

# Practice Aptitude

# QUIZ

**Surface Extraction**

## Surface Extraction

### Practice Aptitude Quiz

It is critical for young people to build their career management skills so they can make informed choices regarding their study and training options and navigate a pathway toward their occupation and career of choice.

This career development resource combines labour market information with a practical industry specific activity to help develop awareness about the skills needed to pursue a career pathway in the Surface Extraction Industry.

## PART 1: About the surface Extraction Industry

### 1. The Surface Extraction Industry in a nutshell

#### Key sectors:

- > Metalliferous Mining
- > Open Cut Coal Mining
- > Quarrying

Surface Extraction involves mining on sites such as an open cut coal mine, a quarry or an open cut metalliferous mine.

**Open Cut Coal Mining** covers brown and black surface coal extraction. Australia is the world's largest coal exporter and is the fourth largest producer of black coal.

**Open Cut Metalliferous Mining** includes metals, industrial minerals and semiprecious stones and involves the following activities: Open cut mining; underground mining; mine development; processing; haulage and transport; site rehabilitation; and blasting. Metallic minerals include: bauxite, iron ore, lead concentrate, mineral sands, beneficiated ilmenite, ilmenite concentrate, leucoxene concentrate, rutile concentrate, zircon concentrate, zinc concentrate and zinc-lead concentrate.

**Quarrying** provides raw materials such as sand, gravel, crushed rock and clay that are processed into raw material inputs for use in many building and industrial processes.

Surface Extraction is a major part of the broader Australian minerals industry which is defined as covering the exploration and mining of minerals and the associated minerals processing industry.

Over 48 percent of all Australia's exports are minerals and we are in the top five producers of most of the world's key minerals commodities. The industry directly employs over 158,000 people (Source: [Australian Minerals Industry factsheet](#)).

## 2. Key occupation information

(Sourced from: Job Outlook - [www.joboutlook.gov.au](http://www.joboutlook.gov.au); Australian Jobs 2012 - [www.deewr.gov.au/Employment/ResearchStatistics/Documents/AustralianJobs.pdf](http://www.deewr.gov.au/Employment/ResearchStatistics/Documents/AustralianJobs.pdf); and My Career - [www.mycareer.com.au/salary-centre/mining-oil-gas/](http://www.mycareer.com.au/salary-centre/mining-oil-gas/))

### Weekly average earnings for major occupations:

- > Quarry Worker - \$1,150
- > Open Cut Coal Miner - \$1,700
- > Plant Operator - \$1,500
- > Shotfirer - \$2,600
- > Surface Miner - \$1,300
- > Mine Manager - \$3,600
- > Quarry Supervisor - \$1,900

Occupation size total for drillers, miners and shot firers - 43,500

### Jobs and demand information

**Quarry Workers** work in quarries that supply processed rock, sand, gravel, minerals, metal ores and coal for many building and industrial processes. Quarry workers use excavating, transporting, crushing and processing equipment to extract and process minerals for items such as toothpaste, paint, steel, lime, bricks, talcum powder, tarmac, glass, fertiliser, acids, concrete, cement, chemicals, plastics and ceramics.

- > Job prospects - Average
- > Weekly earnings - \$1,150

Potential entry level qualifications:

- > Certificate II in Surface Extraction Operations
- > Certificate III in Surface Extraction Operations

**Plant Operators** operate stationary and mobile cranes, hoists, lifts and winches to lift, move and place materials and equipment in a range of mining operations locations. There are a range of specific Plant Operator roles which are explained below:

- **Bogger Operators** are responsible for transporting or bogging waste rock and soil or ore onto trucks or to different parts of a mining operation;
- **Excavator Operators** use excavators to dig, move and load earth, rock or other materials. They may perform some of the following tasks: load and unload plant from low loaders and manoeuvre it around site operations; communicate with truck drivers and other personnel to coordinate operations; operate excavating equipment to correct levels and alignment working from drawings and markers; back-fill trenches; select and change excavator attachments; and service equipment;
- **Bulldozer operators** operate bulldozers using the blade and other attachments to gouge out and move rock, earth and other materials. They may perform some of the following tasks: operate the

plant to move overburden; carry out basic maintenance, adjustments and repairs to plant; carry out pre-start checks; set levels; and use machines to anchor form, and remove obstruction on roads;

- **Grader Operator** use graders to spread and level materials on site. They may perform some of the following tasks: level surfaces by making repeated passes over working areas and observing survey pegs or signals from co-workers; dig out ditches by tilting grader blade; break up surface with scarifying attachments, and Service equipment regularly;
  - **Scraper Operators** drive scrapers which pick up, haul, deposit and level earth on mining sites. They may perform some of the following tasks: drive machines to scrape surfaces to a given depth and collect material in their bowls to be deposited elsewhere on site; dump and spread material following the guidance of survey pegs, and service and make minor repairs to the equipment;
- > Job prospects - Above average
  - > Weekly earnings - \$1,500 plus

Potential entry level qualifications:

- > Certificate II in Surface Extraction Operations
- > Certificate III in Surface Extraction Operations

**Open Cut Coal Miners** operate specialist equipment to excavate, load and transport ore, coal and rock in underground or open-cut mining operations. They may specialise as Airleg Miners, Jumbo and Longhole Drill Operators, Continuous Mining Machine Operators, Longwall Miner Operators, Development Machine Miners and Mechanical Bogger Operators.

- > Job prospects - Average
- > Weekly earnings - \$1,700

Potential entry level qualifications:

- > Certificate II in Surface Extraction Operations
- > Certificate III in Surface Extraction Operations

**Surface Miners** operate drilling rigs to drill holes in the benches of open cuts, according to the blast pattern, and load holes with explosives and trigger the blast. They also operate excavating or ripping machines to remove overburden, coal, ore and rock. Other roles may include the operation of loading equipment to load trucks for the transport of material to stockpile or treatment, the operation of bulldozing equipment to move materials into place for dredging, and the operation of mobile plant machinery to develop and maintain benches, haul roads and stockpiles.

- > Job prospects - Above average
- > Weekly earnings - \$1,300

Potential entry level qualifications:

- > Certificate II in Surface Extraction Operations
- > Certificate III in Surface Extraction Operations

**Shotfirers** assemble, position and detonate explosives at mining sites to dislodge rock or soil. They may perform the following tasks: inspect blasting areas and ensure observance of safety regulations; cut channels under working faces; check bore-hole depths and clean holes; place explosives into position; assemble primers using detonators and explosive cartridges, and attach wires, fuses or detonating cords; test electrical circuits and repair malfunctions; and ensure all explosives are detonated and declare areas safe.

- > Job prospects - Above average
- > Weekly earnings - \$2,600

Potential entry level qualifications:

- > Certificate III in Surface Extraction Operations

**Mine Supervisors** regularly inspect mine sites and roadways to check that conditions are safe and ensure compliance with safety regulations and emergency procedures. They also supervise shotfiring and conduct tests to detect gas or insufficient ventilation.

- > Job prospects - Above average
- > Weekly earnings - \$2,500 plus

Potential entry level qualifications:

- > Certificate III in Surface Extraction Operations
- > Certificate IV in Surface Extraction Operations

## About the qualifications

Qualifications provide the core skills, knowledge and experience (competencies) required for effective performance on the job plus the option of choosing a range of elective competencies that meet the needs of the employer and the individual.

Employability Skills are non-technical skills. They are also sometimes referred to as generic skills, capabilities, enabling skills or key competencies.

The Employability Skills are:

- > Communication skills that contribute to productive listening and understanding, speaking clearly and directly and harmonious relations across employees and customers;
- > Teamwork skills that contribute to productive working relationships and outcomes;
- > Problem-solving skills that contribute to productive outcomes;
- > Initiative and enterprise skills that contribute to innovative outcomes;
- > Planning and organising skills that contribute to long and short-term strategic planning;
- > Self-management skills that contribute to employee satisfaction and growth;
- > Learning skills that contribute to ongoing improvement and expansion in employee and company operations and outcomes; and
- > Technology skills that contribute to the effective carrying out of tasks.

### 3. Career Pathways Websites

- > Australian Apprenticeships Pathways - view potential career pathways for this industry - [www.aapathways.com.au/Search/Job-Pathway-Charts/Charts?ind=13318](http://www.aapathways.com.au/Search/Job-Pathway-Charts/Charts?ind=13318)
- > Skills DMC Career Pathways for Surface Extraction - [www.skillsdmc.com.au/pathways/quarrying](http://www.skillsdmc.com.au/pathways/quarrying)

Other useful careers sites are:

- > My Future - [www.myfuture.edu.au](http://www.myfuture.edu.au)
- > Job Guide - [www.jobguide.thegoodguides.com.au](http://www.jobguide.thegoodguides.com.au)
- > Career Factsheets - [www.ncdw.com.au/index.php/Career-Factsheets.html](http://www.ncdw.com.au/index.php/Career-Factsheets.html)

### 4. Job Hunting

**Job vacancy website:**

- > **Australian Job Search** - [jobsearch.gov.au/findajob/advancedsearch.aspx](http://jobsearch.gov.au/findajob/advancedsearch.aspx) The Australian Government's job site. Input your postcode, select the Occupation Category "Machinery Operators And Drivers", scroll down to the "Additional Search Criteria" section and click on "Apprenticeships/ Traineeships", then click on the "Find Jobs" button.

**Job hunting hints and labour market information:**

- > **Australian Apprenticeships Pathways** - [www.aapathways.com.au](http://www.aapathways.com.au) click on "Search" to find potential Australian Apprenticeships occupation ideas. You can also find Job Hunting hints in the "Self Help" menu item.
- > **My Future: Labour Market Information** - [www.myfuture.edu.au/en/The%20Facts/Work%20and%20Employment/Labour%20Market%20Information.aspx](http://www.myfuture.edu.au/en/The%20Facts/Work%20and%20Employment/Labour%20Market%20Information.aspx) Click on the map or use the drop down menu to find general labour market information for your region including top occupations and incomes. Data is based on the most recently available census.

### 5. Useful Contacts

**Here are some links to a range of support services, organisations and government agencies that may help with careers research and job hunting:**

**Support services:**

- > Search for your local Australian Apprenticeships Centre - [www.aapathways.com.au/Search/Australian-Apprentice-Centre](http://www.aapathways.com.au/Search/Australian-Apprentice-Centre)
- > Group Training Organisations employ Australian Apprentices and places them with businesses - [www.grouptraining.com.au](http://www.grouptraining.com.au)
- > Job Services Australia providers work with eligible job seekers to develop an individually tailored Employment Pathway Plan. The plan maps out the training, work experience and additional assistance needed to find job seekers sustainable employment - [www.jobsearch.gov.au/provider/pages/whichprovider.aspx](http://www.jobsearch.gov.au/provider/pages/whichprovider.aspx)

## Industry Organisations:

- > The Institute of Quarrying Australia - [www.quarry.com.au](http://www.quarry.com.au)
- > Minerals Council of Australia - [www.minerals.org.au](http://www.minerals.org.au)
- > Australian Mines and Metals Association - [www.amma.org.au](http://www.amma.org.au)
- > Australasian Institute of Mining and Metallurgy - [www.ausimm.com.au](http://www.ausimm.com.au)
- > Mine Managers Association of Australia - [www.minemanagers.com.au/site/index.cfm](http://www.minemanagers.com.au/site/index.cfm)
- > NSW Minerals Council Ltd - [www.nswmin.com.au](http://www.nswmin.com.au)
- > Queensland Resources Council - [www.qrc.org.au](http://www.qrc.org.au)
- > Australian Mines Atlas - [www.australianminesatlas.gov.au](http://www.australianminesatlas.gov.au)
- > Australian Workers' Union (AWU) - [www.awu.net.au](http://www.awu.net.au)
- > Construction, Forestry, Mining and Energy Union (CFMEU) - [www.cfmeu.asn.au](http://www.cfmeu.asn.au)

## Government Agencies:

- > Department of Industry, Innovation, Science, Research and Tertiary Education (Australian Government) - [www.innovation.gov.au/Pages/default.aspx](http://www.innovation.gov.au/Pages/default.aspx)
- > Queensland Department of Mines and Energy - [www.dme.qld.gov.au/home.cfm](http://www.dme.qld.gov.au/home.cfm)
- > Western Australian Department of Mines and Petroleum - [www.dmp.wa.gov.au/index.aspx](http://www.dmp.wa.gov.au/index.aspx)
- > Tasmanian Department of Infrastructure, Energy and Resources - [www.mrt.tas.gov.au](http://www.mrt.tas.gov.au)
- > Northern Territory Department of Resources - Minerals and Energy - [www.nt.gov.au/d/Minerals\\_Energy](http://www.nt.gov.au/d/Minerals_Energy)
- > Victorian Department of Primary Industries - [www.new.dpi.vic.gov.au/earth-resources](http://www.new.dpi.vic.gov.au/earth-resources)
- > NSW Division of Resources and Energy - [www.resources.nsw.gov.au](http://www.resources.nsw.gov.au)
- > South Australian Department of Primary Industries and Resources - [www.pir.sa.gov.au/minerals](http://www.pir.sa.gov.au/minerals)

## Part 2: About this Resource

# QUIZ

### Guidance

This Practice Aptitude Quiz is intended to be a general illustration of some of the key learning standards required of people attempting an Australian Apprenticeships entry level qualification in the Surface Extraction Industry.

**This Practice Aptitude Quiz is neither a formal assessment tool nor a direct pre-requisite for any job application.**

The Quiz focuses on literacy, numeracy, comprehension and problem solving questions contextualised to this specific industry.

This Quiz has been developed with the assistance of industry, training providers and the secondary school sector as a careers resource.

The Quiz can be used by a number of different organisations and people such as careers practitioners working with young people, Group Training Organisations and Job Services Australia providers with job seekers.

The Practice Aptitude Quiz can be:

- Used by careers practitioners with individuals or in a class setting to provide general guidance on the level of study involved in undertaking an entry level qualification in these industries;
- Provided to people to enable them to practice their skills before sitting an actual aptitude test;
- Used by Mathematics teachers as a guide to industry math requirements at the entry point of this particular Australian Apprenticeship career path;
- Used by teachers as classroom based activities for students in Year 11 and 12 and VET-centred studies.

The level of reading, writing and arithmetical skills assessed by this Quiz is equivalent to that of a young person at Year 10 or 11 levels.

Please note that rates quoted in this assessment for various items, including pay rates, are not meant to reflect today's values, but are used purely for mathematical purposes.

**The Quiz should be able to be completed in approximately 60 minutes.**

Calculators may be used to complete this practice exercise.

Answers are located at the end of the quiz.

### After the Quiz



## After the Quiz

There are a range of support services available to help you find out about courses that may help you improve your literacy and numeracy skills and also your readiness for work.

If you are still at school you should discuss any concerns you may have with your career practitioner. Further information may also be provided by a Job Services Australia provider, an Australian Apprenticeships Centre, a Group Training Organisation or a training provider.

## Useful Contacts

Here are some links to job seeker support services:

- > Search for your local Australian Apprenticeships Centre - [www.aapathways.com.au/Search/Australian-Apprentice-Centre](http://www.aapathways.com.au/Search/Australian-Apprentice-Centre)
- > Find a local Group Training Organisations - [www.grouptraining.com.au/Find/find\\_gto.html](http://www.grouptraining.com.au/Find/find_gto.html)
- > Job Services Australia providers work with eligible job seekers to develop an individually tailored Employment Pathway Plan. The plan maps out the training, work experience and additional assistance needed to find job seekers sustainable employment - [www.jobsearch.gov.au/provider/ProviderLocation.aspx?ProviderType=JNS&](http://www.jobsearch.gov.au/provider/ProviderLocation.aspx?ProviderType=JNS&)

## Part 3: The Quiz

# QUIZ

### Section 1 - Literacy, Reading and Comprehension

1. Rearrange the following words in alphabetical order:

- Open pit \_\_\_\_\_
- Explosives \_\_\_\_\_
- Mineral \_\_\_\_\_
- Safety \_\_\_\_\_
- Excavator \_\_\_\_\_
- Supervisor \_\_\_\_\_

2. The following are jobs you may find on a mine site. Match each job title to the appropriate job description below.

- i. Mine Manager
- ii. Shotfirer
- iii. Miner
- iv. Haul Truck Driver
- v. Human Resources Recruitment Officer

a. Interviews and recruits new staff to fill vacant positions in the mine.

\_\_\_\_\_

b. Operates the truck which moves material from the pit to the crusher.

\_\_\_\_\_

c. Charges up blast holes and fires the explosives which create loose material for the shovel operator to put into the haul trucks.

\_\_\_\_\_

d. Mines out ore and waste rock from the ore body.

\_\_\_\_\_

e. Manages the daily running of the mine and responsible for safe and efficient production of the mined material.

\_\_\_\_\_

**3. The following text has 11 spelling errors. List the mistakes below, as you find them.**

Occupational Helth and Safely is an important part of your everyday working life. The use of personal protective equitment is madatory in the workplase. Equitment can include googles, stell capped boots, hard hats and heat and fire resitent gloves. You muk read safety signs and be careful with haevy lifting.

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**4. Read the following about 'Duty of Care' and answer the questions below.**

**Duty of Care**

All workplaces must follow state and territory Health and Safety Acts. While these differ slightly between states, they are always about creating and maintaining a safe and healthy working environment.

Out of these Acts comes duty of care legislation, which has different requirements for employers and employees. Duty of care means that everything within reason must be done to protect the health and safety of people at the workplace. This duty is placed on:

- > employers
- > employees
- > any others who have an influence on hazards in a workplace

The following table shows some of the major responsibilities under duty of care legislation for both employers and employees.

Employer's obligations	Employees obligations
Provide and maintain a safe workplace	Find out what you need to know to act safely
Provide training, information and supervision to all employees to ensure their health and safety	Follow instructions, safety rules and procedures relating to safety. For example report to the person in immediate authority when leaving work at the end of the shift
Provide adequate working conditions and facilities (light, air, space, protective equipment, sanitary facilities and meal areas)	Operational staff must use or wear the equipment provided (hard hat, gloves, ear and eye protection etc.)
Provide adequate information/signage/warning on potential hazards	Follow information, warning, safety and danger signs
Consult and co-operate with safety and health representatives	Co-operate with safety and health representatives
Keep record of injuries	Report hazards and injuries following site procedures
Monitor and review workplace conditions	Report potential hazards and unsafe conditions

# QUIZ

a. Who must follow state and territory Health and Safety Acts?

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b. What does 'Duty of Care' mean?

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c. Who has the obligation to provide a safe workplace?

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d. Who has the obligation to use or wear the equipment provided (hard hat, gloves, ear and eye protection etc.?)

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5. The 6 words below are misspelt. Correctly spell each one in the space provided.

Superviser	
Produkshon	
Aliminium	
Excarvater	
Safty	
Exploshive	

6. Read the following job descriptors and answer the questions that follow.

**Mobile Plant Operators** drive backhoes, bulldozers, excavators, front-end loaders, graders, scrapers, skid steer loaders, rollers and forklift trucks. The machines level, excavate, move and load earth, rock and other material. The job title may also be known as Bulldozer Operator, Earthmover, Grader Operator, Plant Operator, Quarry Face Loader, or Scraper Operator.

Mobile Plant Operators may perform the following tasks:

- > Prepare machines for operation;
- > Load and unload equipment from low loaders and move it around work sites;
- > Select, change and operate special attachments such as winches, scrub clearers, rippers, pile drivers and rock-breaking hammers;
- > Work from drawings and markers under the direction of supervisors and engineers;
- > Back-fill trenches;
- > Break up paving, rock and similar material by operating hydraulic or pneumatic breakers;
- > Excavate or scrape earth, rock or rubble to the correct level and alignment;
- > Load trucks with excavated fill;
- > Drive machines to and from work sites;
- > Service equipment by cleaning, lubricating and re-fuelling it and make minor adjustments and repairs when necessary;
- > Maintain duty of care for other users and work to Occupational Health and Safety requirements.

**Haul Truck Drivers** drive haul trucks (also known as dump trucks) which are off-highway, two-axle, rigid trucks specifically engineered for use in high production mining and heavy-duty construction environments.

In the mining and surface extraction industry drivers may perform the following tasks:

- > Check brakes, oil, tyres, electrical systems, water, hydraulic and air;
- > Load, or supervise loading material onto the truck;
- > Transport material to destination;
- > Maintain log books;
- > Service equipment by cleaning, lubricating and re-fuelling it and make minor adjustments and repairs when necessary;
- > Maintain duty of care for other users and work to Occupational Health and Safety requirements.

The work conditions for Mobile Plant Operators and Haul Truck Drivers can be hot, muddy, dusty and noisy, but most earthmoving machines and trucks have soundproofed and air-conditioned cabs for the operator/driver.

# QUIZ

## Questions

- a. Name three types of machines that a Mobile Plant Operator may drive.

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- b. Name two of the special attachments mobile plant vehicles may use.

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- c. Can a haul truck be used to excavate earth and back-fill trenches? Circle the correct response.

YES

or

NO

- d. Is a Haul Truck Driver usually responsible for the everyday vehicle maintenance such as checking the brakes, oil and tyres? Circle the correct response.

YES

or

NO

## Section 2 - Mathematical Questions

A calculator may be used

1. Which unit from the table below would you use to measure the following?

kg	ml	km/hr	m <sup>2</sup>
\$	m	min	°C

- a. Length \_\_\_\_\_
- b. Time \_\_\_\_\_
- c. Temperature \_\_\_\_\_
- d. Weight \_\_\_\_\_
- e. Area \_\_\_\_\_
- f. Speed \_\_\_\_\_
- g. Volume \_\_\_\_\_
- h. Cost \_\_\_\_\_

2. A Caterpillar 793 Haul truck has a fuel tank capacity of 4,354L. If diesel costs the mine \$1.50 per Litre, how much does it cost the mine to fill the truck?

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3. Express the following as decimals.

- a.  $\frac{1}{4}$  \_\_\_\_\_
- b.  $26.25 + 54.5 - 30.3$  \_\_\_\_\_
- c.  $7 \times 2 \div 5$  \_\_\_\_\_
- d.  $10 \div 4 + 3 \div 2 + 5 \div 4$  \_\_\_\_\_

4. Solve the following:

a.  $4,562 - 1,287$  \_\_\_\_\_

b.  $86 + 22 - 16$  \_\_\_\_\_

c.  $-25 + 82 + 5$  \_\_\_\_\_

5. Multiply the following:

a. 53.86 by 10 \_\_\_\_\_

b. 25.4 by 3 \_\_\_\_\_

c. 128.5 by 10 \_\_\_\_\_

6. Divide the following:

a. 2.56 by 10 \_\_\_\_\_

b. 1,024 by 8 \_\_\_\_\_

c. 256 by 4 \_\_\_\_\_

7. The Caterpillar 793 haul truck has a Gross Vehicle Mass (GVM) of 383 tonnes and it has a nominal payload of 218 tonnes. What percentage of the truck's GVM is the load it can carry? (Calculate to one decimal point.)

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8. As a plant operator Rebecca earns \$1,500 per week and is awarded a pay rise of 2%. What is her new weekly wage?

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## Section 3 - General Knowledge and Problem Solving

1. Personal Protective Equipment (PPE) includes clothing, equipment and substances designed to be worn by a person to protect them from risks of injury or disease. Which of the following is not an item of Personal Protective Equipment? Circle the correct response.

Hard Hat

Safety Glasses

Steel Capped Boots

Hammer

2. Which of the following is not a mined raw material? Circle the correct response.

Silver

Wood

Sand

Gold

3. Which of the following is not a commonly used mine site communication method. Circle the correct response.

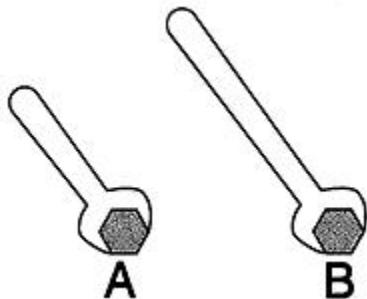
Mobile Phone

UHF Radio

Telegram

Warning Signs

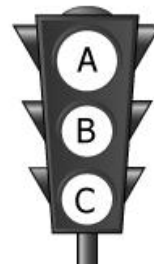
4. Which of the below wrenches will make it easier to tighten a bolt? Circle the correct response.



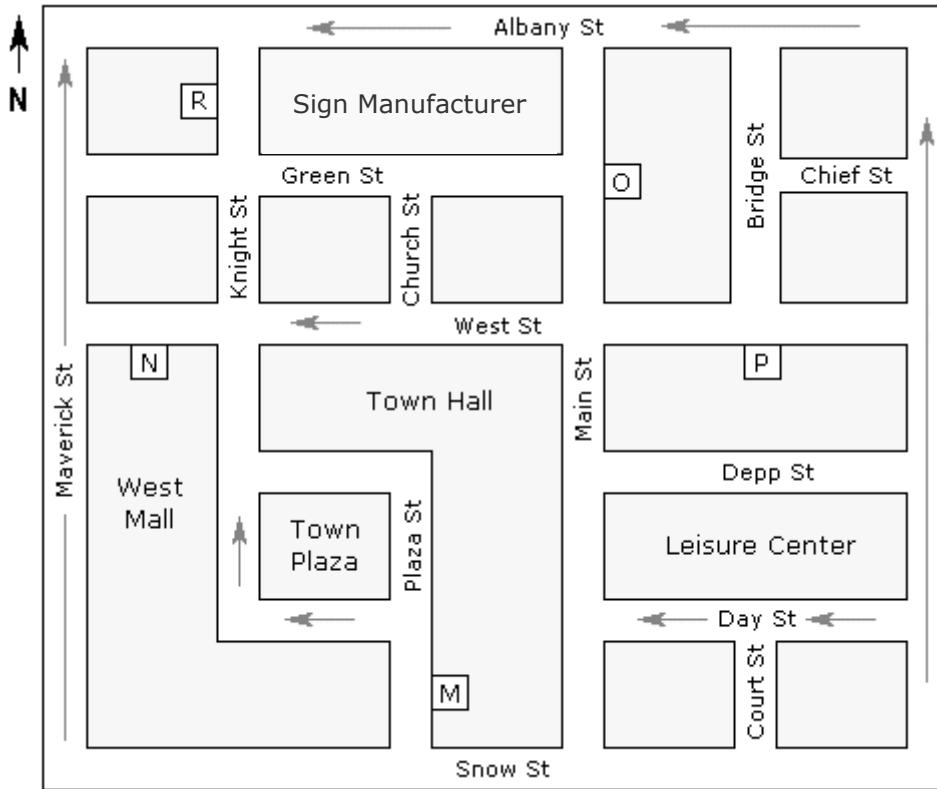
- a. A
- b. B
- c. There's no difference

5. In this typical traffic signal, which light is the red one? Circle the correct response.

- a. A
- b. B
- c. C



6. You are required to drive to the town nearest the mine to pick up some safety signage from the manufacturer. Look at the map below. You are in Depp St and can see the Town Hall to your right. What direction are you facing? Circle the correct response.



- a. North      b. South      c. East      d. West
7. Which is the most suitable tool for breaking up concrete? Circle the correct response.



- a. 1      b. 2      c. 3      d. 4      e. None

8. You are working on a mine site and see this sign on a track you want to use as a cut through to get to your worksite.



It looks like there is no-one in the area and you can't hear any noise of an explosion. Which is the best course of action? Circle the correct response.

- a. Use the track to get to your worksite as it is the most direct route.
  - b. Avoid the track completely as directed by the warning sign.
  - c. Run along the track quickly so that you are in the area for a minimal time, limiting any danger.
9. You are working on a mine site and find yourself in an area of the site that you have not been to before. You see the sign below which you are also not familiar with.



What is your best course of action? Circle the correct response.

- a. Avoid the area now, and ask for clarification of the meaning of the sign.
- b. Ignore the sign. As you are unfamiliar with the meaning of 'STOPE' it must not be important.
- c. Ignore the sign now and ask someone what 'STOPE' means later.

**Section 1 - Literacy, Reading and Comprehension**

1. Excavator  
Explosives  
Mineral  
Open pit  
Safety  
Supervisor
2.
  - a. v. Human Resources Recruitment Officer
  - b. iv. Haul Truck Driver
  - c. ii. Shotfirer
  - d. iii. Miner
  - e. i. Mine Manager
3. Health, Safety, equipment, mandatory, workplace, Equipment, goggles, steel, resistant, must, heavy.
4.
  - a. All Workplaces
  - b. Duty of care means that everything within reason must be done to protect the health and safety of people at the workplace
  - c. The Employer, Employees and others in the workplace
  - d. All operational staff
5.
 

Supervisor
Production
Aluminium
Excavator
Safety
Explosive
6.
  - a. Any three of: backhoes; bulldozers; excavators; front end loaders; graders; scrapers; skid steer loaders; rollers; and forklift trucks.
  - b. Any two of: winches; scrub clearers; rippers; pile drivers; and rock-breaking hammers.
  - c. No
  - d. Yes

**Section 2 - Mathematics**

1.
  - a. m
  - b. min
  - c. °C
  - d. kg
  - e. m<sup>2</sup>
  - f. km/hr
  - g. ml
  - e. \$
2. \$6,531.00
3.
  - a. 0.25
  - b. 50.45
  - c. 2.8
  - d. 5.25

4.
  - a. 3,275
  - b. 92
  - c. 62
5.
  - a. 538.6
  - b. 76.2
  - c. 1,285
6.
  - a. 0.256
  - b. 128
  - c. 64
7. 56.9%
8. \$1,530

### Section 3 - General Knowledge and Problem Solving

1. Hammer
2. Wood
3. Telegram
4. b. Wrench B is longer and provides more leverage.
5. a. A
6. b. South
7. c. 3
8. b. Run along the track quickly so that you are in the area for a minimal time, limiting any danger.
9. a. Avoid the area now, and ask for clarification of the meaning of the sign.

## Contributions

This Practice Aptitude Quiz was developed by:



**Australian Apprenticeships Pathways Website** - [www.aapathways.com.au](http://www.aapathways.com.au)

This website provides sample Australian Apprenticeships job descriptions and links to more Australian Apprenticeships information and resources. The site is funded by the Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE).



WESTERN INSTITUTE

**TAFE NSW Western Institute** - [www.wit.tafensw.edu.au](http://www.wit.tafensw.edu.au)

TAFE NSW Western Institute is a Registered Training Organisation (RTO) which manages 24 colleges and more than 34,000 student enrolments each year. More than 500 courses are offered and a flexible approach to delivery incorporates recognition for prior learning, online and distance learning, workplace delivery and assessment.



**The Career Education Association of Victoria** - [www.ceav.vic.edu.au](http://www.ceav.vic.edu.au)

The CEAV is the Victorian peak body for secondary school career practitioners, work experience coordinators, VET coordinators and MIPS coordinators. The CEAV provides professional development opportunities for members and also works with business, industry, and the education and training sector.



**Industry Training Australia P/L** - [www.itaust.com.au](http://www.itaust.com.au)

Industry Training Australia (ITA) delivers consultancy services to government and non-government organisations in the education and training sector. ITA develops and delivers information and communication services, including the Australian Apprenticeships Pathways website, for service provider networks and the general public.

**For enquiries about this Practice Aptitude Quiz contact the Australian Apprenticeships and Traineeships Information Service on 1800 338 022.**