



CAIRO UNIVERSITY
FACULTY OF ENGINEERING
Soil Mechanics and Foundation Engineering Division
FOUNDATIONS

4th Year Civil

EXERCISE (10)

2016-2017

CHOICE OF TYPE OF FOUNDATIONS

- 1) Choose the most appropriate type of foundation for a 20 m x 20 m 8-storey office building founded on clay formation of problem No.1 of Exercise (9) ($\gamma_{\text{sat}} = 1.8 \text{ gm/cm}^3$). Considering the maximum allowable settlement is 1.0, 5.0 cm or 10.0 cm.
- 2) Choose the most appropriate type of foundation for a 15 m x 20 m 22-storey office building on sand formation of problem No. 2 of Exercise (9) ($\gamma_{\text{sat}} = 1.85 \text{ gm/cm}^3$). Considering the maximum allowable settlement is 1.0, 5.0 cm and 10.0 cm.
- 3) Choose the most appropriate type of foundation for a 15 m x 15 m 15-storey office building on soil formation of problem No. 3 of Exercise (9) ($\gamma_{\text{sat}} = 1.85 \text{ gm/cm}^3$). Considering the maximum settlement is 1.0, 5.0 cm and 10.0 cm.