnitude of the positive and negative design moment at all critical section in the exterior panal A.

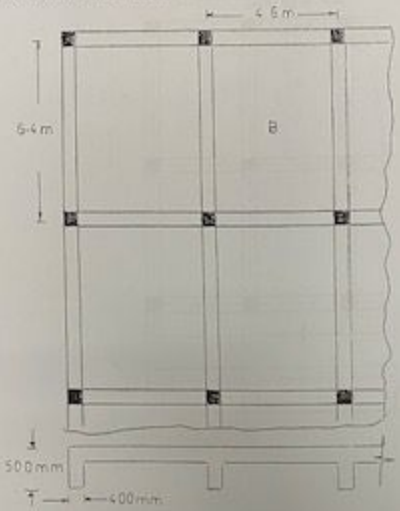
b) Check thickness of the slab in exterior panal A.



79/ The two way floor which shown in fig is stiffened by beams a long all column lines, dimensions of beams (400*500 mm) dead load (including slab weight) = 6 KN\m^2 , live load = 5.5 KN\m^2

a) Determine the magnitude of the positive and negative design moment at all critical section in exterior panal B .

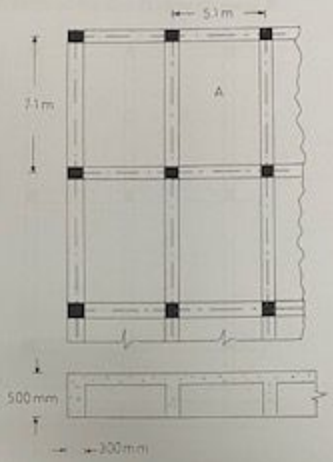
b) Check thickness of the slab in exterior panal B. If f'_c = 27.6 N\mm^2 , fy = 414 N\mm^2



89/ The tow way floor which shown in fig is stiffened by beam a long all column lines. **dimensions of beam 300 * 500 mm ,dead load (including slab weight)=5.5 KN \ m^2, live load = 4 KN\ m^2, fc$'$ = 27.6 KN \mm 2 , fy = 414 N \ mm 2 .**

a : Determine the magnitude of the positive and negative design moment at all critical section in the exterior panal A .

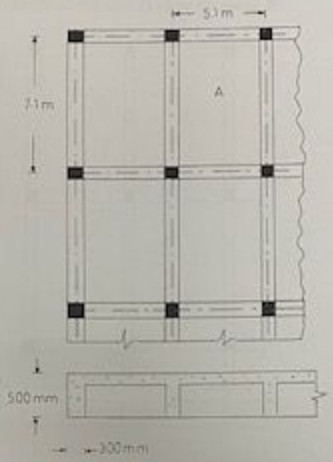
b : Check thickness of the slab in exterior panal A .



89/ The tow way floor which shown in fig is stiffened by beam a long all column lines. **dimensions of beam 300 * 500 mm ,dead load (including slab weight)=5.5 KN \ m^2, live load = 4 KN\ m^2, fc$'$ = 27.6 KN \mm 2 , fy = 414 N \ mm 2 .**

a : Determine the magnitude of the positive and negative design moment at all critical section in the exterior panal A .

b : Check thickness of the slab in exterior panal A .



8/ The tow way floor shown in fig is stiffened by beam a long all column lines. **dimensions of beam 400 * 500 mm ,dead load (including slab weight)=5 KN \ m^2, and live load = 4 KN\ m^2**, If **fc$'$ = 27.6 N \mm^2, fy = 414 N \ mm^2**.

a : Determine the magnitude of the positive and negative design moment at all critical section in the exterior panal **B** .

b : Check thickness of the slab in exterior panal **B** .