



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA

SECOND SEMESTER EXAMINATIONS, MAY 2018

COURSE NO: MN 172
COURSE NAME: ELEMENTS OF MINING
CLASS: MN I **TIME:** 3 HOURS

Name: _____ Index Number: _____

ANSWER ALL QUESTIONS

- Write a one (1) page summary of the production picture of one of the following minerals in Ghana:
Bauxite, Manganese, Salt, Kaoline
- State four (4) distinctive features of an explosion
- State two three disadvantages of surface mining
- State the fundamental difference between auxiliary and production operations.
- State the three (3) main categories of underground development openings and give two (2) examples of each category.
- Explain the following underground stoping directional terms:
 - Porest
 - Inby
 - Outby
 - Underhand
 - Overhand
- With the aid of an annotated diagram, define the following surface mining terms:
 - Bench
 - Berm
 - Toe
 - Crest
 - Overall Stope angle
 - Bank angle
- Explain a stripping ratio of 3:1.
- Using a well annotated diagram explain the following underground excavation concepts: Winze raise, adit, shaft, finger raise, haulage drift,
- What distinguishes detonation from deflagration of explosive substances?

Examiner: Dr. G. Agyei