



كلية الهندسة - جامعة القاهرة  
شعبة هندسة الجيوماتكس  
أولى مدني



**Homework Assignment No. 1**  
**Map scale, Map elements**

**Part A- Mark the correct answer for the following:**

1. **A map with a large scale usually shows**
  - a. A large amount of land space.
  - b. A small amount of land space.
  - c. Physical features only of a land space.
  - d. Political boundaries between countries only.
2. **The map that shows the spatial patterns of a geographic theme, such as landuse, climate, ..etc is:**
  - a.  Planimetric map
  - b.  Topographic map
  - c.  Thematic map
  - d.  Land use map
  - e.  none of these
3. **The purpose of a topographic map is to show**
  - a.  2-dimensional objects
  - b.  elevation
  - c.  land uses
  - d.  none of these
4. **Declination is one of the map elements which represents:**
  - a.  Angle between perpendicular to geoid and perpendicular to ellipsoid
  - b.  Angle between true north and magnetic north
  - c.  Angle between longitude of two ends of a line
  - d.  None of these.
5. **Which of the following is the "largest" scale of a map?**
  - a.  1mm = 25cm
  - b.  1mm = 100cm
  - c.  1/500
  - d.  1/1000
6. **The accuracy of measurement from map with scale 1:1000 is 0.2 m. The accuracy of the same map if enlarged twice is:**
  - a.  0.1m
  - b.  0.2m
  - c.  0.4m
  - d.  0.05m
  - e.  none of these
7. **The accuracy of an area from map with scale 1:1000 is 0,01 m<sup>2</sup>. The accuracy of the same area and same map if reduced to half is:**
  - a.  0.04m<sup>2</sup>
  - b.  0.01m<sup>2</sup>
  - c.  0.08m<sup>2</sup>
  - d.  0.16m<sup>2</sup>
  - e.  none of these
8. **The accuracy of an area from map with scale 1:500 is 0,01 m<sup>2</sup>. The accuracy of the same area and same map if enlarged twice is:**
  - a.  0.01m<sup>2</sup>
  - b.  0.005m<sup>2</sup>
  - c.  0.02m<sup>2</sup>
  - d.  0.0025m<sup>2</sup>
  - e.  none of these

**Part B- Answer the followings:**

1. **Find the suitable surveying map scale to produce map using A0(120cm x 84cm) paper size for an area with dimension 1005m x725m if margin is 2.5cm from all sides. Using the same surveying map scale, what should be the minimum number of maps if paper size is A3 (42cm x 30 cm)?**

2. The next figure represents the coordinates of border of the House Home Project at New Cairo City, find suitable map scale to plot project on A0 paper size. Also, find minimum number of maps with scale 1:1000 and effective plot area 100 cm x 80 cm that cover the project area.

