

REPUBLIC OF CAMEROON
Peace – Work – Fatherland

MINESEC / DECC

CAP INDUSTRIAL

Session : 20 15

Specialty : Building construction

Duration : 4 Hours

Coefficient. :4

Written paper

DRAWING

INSTRUCTIONS TO THE CANDIDATES

- NO DOCUMENTS ARE ALLOWED EXCEPT THOSE GIVEN TO THE CANDIDATE BY THE EXAMINERS
- BEFORE YOU START WORK, MAKE SURE THAT YOU HAVE FROM SHEET 1/2 TO SHEET 2/2
 - NON PROGRAMMABLE SCIENTIFIC CALCULATORS ARE AUTHORISED
 - THIS PAPER IS EVALUATED ON 20 MARKS

SUMMARY DESCRIPTION OF THE PROJECT.

The drawing on page 2 / 2 is that of formwork plan of the first floor of a residential building. It has a half turn stairway.

RELATED TECHNICAL INFORMATION

STAIRWAY:

Storey height 306 cm

Tread length 100 cm

Length of intermediate landing is 120 cm

Number of steps: 17 (take $2 h+g = 64$)

I- FLOOR:

PILLAR:

Pillar : P₁, P₂, P₃, P₄, P₅, P₆, P₇, P₁₂, P₁₆, P₁₇ have a common section of 15 X 30 cm

Pillar: P₉ has a section of 15 x 20 cm

Pillar: P₁₃, P₁₄, P₁₅ have a diameter of 30 cm

Pillar: P₈, P₁₀, P₁₁ have a variable section (see details)

BEAMS:

The beams and their sections are: 7 (15 x 50) cm, 4 (15 x 30) cm, 9_3 (15 x 20) cm

The others have a section of 15 x 40 cm

SOLID FLOOR:

The slab e is a solid slab with a thickness 15 cm and its finish level is at +306 cm;

The other floors are hollow with a thickness of 16+4 cm and prefabricated rib beams with finish level at +306 cm.

II- WORK REQUIRED

1. Define: Formwork plan 2 marks
2. Determine the height at the second going 2 marks
3. On An A3 paper and to a scale 1 /50 (0,02), draw
 - The Formwork plan 8 marks
 - Dimensioning 6 marks
 - Presentation 2 marks

