

EXAMINER'S REPORT

Undermanager of underground coal mines certificate of competence

Oct 2019 – Jan 2020

Written examination

Summary of whole exam results and general comments

Examination date:	15+16 October 2019
Number candidates:	38
Number who passed:	20
Highest overall mark:	83%
Average overall mark:	65%
Lowest overall mark:	48%

UB1 – Mining Legislation

Summary of paper results and general comments

Exam Date:	15 October 2019
Number of Candidates:	34
Number who passed:	23
Highest mark:	89%
Average mark:	60.5%
Lowest mark:	34%

Examiner's comments

Nil comments provided

Question 1 (total of 20 marks)

Highest mark: 18

Average mark: 12.7

Lowest mark: 3

Examiner's comments

Most candidates correctly identified the requirement for a high risk activity notification prior to the widening of the off-centre roadway although some did not know the specified waiting period nor the legislative process available to shorten the time frame. There was variable knowledge of the information required to support/accompany the HRA notification.

Question 2 (total of 20 marks)

Highest mark: 18

Average mark: 13.1

Lowest mark: 6

Examiner's comments

There was a significant range of knowledge across the candidates in respect of their knowledge of the engineering controls required within the PHMP for mine shafts and winders.

Similarly, there was a significant range of knowledge on all the obligations of an undermanager in respect of reporting and communication as specified in Clause 27 of the WHS (M&P) Regulation 2014. In particular the obligations of the outgoing supervisor to acknowledge in writing the accuracy of reports and for the incoming supervisor, that the report content has been communicated to the incoming shift.

Question 3 (total of 20 marks)

Highest mark: 20

Average mark: 12.3

Lowest mark: 2

Examiner's comments

Nil comments provided

Question 4 (total of 20 marks)

Highest mark:	20
Average mark:	13.3
Lowest mark:	5

Examiner's comments

Nil comments provided

Question 5 (total of 20 marks)

Highest mark:	20
Average mark:	9.1
Lowest mark:	2

Examiner's comments

Nil comments provided

UB2 – Mining ventilation**Summary of paper results and general comments**

Exam Date:	15 October 2019
Number of Candidates:	30
Number who passed:	24
Highest mark:	80.5%
Average mark:	65.2%
Lowest mark:	34%

Examiner's comments

Nil comments provided

Question 1 (total of 100 marks)

Highest mark:	85
Average mark:	69.2
Lowest mark:	42

Examiner's comments

Nil comments provided

Question 2 (total of 100 marks)

Highest mark: 88

Average mark: 61.2

Lowest mark: 26

Examiner's comments

Nil comments provided

UB3 – Mining practices

Summary of paper results and general comments

Exam Date: 16 October 2019

Number of Candidates: 22

Number who passed: 20

Highest mark: 84%

Average mark: 68%

Lowest mark: 55.5%

Examiner's comments

Nil comments provided

Question 1 (total of 20 marks)

Highest mark: 13

Average mark: 11

Lowest mark: 9

Examiner's comments

Nil comments provided

Question 2 (total of 20 marks)

Highest mark:	17
Average mark:	15
Lowest mark:	12.5

Examiner's comments

This question required the candidate to demonstrate effective management of an uncontrolled emergency situation. It was generally answered well by the candidates, particularly when it was answered in a structured manner with consideration of controlling the situation, prioritising safety and welfare of workers and taking steps to collect relevant information (including via delegation as required). Candidates also generally demonstrated knowledge in post incident actions and systems review requirements.

Question 3 (total of 20 marks)

Highest mark:	14
Average mark:	12
Lowest mark:	8

Examiner's comments

Nil comments provided

Question 4 (total of 20 marks)

Highest mark:	18.5
Average mark:	16
Lowest mark:	12.5

Examiner's comments

This question was generally answered quite well. Candidates generally demonstrated a knowledge of range of potential hazards, the process to gather information and the development of a recovery plan.

Question 5 (total of 20 marks)

Highest mark:	18.5
Average mark:	15.5
Lowest mark:	13

Examiner's comments

Candidates generally exhibited a sound knowledge of the frictional ignition hazards and controls.

Question 6 (total of 20 marks)

Highest mark: 18.5

Average mark: 15.5

Lowest mark: 13

Examiner's comments

Not a lot of candidates chose to answer Question 6 although, those that did generally demonstrated a good knowledge of shotfiring patterns/designs, hazards/controls and the process for managing a misfire.

Question 7 (total of 20 marks)

Highest mark: 18

Average mark: 11

Lowest mark: 4

Examiner's comments

Nil comments provided

Question 8 (total of 20 marks)

Highest mark: 17

Average mark: 13

Lowest mark: 10

Examiner's comments

Nil comments provided

Post Oral examination

Date: 22-23 May 2019

Number of candidates: 8

Number deemed competent: 3

General comments

Nil comments provided

Oral examination

Date: 22-23 January 2020

Number of candidates: 25

Number deemed competent: 9

General comments

- Candidates need to understand that the Undermanager's role involves managing a team of mining supervisors. Candidates deemed competent addressed the non-compliances identified by their supervisory team, as well as addressing any unacceptable actions taken by one or more of their team. Candidates who generally did not understand the role of an Undermanager in typical scenario's such as shift debriefs, the start of shift addresses, on-shift management of resources were unsuccessful.
- Candidates who demonstrated working knowledge of the Undermanager's role could apply a structured approach to scenarios. Examiners have attributed the low success rate in oral exams to candidates not understanding basic management techniques required to competently perform the statutory function of an Undermanager. This includes:
 - Ensuring effective supervision is in place – The Undermanager determines what supervision is required for tasks to occur on his/her shift.
 - Workers readily understand systems of work – What does this look like in practice, how do you verify this is occurring? How do you respond if ineffective?
 - Knowing when to STOP – When managing recovery plans and providing instructions to workers, all plans need to include a review/revise process. Providing this level of detail was overlooked by multiple candidates. It is not acceptable to rely on experience alone as an effective risk control measure.
 - Working knowledge of resources on-site – Mines Rescue trained personnel, control room operators, outbye deputies etc. A competent Undermanager utilises his/her resources across the shift and responds accordingly. You cannot do everything on your own.
- Candidates who do not work in 'front-line' operational roles must spend time with a competent Undermanager to better understand the role.
- Candidates need to listen and understand the question being asked and not to anticipate where the question is leading. It is not a weakness to seek clarification if required.
- Candidates did not always demonstrate an ability to 'take control' (ANTS) of situations.

- Candidates need to answer questions as though they were the undermanager. Many still answer questions from the perspective of their current position (i.e. engineer or deputy).
- When answering a question, demonstrating non-technical skills is equally important when working towards the technical solution to the problem.
- Candidates should be able to demonstrate confidence in the process they apply to solve the issues being presented by the examiner. When appointed as an undermanager, they will regularly be confronted with new situations and the approach taken in breaking a problem down, applying a plan, assessing success and making amendments is what is being assessed.
- Those candidates who have primarily been involved in technical roles need to have a solid understanding of the practical aspects of the various systems of work. This is important for an undermanager both in terms of risk management but also in terms of resource utilisation.
- Candidates need to be able to demonstrate the ANTS – and how these affect the daily function of an undermanager as well as the involvement in emergency scenarios.
- Candidates need to understand the legislation as it applies to the role of an undermanager.

More information

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Acknowledgments

Undermanager of underground coal mines examination panel

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CM9 reference DOC20/80615