



- Answer all the following questions
- The exam. consists of one page

- No. of questions:2
- Total Mark: 40 Marks

*Any data not given is to be reasonably assumed according to Egyptian Code of Practice

الرسم باستخدام الادوات الهندسية فقط

Question: 1 (Maximum (60 point))

For the elevated tank covered with dome shown in Figure, knowing that: $f_{cu}=30$ MPa, $f_y=360$ MPa, It is required to:

- 1- Calculate the internal forces at the critical sections of dome and ring beam B1 rested on four posts assuming L.L= 0.5 kN/m² (H.P) and F.C= 0.5 kN/m² (7)
- 2- Draw details of reinforcement in plan and cross sections (8)
- 3- Draw (B.M & N.F) diagrams for the walls, slabs and beam of tank (15)
- 4- Design the critical sections for the walls, slabs and beams of tank (20)
- 5- Draw vertical and horizontal cross-sections showing reinforcement details of tank (15)

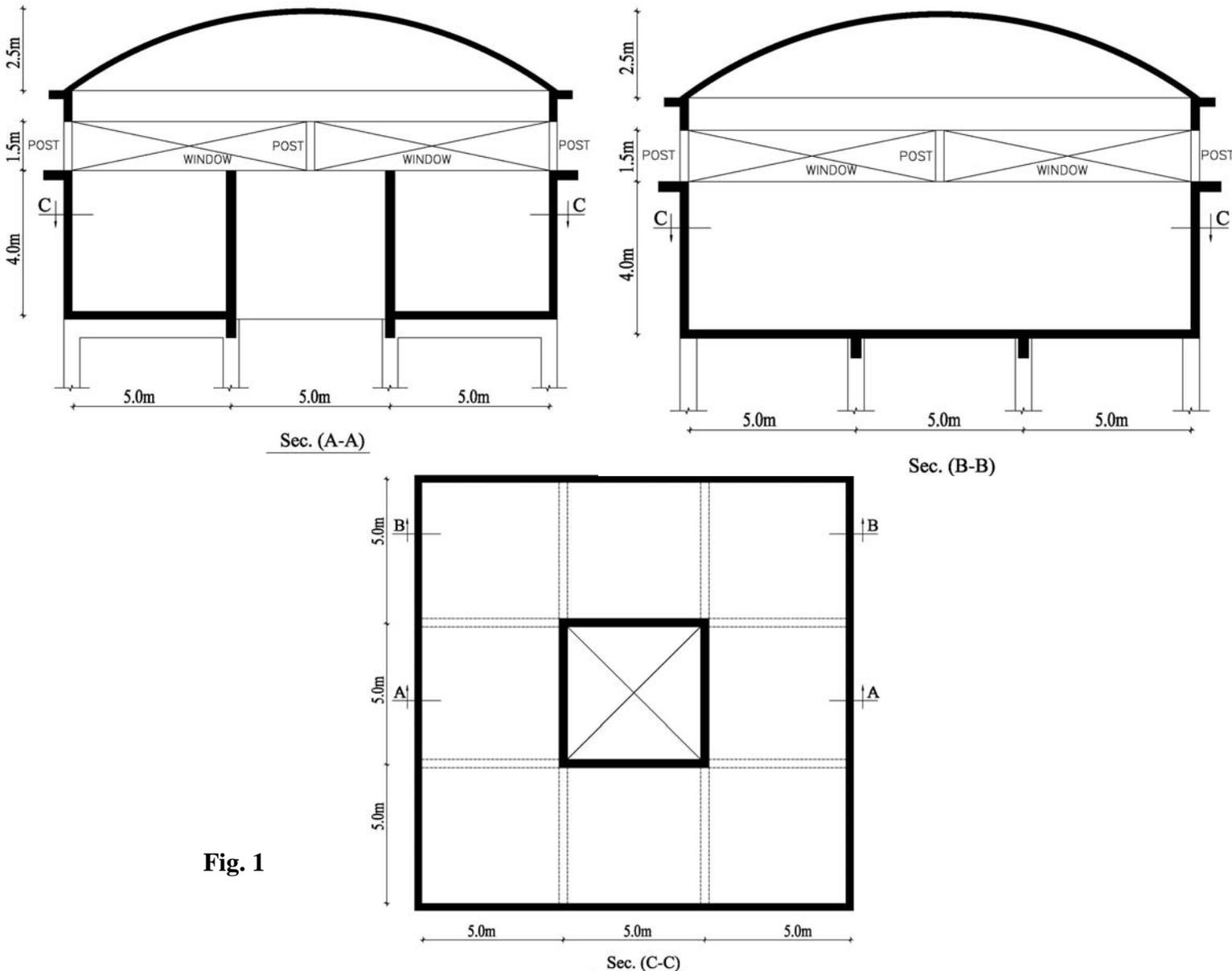


Fig. 1