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#### MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

FACULTY OF ENGINEERING,APPLIED SCIENCES AND TECHNOLOGY

**DEPARTMENT: MINING AND MINERAL PROCESSING ENGINEERING**

**MODULE: MARKETING AND TRANSPORTATION OF MINERALS**

**CODE: HMIE 512**

### SESSIONAL EXAMINATIONS

**DECEMBER 2023**

**DURATION: 3 HOURS**

**EXAMINER: H. CHIBAYA**

## INSTRUCTIONS

1. *This paper contains five questions.*
2. *Answer any four questions.*
3. *Start a new question on a fresh page*
4. *Total marks 100*

**QUESTION 1**

1. Discuss the role that was played by ZISCO Steel in marketing and transportation of ore minerals in Zimbabwe and explain why the company was a significant stakeholder in the mining industry of the country. [**15]**
2. Describe the four main pillars 4Ps of mineral marketing [**8]**
3. Briefly explain the strategy used in Australia for marketing pink diamonds [**2]**

**TOTAL** [**25]**

**QUESTION 2**

1. Describe how lithium is currently being mined and transported from Zimbabwe to China, giving examples of the key companies involved, the changes in the form in which it is transported, and the modes of transport involved. [**13]**
2. How do factors such as supply and demand dynamics, production costs, and market competitiveness influence mineral pricing decisions? [**7]**
3. Explain why gold has been able to stand the test of time in the last century and the factors that affect the gold market price [**5]**

**TOTAL** [**25]**

**QUESTION 3**

1. Explain how technology has affected the pricing of the following minerals in the last decade;
2. Lithium [**3]**
3. coal [**4]**
4. platinum [**3]**
5. Discuss the importance of market research in the marketing of minerals. How can market research help mineral companies identify customer needs, preferences, and market trends? [**7]**
6. Compare and contrast the marketing strategies employed by different types of minerals (e.g., precious metals, industrial minerals, gemstones). Discuss the unique challenges faced by each type of mineral. [**8]**

**TOTAL** [**25]**

**QUESTION 4**

a) What are the potential risks that can arise from the transportation of minerals using trucks [**8]**

b) Compare and contrast the use of truck hauling and overland conveyor belts in the transportation of underground ores [**12]**

c) Discuss how mineral ores can be transported through pipelines. [**5]**

**TOTAL** [**25]**

**QUESTION 5**

a) What are mineral resource cartels [**5]**

b) Briefly describe tactics used by mineral resource cartels to control the market price of minerals [**12]**

c) Explain the advantages and disadvantages of mineral resource cartels [**8]**

**TOTAL** [**25]**

**END OF EXAMINATION**