Example of typical standard 11 questions from recent experience

Element 1: Plan and prepare for escaping from hazardous situations unaided

1.1 Access, interpret and apply emergency response and rescue documentation and ensure the work activity is compliant

Question	Answer	Comment
1. The Emergency Management System for a mine site is generally based on the following principles: (circle the correct responses)	a) Risk management process shall be utilised in managing emergencies at the mine b) The safety of personnel is foremost c) Survival of the fittest d) Response Plans shall be simple but effective	This is not a valid question for a new entrant. What difference does it make if they get one or two wrong?

1.2 Obtain, read, interpret, clarify and confirm work requirements

2. Why do we have prestart and toolbox talk meetings?		The right question is not WHY, but rather: • Who has to attend prestart meetings? • Where would you find out about hazardous activities that might be happening elsewhere in the mine today? • Where would you report a concern about a planned work activity?

1.3 Identify and address potential risks, hazards and environmental issues and implement control measures

3. List three (3) potential hazards in an underground coal mine?	1) 2) 3)	Maybe. Good question to reinforce earlier days' learning. Nothing to do with "Identify and address potential risks, hazards and environmental issues and implement control measures."

1.4 Select and wear personal protective equipment appropriate for work activities

4. Mine workers in areas of the mine where the contaminant concentration is in excess of the Maximum Exposure Limit shall don their self-rescuer or other respiratory protection device and immediately withdraw to a place of safety in known fresh air.	True / False	How would a new starter know the current concentration?

1.5 Interpret alarms and indicators to determine the type, cause and severity of the hazardous situation

5. At what temperature is it unsafe for coal mine workers to work?	a) 29.4°c b) 30.0°c c) 29.2°c d) 29.3°c	How would they know? The question is "what do you do if you feel too hot to work?" Or "what would you do if there is an unexpected change in working conditions?"

1.6 Assess hazard/danger and determine the safest escape option and/or route in consultation with other workers

6. Is a crib room underground considered a place of safety for coal mine workers to evacuate to?	Yes / No	The question should be "Give an example of a 'the place of safety?' you would go to if the ventilation stopped?"

1.7 Identify, establish and maintain communication systems with other personnel during the emergency

7. In an emergency where verbal communication is not possible, the use of non-verbal communication by tapping on handset of phone or on DAC can be used. How many taps would you use for:	Yes – No –	Good question

Element 2: Assess and withdraw from hazardous situation

2.1 Identify and assess the hazardous situation

8. An underground mine's safety and health management system must provide for the self-escape of persons from the mine, or a part of the mine, to a place of safety.	True / False	It is 1300 pages long, so that would probably be in there somewhere. The obligation to provide the system is on the employer. The requirement for the employee is to know the way out.
9. All coal mine workers will be familiarised with escapeway plans, storage locations and work areas on a____monthly basis or as the need arises.	a) 3 Monthly b) 6 Monthly c) 12 Monthly	This is about an obligation on a supervisor or manager. For the worker, the question is "What should you be sure to find out if you are starting work in a new place? The answer is "the two ways out, the nearest phone, the location of first aid gear, the nearest fire depot, the location of the inspection board"

2.2 Evaluate the need to barricade-in and wait for external aided rescue

10. When evacuation is no-longer safe or practical, emergency refuge is designed to provide a safe and secure 'go-to' area for personnel to gather, barricade in and await extraction by external aid.	True / False	This is not a new starter question. Instructions to barricade would come by phone. If the question has to be asked it is about listing the things that would improve your safety if you couldn't get out. • Near a phone, (make contact to tell them you are there.) • Secure roof • In clear air, but out of potentially contaminated air flow

Suggested standard 11 questions aligned to competency units

RIIERR203D – Escape from Hazardous Situations Unaided (35/35)

Element 1: Plan and prepare for escaping from hazardous situations unaided

1.1 Access, interpret and apply emergency response and rescue documentation and ensure the work activity is compliant

1. Where would you find a plan of the escape ways from your workplace underground?

- In the muster area on the surface
- In the crib room
- At CABA refill stations
- At self rescuer caches

Any two of the above

2. How would you find the way out of the mine?

- Follow the Green droppers
- Follow the emergency exit signs

Either of these.

3. At least how many escapeways would there be from a normal working place underground?

- Two

4. Where would you expect to find emergency first aid equipment underground?

- In the crib room

5. What emergency equipment would you check for when starting in a new workplace?

- The nearest phone
- Two escapeways
- Fire equipment
- First aid equipment
- The self rescuer or CABA cache

Suggested standard 11 questions aligned to competency units

1.2 Obtain, read, interpret, clarify and confirm work requirements

6. Match the need for personal protection equipment with the jobs.

a) To be worn at all times in the mine
b) To be carried at all times when at the mine and worn if a hazard is found in a SLAM. That means the person doing the job decides.
c) To be worn most of the time, but not when doing some jobs, like working with rotating machinery
d) To be warn when required by a sign, Job Step Analysis or Standard Operating Procedure.

- Gloves
- Safety helmet
- Safety boots
- Dust mask
- Chemical filter mask
- Hearing protection
- Safety glasses
- Hi vis clothing

7. You have been given a job by your supervisor, who has now left to go to other work places. Another crew has now come in and is working near you, spraying chemicals. What would you do?

a) Continue working, doing what the supervisor said
b) Stop work and phone the supervisor
c) Ask the other crew to do a Job Step Analysis with you
d) Find a way to do your job so that the chemicals are not coming near you.

8. There was a strong air flow in your work place before, but now there is much less air movement. The conveyor belt in the next roadway has stopped running. What would you do?

a) Keep working
b) Keep working for 30 minutes and if the air does not come back, walk out
c) Go inbye to the crib room to phone control. The crib room is about 500 metres inbye.
d) Walk out the escape road until you come to a phone, then phone control
e) Go the belt road and call control on the DAC

1.3 Identify and address potential risks, hazards and environmental issues and implement control measures

9. List 3 potential hazards in an underground coal mine, and for each, write one control that is used to reduce the risk.

Hazard	Control
1	
2	
3	

1.4 Select and wear personal protective equipment appropriate for work activities

10. Match the need for personal protection equipment with the jobs.

(a) To be worn at all times in the mine

(b) To be carried at all times when at the mine and worn if a hazard is found in a SLAM. That means the person doing the job decides.

(c) To be worn most of the time, but not when doing some jobs, like working with rotating machinery

(d) To be warn when required by a sign, Job Step Analysis or Standard Operating Procedure.

— Gloves
— Safety helmet
— Safety boots
— Dust mask
— Chemical filter mask
— Hearing protection
— Safety glasses
— Hi vis clothing

1.5 Interpret alarms and indicators to determine the type, cause and severity of the hazardous situation

11. Name three cases where an alarm may sound because of a hazard.

- 555 ringing on surface
- Conveyor going to start
- Vehicle going to move
- High gas level

12. Name three things that may show that you need to take emergency action if you are on your own.

- Smell smoke
- Air movement changes
- Injured person
- Gas alarm sounds
- Emergency message over DAC

1.6 Assess hazard/danger and determine the safest escape option and/or route in consultation with other workers

13. What colour droppers say that you are:

Travelling towards the face?	
Going towards the emergency assembly point in the secondary escapeway?	
Going out along the main travelling road?	

14. When would you put on your self rescuer, if you were alone and not near a phone?

- Smelt smoke
- PED message

15. When would you take off your self rescuer, if you had put it on when you were alone, because you felt it was needed in an emergency?

- Confirmed fresh air by someone else
- Confirmed fresh air by phone
- On the surface
- Reached a fresh air refuge point

16. Which is the better choice if you are escaping by walking out with other people?

a) All travel together
b) Let the strongest and fittest go first to raise the alarm and call for help
c) Have a discussion with the others to choose the best way
d) Stay near the first phone and let the rescue teams come and get you

Assess hazard/danger

1.7 Identify, establish and maintain communication systems with other personnel during the emergency

17. If you couldn't talk because you were wearing a self rescuer, how would you send a message using a phone?

- Call control and tap on the mouthpiece

Using that way, how would you show you were not able to speak?

- Tap 5 times

How would you say NO?

- Tap 2 times

How would you say YES?

- Tap 3 times

Element 2: Assess and withdraw from hazardous situation

2.1 Identify and assess the hazardous situation

18. List three cases when you should leave your workplace and go to a safe place?

- Received PED message
- Told by supervisor
- Smelt smoke
- Roof working
- Gas monitor shows alarm

19. If you have left your workplace because you were worried about the roof or sides, what would you do next?

- Report to control (or supervisor)

20. For each of these cases, pick the safe place you would go to from this list

A. To the crib room

B. Towards the surface by the primary escapeway

C. To the secondary escapeway

D. To the CABA cache

E. To a well-ventilated place where the roof and sides were secure

F. To the nearest phone

G. Towards the working face

H. To the District Inspection Board

Cases

— You see or smell smoke

— Three roof bolts have snapped, and the roof is making a bumping noise

— The workplace has gotten hotter and there is not as much air movement as there was

— A pipe has burst and there is deep water across the travelling road

2.2 Evaluate the need to barricade-in and wait for external aided rescue

21. If you are not able to escape from the mine, what list two features you would look for in a place while waiting to be rescued?

- *Away from gas or smoke*
- *Near a phone*
- *Near a main roadway*
- *Near a cache*

2.3 Withdraw, if safe, via selected escape route

22. Which of these shows

— the Primary Escapeway
— the Secondary Escapeway
— Travelling inbye

(a)

(b)

(c)

Suggested standard 11 questions aligned to competency units

Mining word list

Many everyday words have a different meaning in mining. Make a list as you hear new meanings.

Some examples of words that miners need to know to stay safe

Underground	Underground	Surface	All
Rib	Crush	Excavator	Isolation
Stonedust	Chain	Digger	Accident
Roofbolt	Intake	Berm	Shot
Deputy	Return	Windrow	Band
Fall	Road	Shovel	Seam
Air	Heading	Tray	Parting
Door	Deck	Dragline	Bank
Inbye	Butterfly	Circuit	Bottoms
Outbye	Downcast	Overburden	Dyke
Brattice	Upcast	Interburden	Fault
Outburst	Gate	Ramp	Roll
Blower	Longwall	Drill	Cutter
Overcast	Maingate	Highwall	Greasyback
Self rescuer	Tailgate	Low wall	Intrusion
Brush	Pillar	Bund	Cleat
Cage	Winder	Tip	Pit
Guides	Drift	Dump	Bed
Anchor	Height	Rehab	Dam
Plate	Shuttle car	Prestrip	Pump
Face	Goaf	Reject	Gas
Chock	Development	Strip	Conveyor
Shield	Split		Dip
Support	Monitor		Grade
Stopping	Regulator		Outcrop
Shaft	Belt		Cover
Cog	Roller		Loader
Cob	Flume		Grader
Vent	Collar		Dozer
Creep	Borer		Bin
Swilly			Washery
Tube			Decline
Mesh			Froth
Prop			ROM
Bar			Tailings
Cutthrough			Boxcut

Standard 11 Revised Assessments

Prepared by John Sleigh

This material is for illustration only.

It is an indication of what can be done.

It is made available to interested parties at no charge as a starting point for discussion.

Additional documents which are also available on request map the content to National Competencies and the Queensland Coal Mining Safety and Health legislation.

Together, these documents provide the content for a high quality Standard 11 program.

Formatting

The Competency is marked in this format

The Element is marked in this format

The Criteria are marked in this format

1. **A question looks like this**

    - A correct answer is like this
    a) A multiple choice answer is like this
    — Where you re asked to match one of several options, the options are the same as multiple choice questions and you are asked to mark the letter on this line

A comment is marked like this