

EXAMINER'S REPORT

Mechanical engineer of coal mines other than underground certificate of competence

March – October 2019

Post oral examination

Examination date: 20 March 2019

Number of candidates: 2

Number deemed competent: 1

Examiner's comments:

The candidates experience and knowledge were tested with mechanical engineering scenario questions relating to the following topics:

- Fires on mobile plant
- Fuel tank repair involving hot work
- Incident emergency response
- Loading road trucks from a reject bin

The candidate that performed satisfactorily provided structured, logical answers with an emphasis on safely managing the situations.

Written examination

Summary of results and general comments

Examination date: 8 August 2019

Number of candidates: 3

Number who passed: 1

Highest overall mark: 65.67%

Average overall mark: 56%

Lowest overall mark: 48.33%

CME3 – Safety and mining legislation applicable to surface coal mines

Question 1 (total of 50 marks)

Highest mark: 29

Average mark: 22

Lowest mark: 12

Examiner's comments:

The briefing session for candidates advised that a sound working knowledge of legislation applicable to the mechanical engineering control plan (MECP) was required. It was disappointing that this question was generally handled poorly by the candidates.

Question 2 (total of 50 marks)

Highest mark: 29

Average mark: 25

Lowest mark: 22

Examiner's comments:

The question required the candidate to demonstrate detailed knowledge of the management of confined spaces. The candidates lacked depth of knowledge in both what constituted a confined space, and the specific controls required to manage them.

Question 3 (total of 50 marks)

Highest mark: 33

Average mark: 24.33

Lowest mark: 18

Examiner's comments:

The question covered management of risks to health and safety, review of control measures, and contents of a safety management system. Although candidates had a poor working knowledge of the PCBU requirement to manage risks to health and safety at the mine, there was a good knowledge of the requirements for reviewing control measures, and reasonable knowledge of the content of a safety management system.

Question 4 (total of 10 marks)

Highest mark: 42

Average mark: 33.33

Lowest mark: 28

Examiner's comments:

Candidates demonstrated a reasonable knowledge of *MDG28 Safety requirements for coal stockpiles and reclaim tunnels*. However, more experience is required on introducing equipment to site and managing the equipment maintenance through its life cycle

Question 5 (total of 10 marks)

Highest mark: 37.5

Average mark: 28.5

Lowest mark: 16

Examiner's comments:

Candidates failed to demonstrate a satisfactory knowledge of the key issues relating to pressurised fluids. However, they understood the general requirements for developing and implementing a standard of engineering practice (SEP) for fluid power management.

Question 6 (total of 10 marks)

Highest mark: 37

Average mark: 33.33

Lowest mark: 29

Examiner's comments:

Candidates demonstrated a reasonable knowledge of energy sources, identification of critical controls, and their verification.

Oral examination

Examination date: 31st October 2019

Number of candidates: 2

Number deemed competent: 0

Examiner's comments:

The candidates experience and knowledge were tested with mechanical engineering scenario questions relating to the following topics:

- Mobile plant safety critical function management
- Incident investigation
- Mobile plant equipment introduction to site
- Loading road trucks from a reject bin

Although both candidates performed okay, and generally had good depths of mechanical engineering knowledge, they could not adequately demonstrate an ability to apply the knowledge to satisfactorily manage the situations.

General comments

Candidates need to consider the depth of their mining and engineering knowledge, and their ability to practically apply that to the safety focussed management of real-world situations, when planning to sit for statutory qualifications. In short, their relevant experience in mechanical engineering roles, especially in the day to day operation of the mine.

More information

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Acknowledgments

Mechanical engineer of coal mines other than underground examination panel

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