

EXAMINER'S REPORT

Deputy of underground coal mines

February - August 2019

Written examination

DEP1 coal mining practice and legislation

Summary of results and general comments

Exam date	19 June 2019
Number of candidates:	57
Number who passed:	49
Highest mark:	97%
Average mark:	68%
Lowest mark:	44%

Comments

Overall a better than average result in the written exam with 85% of candidates passing.

Question 1 (total 10 marks)

Highest mark:	10
Average mark:	7
Lowest mark:	4

Examiner's comments

Reasonably answered. Those performing well were able to identify a connection to a process that is risk assessed. Candidates addressing the controls that were related to frictional ignition risk control scored well.

Question 2 (total 10 marks)

Highest mark: 10

Average mark: 6

Lowest mark: 1

Examiner's comments

This question was targeting basic longwall systems knowledge. All actions for the Deputy would likely sit within a mines' current TARP systems, relating to checks around face horizon, face alignment, leg pressure integrity and/or change in face conditions. Candidates who consulted with crew members and Undermanager's performed better.

Question 3 (total 20 marks)

Highest mark: 20

Average mark: 14

Lowest mark: 3

Examiner's comments

Well answered by most. Higher scoring candidates were able to connect the requirement of re-sampling and recording the failures in the mines' Safety Management System event or incident form, to the review of risk control measures.

Question 4 (total 10 marks)

Highest mark: 10

Average mark: 6

Lowest mark: 0

Examiner's comments

Candidates who performed well were able to recognise the legislative requirements in the question. Those reviewing the real time or delayed gas monitoring tools, withdrawal condition levels, review of previous shift reports, current barometer status, need of a competent person, and type of gas hazards that may exist were marked favourably before even entering the mine.

Most candidates could identify the likely (practical) sources of the drop in pressure though only a few candidates enacted a site-based investigation post recovery.

Question 5 (total 10 marks)

Highest mark: 10

Average mark: 8

Lowest mark: 3

Examiner's comments

Good spread of answers across this question. Most performed well with the haste in applying first aid to the injured, application of the legislative required High-Pressure Fluid release protocols, subsequent scene preservation for investigation after making safe.

Question 6 (total 10 marks)

Highest mark: 10

Average mark: 7

Lowest mark: 4

Examiner's comments

Question targeted basic Deputy practices for auxiliary fans. This has not been well understood in both written and oral exams over recent years, however most candidates answered reasonably well.

This type of ventilation technique and problem-solving understanding must be known, and candidates must be well versed to be granted a Deputy's certificate.

Question 7 (total 5 marks)

Highest mark: 5

Average mark: 3

Lowest mark: 1

Examiner's comments

Knowledge and understanding of Reasonably Practicable is a must.

A "just enough" understanding of this clause is not sufficient. This question topic could be asked in any part of the competence exam process and must be understood.

Question 8 (total 5 marks)

Highest mark: 5

Average mark: 4

Lowest mark: 1

Examiner's comments

Knowledge and understanding of notifiable incidents is vital.

Per the previous question a "just enough" understanding of this is not sufficient. Most candidates could separate the Act from the Regulations in this instance, but most could not define the urgency of "immediately upon becoming aware of" (s15) vs. "when reasonably practicable" (c128(3))

Those performing poorly did not and/or struggled to separate or define either of the types of notifications required to the Resources Regulator or Industry Safety and Health Representative.

Question 9 (total 10 marks)

Highest mark: 10

Average mark: 6

Lowest mark: 2

Examiner's comments

Average marks achieved for average answers where candidates could describe the basic longwall functions. Granted one web back may not be as well-known, but question parts b, c, d, and e are standard well acknowledged requirements on a longwall face.

A common practical Deputy question.

Question 10 (total 10 marks)

Highest mark: 10

Average mark: 7

Lowest mark: 3

Examiner's comments

This question is part of a mine supervisors role: worker management. It is essential supervisors understand their responsibilities for the workers within their area and manage their health and safety. Fatigue is a major part of this management.

Candidates who answered this question well could connect sites SMS need for having fatigue hazards being addressed through the Health Control Plan. Those reflecting on their own site controls scored above average.

Post Oral examinations

Date: 6 February 2019

Number of candidates: 14

Number deemed competent: 8

General comments

It was very obvious to the examiners which candidates had put the work in to gain their certificate of competence. It was also very obvious those who decided to put the work in a month before the exam; they were not competent.

Talking to people at your mine is just not enough. You have to get out there and talk and visit other mines and understand what is required to be a deputy in NSW underground coal mines.

Oral examinations

Date: 27 & 28 August 2019

Number of candidates: 55

Number deemed competent: 28

General comments

Candidates must understand the role of a Deputy and what is required to do the role.

For example:

- Notifiable Incidents – clause 128 / clause 178 / clause 179
- Basic ventilation – both brattice & auxiliary fan. What makes air move. How do you “Degas” with both types?
- Emergency response – take control of the situation. Communicate to the control room & your crew. Lead your crew & delegate the tasks.

- Every type of mining (Longwall, Gateroad Development, Place Change or Pillar Extraction) have “Hazards” & therefore “Controls”. You must know both the Hazards & Controls. Do not just state “TARPs”. What is in the TARPs?
- Every time you answer a question (either written or oral exam) you must be able to “justify” your answer. Which mine you did it at, which mine you saw it at.

Remember: You must demonstrate that you are confident and competent to be a Deputy.

The annual Briefing Sessions are held for you to attend to be briefed firsthand in the above information and more, and to ask questions of the examiners as well.

Most of the candidates who passed both the written and the oral exams this year had attended a briefing session and therefore knew what was required of them at the exams.

More information

NSW Department of Planning, Industry and Environment

Resources Regulator

Mining Competencies and Authorisations

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Acknowledgments

Deputy of underground coal mines examination panel

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