**Benha University 4th Year (Sp. Geology) Students**

**Faculty of Science Mineral prospection and raw materials (435G)**

**Geology Department Date: 11 – 06 – 2017**

**Time Allowed: 2 hours**

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***Answer the following questions***

**1. Define only 6 items from the following: (12 marks)**

1. Minable Reserve
2. Pedogeochemical Survey
3. Mineral exploration
4. Geophysical exploration
5. Primary dispersion
6. Geochemical exploration
7. Average ore grade
8. Atmogeochemical Survey

**2. Answer only two questions from the following: (12 marks)**

1. The Cutoff is the most significant relative economic factor for computation of resource and reserve from exploration data. (Discuss)
2. Compare between Lithogeochemical Survey and Stream Sediments Survey as a geochemical Survey in mineral exploration.
3. Write on the different stages of mineral explorations starting from geoscience stage to mine closure stage.

**3. Answer only two questions from the following: (12 marks)**

1. Compare between the “Old Style” and “Polygonal” methods as conventional resource/reserve estimation methods.
2. The orientation survey is one of the key aspects of planning to evaluate which techniques are effective for the mineral exploration of a commodity sought. (Discuss)
3. In the mineral exploration, the area should have several characteristics while selection (Discuss).

**4.** Give brief on the conventional classification system of economic ore reserves and sub-economic resources. **(12 marks)**

***With my best wishes***

***Dr. Amr Abdelnasser***