EXPERIMENT NO: 12

Exercise: 12.1

Drawing different types of staircases – Dog legged, Open well – plan and section

Draw plan and sectional elevation of RCC dog legged staircase for an office building which measures $3m \times 5.5m$. The vertical distance between the floor is 3.3m (including landing).

Thickness of the floor slab is 150mm. Provide steps with tread of 300mm and rise of 150mm. Thickness of waist slab and landing slab is 150mm. Width of stair is 1.5m. Reinforcement details: main steel: 10φ @125 c/c spacing and distribution: 8φ @ 250 c/c spacing.

DOGLEGGED STAIR CASE (Fig:2.10) 5500mm 13 14 15 16 17 18 19 20 21 3000mm UP 10 9 1500mm -3000mm-<u></u> 1000mm^J PLAN OF DOGLEGGED STAIRCASE 1650mm RISER-150mm TREAD-300mm 3300mm Floor height HAND RAILS 1650mm

SECTION A-A SECTIONAL ELEVATION OF DOGLEGGED STAIRCASE

Civil Engineering Department

Exercise: 12.2

Draw plan and sectional elevation of an **open newel staircase** with a rectangular well for an office building with the following data:

Inside dimensions of staircase = 4.5 m x 5.4 m.

Height between the floors is 3.6m.

Thickness of the floor slab and landing slab is

150mm. Width of landing=1.5m.

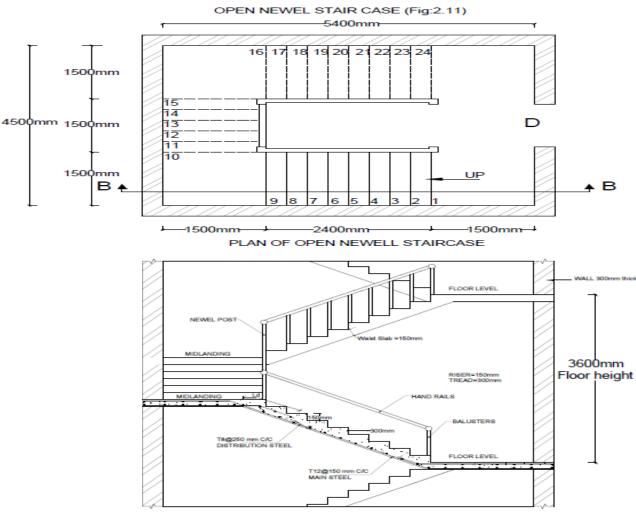
Width of stair = 1.5m.

Tread=300mm, riser=150mm.

Waist slab thickness =

150mm.

Reinforcement details: Main steel:12φ @150 c/c spacing and Distribution: 8φ @ 250 c/c spacing.



SECTION B-B SECTIONAL ELEVATION OF OPEN NEWELL STAIRCASE