

Minerals Council South Africa



EXAMINATION PAPER

SUBJECT: CHAMBER OF MINES OF SOUTH AFRICA - CERTIFICATE IN MINE ENVIRONMENTAL CONTROL PAPER 6 – THE MINE HEALTH AND SAFETY ACT REGULATIONS SUBJECT CODE: COMMEC6 EXAMINATION DATE: 14 MAY 2019 TIME: 08:30 – 10:30	EXAMINER: N B LETLAPE MODERATOR: R McIntyre TOTAL MARKS: [100] PASS MARK: (60%)
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NUMBER OF PAGES: 4
SPECIAL REQUIREMENTS: 1. ANSWER ALL THE QUESTIONS 2. This is an <u>OPEN BOOK EXAM</u> . 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 examination 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 <u>will not</u> 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 are NOT allowed in the examination room.

QUESTION 1

Define the following:

- 1.1 Labour relations Act. (2)
 - 1.2 Medical inspector (2)
 - 1.3 Fiery Mines (2)
 - 1.4 Flammable gas warning device (2)
 - 1.5 Ventilation district (2)
- [10]
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- 1.6 According to the Mine Health and Safety Act, the employer must conduct occupational hygiene measurements. Elaborate. (5)

[15]

QUESTION 2

- 2.1 An inspector from the Department of Mineral Resources is visiting your mine to monitor compliance with the Mine Health and Safety Act. What are his/her powers while at the mine busy with the inspection?

[15]
- 2.2 Every employer, after consultation with the health and safety committee at a mine, must determine effective procedures for the general exercise of the rights of an employee to leave a workplace should circumstances arise at his place of work which appear to the employee to be a danger to his safety or health. What must these procedures provide for?

[10]

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QUESTION 3

List the Mine Health and Safety Act regulation requirements regarding:

- 3.1 Use of compressed air. (2)
- 3.2 Early warning systems. (2)
- 3.3 Ventilation control devices (2)
- 3.4 Working places where work has ceased. (2)
- 3.5 Occupational exposure to health hazards (2)
- 3.6 System of occupational hygiene measurements. (5)

[15]

Employer to establish a system of medical surveillance:

- 3.7 State the circumstances under which this must happen. (3)
- 3.8 Give a brief description of the system. (5)
- 3.9 How will the employer establish and maintain the system? (4)
- 3.10 How and when must the employer inform the authorities about the
appointment of the Occupational Medical Practitioner? (4)
- 3.11 What information must be furnished to the authorities? (4)

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QUESTION 4

Answer the following questions based on the DMR Mine Health and Safety Inspectorate - Guideline for the compilation of a Mandatory Code of Practice for the prevention of flammable gas explosions in mines other than coal mines (Ref DME 16/3/2/1-A2, First issue date 1 February 2002):

4.1 State the objective of this guideline. (4)

4.2 Define:

4.2.1 Containment wall. (2)

4.2.2 Controlled recirculation. (2)

4.2.3 Hazardous location (2)

4.3 Discuss the following under aspects to be addressed in the COP:

4.3.1 Detection of flammable gas. (6)

4.3.2 Clearing accumulation of flammable gas. (2)

4.3.3 Frictional ignition. (2)

4.4 List points to be covered in the COP to ensure that the approaching or holing into abandoned ends is done safely. (5)

[25]

TOTAL MARKS 100