



ZIMBABWE EZEKIEL GUTI UNIVERSITY

COLLEGE FOR LIFELONG LEARNING

FACULTY OF SCIENCE, TECHNOLOGY, AGRICULTURE AND FOOD SYSTEMS

EXAMINATION PAPER

MODULE CODE : DSMSH 114

MODULE TITLE : Ergonomics

DURATION : 3 Hours

LEVEL : 1:1

DATE : 30 JUL 2024

INSTRUCTIONS TO CANDIDATES:

1. Question **Number 1** in **Section A** is **compulsory**.
2. Answer any other **two (2)** questions from section B.
3. Each question carries twenty-five (25) marks
4. Number of marks for part questions are shown in brackets
5. Start each question on a new page

Section A: Compulsory

Question 1

- a. Describe ergonomics and the benefits of implementing ergonomics in the mining industry. (10 marks)
- b. What are the common ergonomic hazards in mining? (15 marks)

Section B: Answer any two (2) questions from this section

Question 2

- a. Discuss what musculoskeletal disorders (MSDs) are and how they are related to mining tasks (25 marks)
- b. What are the risk factors for developing MSDs and how can they be prevented or managed? (25 marks)

Question 3

- a. Discuss key ergonomic principles for designing mining tasks and workplaces (10 marks)
- b. Explain how ergonomic principles can be applied to reduce manual handling risks in mining (15 marks)

Question 4

- a. Discuss methods which are used to identify ergonomic hazards in an industry? (15 marks)
- b. Which steps are followed in conducting ergonomic risk assessment in an industry (10 marks)

Question 5

Discuss the types of ergonomic controls in a mining industry bringing out benefits and weaknesses of each control. (25 marks)

The End