

Deputy examination paper

Coal Mining Practice and Legislation – 1 September 2017

Instructions to candidates

Unless otherwise stated all references to Act and Regulations are to:

Work Health and Safety Act 2011

Work Health and Safety Regulation 2011

Work Health and Safety (Mines and Petroleum Sites) Act 2013

Work Health and Safety (Mines and Petroleum Sites) Regulation 2014

All five (5) questions are to be attempted.

All questions are of equal value - 20 marks each.

10 minutes reading time is allowed prior to the start of the examination.

Pen is to be used for all written answers.

Pencil can be used for any drawings/sketches.

Question 1 (total 20 marks)

You are the Deputy in a longwall two heading development unit with two continuous miners operating. The plan for the shift is for the belt road miner to hole the travel road.

- a) Explain what hazards you would discuss with your crew at the start of shift meeting. (5 marks)
- b) Explain how you would control any hazards during the shift. (15 marks)

Question 2 (total 20 marks)

- a) What are prescribed as a "serious injury or illness" under clause 178 of the *Work Health and Safety (Mines and Petroleum Sites) Regulations 2014*? (10 marks)
- b) What are prescribed as a "dangerous incident" under clause 179 of the *Work Health and Safety (Mines and Petroleum Sites) Regulations 2014*? (10 marks)

Question 3 (total 20 marks)

- a) What are the specified limits for: (10 marks)
 - i. Inhalable dust
 - ii. Respirable dust
 - iii. Respirable quartz
- b) State the sources of airborne dust in the following places and what controls you would expect to have in place to control this hazard. (10 marks)

- i. Longwall section
- ii. Development section
- iii. Place Change section
- iv. Outbye

Question 4 (total 20 marks)

- a) What are the signs/indications of a potential “Outburst”? (5 marks)
- b) What controls would you expect to find in the Principal Hazard Management Plan for Outburst? (5 marks)
- c) What are the signs/indications of “Spontaneous Combustion”? (5 marks)
- d) What controls would you expect to find in the Principal Hazard Management Plan for Spontaneous Combustion? (5 marks)

Question 5 (total 20 marks)

You are the longwall Deputy on a weekend with two 12 hour back-to-back shifts.

As you and your crew of six people are travelling out along the gate road you receive a PED message stating that the longwall belt Loop Take Up (LTU) CO monitor has alarmed.

On investigation you discover a collapsed LTU return roller and a fire in the build-up of fines.

- a) Explain your actions to extinguish the fire. (15 marks)
- b) Explain your actions after the fire has been extinguished. (5 marks)

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