



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA
FIRST SEMESTER EXAMINATIONS, NOV. – DEC. 2018

COURSE NO: MR 377

COURSE NAME: SMALL-SCALE MINING & PROCESSING

CLASS: MR III

TIME: 2HRS

Name: _____ Index Number: _____

ANSWER ALL QUESTIONS

Q1

Provide a concise and brief commentary on the following:

- (a) History and regularisation of the small-scale mining in Ghana (MMIP – MANUAL, JUNE 2017, pages 3 – 4). **[5 marks]**
- (b) “Liberalisation of laws on mining in 1989, which legalised artisanal and small-scale mining with the primary aim of providing employment for the people and increasing government revenue, has rather turned out to be a curse!” (MMIP – MANUAL, JUNE 2017, page 2). **[5 marks]**
- (c) The key challenges facing government of Ghana in managing the issues associated with artisanal and small-scale mining menace (MMIP – MANUAL, JUNE 2017, page 2). **[5 marks]**
- (d) Factors encouraging illegal small-scale mining (“galamsey”) in Ghana. **[5 marks]**
- (e) The role play by ASM in the mining sector from the labour perspective. **[5 marks]**

Q2

- (a) Describe alluvial small-scale mining in terms of **[20 marks]**
 - (i) The types of deposits
 - (ii) Mineralogy
 - (iii) Production capacity
 - (iv) Processing strategy
- (b) Diagrammatically compare the current flow sheet for placer and hardrock processing operations. **[10 marks]**

- (c) Describe use of the following equipment in small-scale mining and processing of gold ore:
- (i) Trammel [5 marks]
 - (ii) Hammer mill [5 marks]
- (d) Diagrammatically present the innovative flow sheet for gold recovery in ASM. [5 marks]
- (e) Explain the benefits of direct smelting in ASM. [5 marks]

Examiners: Dr E. A. Agorhom/Prof R. K. Amankwah