

Minerals Council South Africa



EXAMINATION PAPER

SUBJECT: CHAMBER OF MINES OF SOUTH AFRICA - CERTIFICATE IN MINE ENVIRONMENTAL CONTROL	EXAMINER: S B Kesilwe
PAPER 6 – THE MINE HEALTH AND SAFETY ACT REGULATIONS	MODERATOR: B Letlape
SUBJECT CODE: COMMEC6	TOTAL MARKS: [100]
EXAMINATION DATE: 16 MAY 2023	PASS MARK: (60%)
TIME: 08:30 – 10:30 (2 HOURS)	

NUMBER OF PAGES: 3 including this cover page

SPECIAL REQUIREMENTS:

1. ANSWER ALL THE QUESTIONS

2. This is an **OPEN BOOK EXAM**. References, including guidance notes, guidelines for mandatory codes of practices, the Mine Health and Safety Act and Regulations and Regulations in force in terms of Schedule 4 of the Mine Health and Safety Act are permitted.

NO PREVIOUS EXAMINATION QUESTIONNAIRES WILL BE ALLOWED.

3. Put your ID number on the outside cover of each book used, and on any graph paper or other loose sheets handed in.

NB: YOUR NAME MUST NOT APPEAR ON ANY ANSWER BOOK OR LOOSE SHEETS.

4. Write in ink on the **right-hand page** only – the left-hand page **will not** be marked.

5. Illustrate your answers by means of sketches or diagrams wherever possible.

6. Please quote all the relevant regulation numbers.

7. Keep your answers short and to the point, it is not necessary to provide word-perfect reproductions of the regulations. In many cases a single word or phrase will suffice.

8. Please note that you are not allowed to contact your examiner or moderator regarding this examination.

9. Cell phones and other electronic devices are NOT allowed in the examination room.

QUESTION 1**1.1 Define the following terms:**

- Biological monitoring (2)
- Occupational Health (2)
- Occupational disease (2)
- Health hazard (2)
- Health threatening occurrence (2)

1.2 Describe the concept, reasonably practicable as applied in risk assessment. (4)**1.3 The employer must ensure that no person goes underground at a mine without a body worn self-contained self-rescuer (SCSR) which complies with SABS 17378. Describe the monitoring programme of SCSR, quote the relevant legislation. (11)****[25]****QUESTION 2****2.1 List 5 employee duties for health and safety. (5)****2.2 List 5 health and safety representatives rights and powers. (5)****2.3 As an aspiring MHSA 12(1) appointee, what is the prescribed duties of a MHSA12 (1) appointee? Tabulate 15 legal responsibilities stating Section and/or regulation for each responsibility and provide brief description of the responsibility. (15)****[25]****QUESTION 3****3.1 The Mine Health and Safety Act (MHSA) 29 of 1996, has prescribed exposure limits for occupational health stressors, that must not be exceeded. What are the limits of the following occupational health stressors? Cite the relevant section/regulation of the MHSA.**

- a) Wet bulb temperature.
- b) Nickel
- c) Sulphur dioxide
- d) Respirable crystalline silica.
- e) Benzene

(5)

2

- 3.2 List occupational hygiene requirements of a hearing conservation programme in Mandatory Code of Practice for occupational exposure to Noise as per Guideline for Mandatory Code of Practice on Occupational Health Programme for Noise – Ref DMRE 16/3/2/4-B7 dated 11 February 2022. (5)
- 3.3 List steps to follow when performing noise measurement on an identified piece of equipment. (5)
- 3.4 As a MHSA 12(1) appointee, you are required to perform statistical analysis at the end of a sampling cycle for airborne pollutants, to determine if HEGs are correctly defined. List steps and decision that you take to ensure HEGs are correctly defined. (10)

[25]**QUESTION 4**

- 4.1 The mandatory code of practice guideline for airborne pollutants has published minimum requirements for selecting gravimetric weighing facility, list fifteen (15) of those requirements (15).
- 4.2 List key aspects to be considered when conducting occupational health risk assessment. You may reference an Occupational Health Mandatory code of practice. (10)

[25]**Total Marks: 100**