



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA

FIRST SEMESTER EXAMINATIONS, NOV/DEC 2018

COURSE NO: GL/GM/MR/ES 261

COURSE NAME: INTRODUCTION TO MINING

CLASS: GL/GM/MR/ES II

TIME: 3 HOURS

Name: _____ Index Number: _____

Answer All Questions

1. Explain the difference between prospecting and exploration? **[5 marks]**
2. Using geological knowledge and confidence levels explain the fundamental differences between the following resources:
 - a. Inferred
 - b. Indicated
 - c. Measured**[9 marks]**
3. Explain the following terms as applied in open pit mining:
 - a. Switch Back Haul road system
 - b. Spiral haul road system**[8 marks]**
4. Define mine development and mention three main factors which influence decisions at this stage. **[10 marks]**
5. Explain the following terms as they apply in underground mining systems: adit, drawpoint, chute, crosscut, hanging wall, angle of dip, ramp, raise and crosscut. **[18 marks]**
6. Give five (4) economic considerations for the selection of a mining method. **[5 marks]**
7. State three (3) environmental problems caused by illegal mining in Ghana **[6 marks]**
8. Explain the following terms with the aid of an annotated diagram as they apply to an open pit mine:
 - a. Bench
 - b. Bench Height
 - c. Bank angle
 - d. Berm
 - e. Overall pit slope angle
 - f. Bench toe**[18 marks]**
9. Describe, using the suitable annotated sketches, the difference between a hanging wall and a footwall. **[6 marks]**

10. Briefly explain how ore extraction is done in any surface mine you know in Ghana. (Not more than 150 words) **[10 marks]**
11. List five industrial minerals **[5 marks]**

Examiner: G. Agyei