

Dental Assisting

Part 1: About the Dental Assisting Resource

Guidance

The 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 Dental Assisting.

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

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

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

The quiz can be utilised by numerous organisations and people such as careers practitioners working with young people, Group Training Organisations and Job Services Australia providers working 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 this industry;
- Provided to people to enable them to practice their skills before siting an actual aptitude test;
- Used by Mathematics teachers as a guide to industry maths requirements at the entry point of this particular Australian Apprenticeship.

The level of reading, writing and mathematical skills assessed by this quiz is equivalent to that of a typical young person at Year 10 level.

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 guiz should be able to be completed in approximately 45 minutes.

Calculators may be used to complete this practice exercise.

Answers are located at the end of the quiz.

Occupational Information and Job Hunting Resources

Information and links about the Dental Assisting careers, job prospects as well as career websites and job hunting resources can be found at www.aapathways.com.au/Industry



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 an employment service provider, an Australian Apprenticeships Support Network (Apprenticeship Network) provider, 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 Support Network (Apprenticeship Network) provider www.aapathways.com.au/sps

Find a local Group Training Organisation www.grouptraining.com.au/Find/find_gto.html

Employment service providers work with eligible job seekers to develop an individually tailored plan. The plan maps out the training, work experience and additional assistance needed to find job seekers sustainable employment - https://jobsearch.gov.au/



Dentine Enamel Injection

Part 2: The Quiz

Section 1 – Literacy, Reading and Comprehension

1. Write the following words in alphabetical order.

Mandible	Alloy	Ceramic	Autoclave	
Sanitise	Venee	Plaque	Tartar	
Orthodontic	Abscess	Cusp	Diagnostics	

2. Read the following information about working as a Dental Assistant and answer the questions that follow.

A Dental Assistant (sometimes known as a Dental Nurse) works closely with a Dentist or Dental Hygienist in all stages of the patient's treatment.

An effective Dental Assistant needs to be able to communicate well, have good interpersonal skills, be well organised, manage their time effectively, and have an interest in health care.

The daily routine for a Dental Assistant

The first thing that a Dental Assistant does when they arrive at work is to change out of their street clothes into a clean uniform or surgery gown.

Sterilisation Room

This is where instruments are sterilised and reprocessed. The Dental Assistant turns on the autoclaves (sterilisation equipment) and runs all necessary tests to check the autoclaves are reaching the required temperature. The Dental Assistant also fills the ultrasonic cleaner with water and the appropriate cleanser.



Assisting with Administration

The Dental Assistant turns on the computer and opens the appointment book. They print out the day's appointment sheet. That is, the list of today's patients and procedures.

A morning meeting is held where staff have the opportunity to discuss the day ahead. This could include speaking with the Dentist about a particularly nervous patient, or a difficult procedure.

Most dental surgeries have a Receptionist, however from time to time the Dental Assistant may need to help out. This may entail answering the phone, greeting clients, making appointments, taking payments, accounts keeping and computer-based work.

Surgery set up

The surgery needs to be set up before the arrival of the first patient.

The Dental Assistant washes their hands and puts on appropriate Personal Protective Equipment (PPE).

The Dental Assistant checks the day's appointment sheet to see what the first appointment is. It may be for a:

- clean and scale;
- composite resin filling;
- crown preparation;
- root canal therapy;
- tooth extraction:
- surgical procedure.

The Dental Assistant greets the patient and shows them through to surgery, all the while making light conversation to put the patient at ease.

The Dental Assistant asks the patient to sit in the dental chair and then places a bib and protective glasses on the patient.

Assisting the Dentist

A Dental Assistant is an important addition to the dental surgery. Without a Dental Assistant, the Dentist could find it very difficult to operate efficiently. Dental Assistants help by using the high-speed evacuation device, preparing and mixing materials, developing and mounting x-rays and passing instruments.

When the dental procedure is complete the Dental Assistant needs to prepare the surgery for the next patient. This must be done systematically to avoid mistakes. They must wipe down all surfaces with approved disinfectant or neutral detergent, place barriers on areas that are difficult to clean and set up for the next procedure according to the day's appointment sheet.



a.	List five personal qualities that an effective Dental Assistant should possess.
b.	List three types of dental procedures that a Dental Assistant may assist with.
c.	What is an autoclave?
d.	What does PPE stand for?

3. Read the following extract and answer the questions that follow.

An infection occurs when a pathogenic microbe is able to multiply in the tissue in which it is lodged. An infectious disease is one that is communicable or contagious. These terms mean that the disease can be transmitted (spread) in some way from one host to another. Therefore, it is essential that all Dental Health Care Workers have a full understanding of infection control policies and procedures.

- Dental staff should remove jewellery prior to commencing work within the dental surgery.
- Dental staff must wash their hands in the following circumstances:
 - Prior to seeing new patients;
 - Before and after gloving;
 - After touching contaminated objects or surfaces;
 - Prior to eating;
 - After using the bathroom.
- Dental staff who have open cuts must cover the wound with a waterproof plaster or Band Aid, to prevent microorganisms entering the body.
- Artificial nails are not allowed as they harbour bacteria and have potential to puncture the protective gloves.
- Some examples of infections could be Lockjaw better known as Tetanus, Hepatitis C, Hepatitis B or HIV.

Answer the following questions by circling the correct answer/s.

a. The goal of an infection control program is to prevent disease transmission to:

- **i.** The patient from the staff.
- ii. The staff from the patient.
- iii. The patient from another patient.
- iv. All of the above.

b. As a Dental Assistant when should you wash your hands?

- i. Before you glove.
- ii. After you remove your gloves.
- iii. Both of the above.
- iv. None of the above.



c.	lt i	s considered sa	afe practise to wear jew	vellery under latex g	loves.
	i.	True.			
	ii.	False.			
d.	An	other term for t	he disease called Loc	kjaw is:	
	i.	Hepatitis.			
	ii.	Bacterial er	ndocarditis.		
	iii.	. Tetanus.			
4.	Ciı	rcle the correct	spelling of the miss	ing word in each of	the sentences below
	a.	Mr Aaron Dang about his appoi	came into the surgery t	oday. He was very	
		nervos	nervous	nervise	nervouse
	b.	Mr Dang completelsewhere by a	ained about the long certain time.	as h	ne needs to be
		weight	whate	wate	wait
	c.	Mr Dang has worked out a tre	with eatment plan.	n the Dentist his conce	erns and together they
		discussed	dicussed	disccussed	diccussed
	d.	Mr Dang has has booked in f	to (or his first appointment.	go ahead with Dr Lily \$	Singh's suggestions and
		deecided	desided	deiceded	decided
	e.	Mr Dang has te	lephoned the surgery ar	nd asked about	to park.
		where	wear	were	waer



f.		es and requests to use the Dang where the men's		The Receptionist
	ammennitis	amenities	amenitis	armenitis
g.		stant shows Mr Dang into		and makes light
С	onfersation	convisation	conversation	consifation
h.	-	s to know what is going t and let him kno		•
pr	rucdure	procedure	prudcedure	procdure
i. [_	ked Mr Dang to have so	me radiographs done	and you explain why it is
ne	cessary	necesary ne	easasary r	nesasary

5. Circle the six spelling and grammar mistakes in the following paragraph below.

Fluoride is a naturally ocurring mineral that is found in many forms. it may be present in the water from wells; in the food we eat, which has absorbed fluoride from the soil; and as additives in many different products that we use.

Fluorides are effective in strengthening the enamel's resistance to dental decay. However, to acheive the maximum benefits of fluoride, an ongoing supply of both systematic and topical fluoride must be available throughout life. For over 40 years fluoride has been safely added to the communal water supply in most cities in australia.

Topical fluoride application is an esential part of a comprehensive dental program. Dentine is the hardest substance in our bodies. fluorid helps to maintain its integrity.



Circle the word which	ch can replace	the word in the sente	nce that is underlined.	
			Dentist, Dental Hygieni	st, or
knowledge	answers	support	opinions	
As a Dental Assista	nt, it is important	t to maintain patients' <u>(</u>	confidentiality.	
discretion	secrecy	gossip	privacy	
_			you are aware of the co	orrect
important	vital	optional	helpful	
	As a Dental Assistation front office, therefore knowledge As a Dental Assistation discretion When working as a Personal Protective	As a Dental Assistant, you will proving front office, therefore staff in this role knowledge answers As a Dental Assistant, it is important discretion secrecy When working as a Dental Assistant Personal Protective Equipment PPE	As a Dental Assistant, you will provide <u>assistance</u> to the front office, therefore staff in this role need to be flexible. knowledge answers support As a Dental Assistant, it is important to maintain patients' godiscretion secrecy gossip When working as a Dental Assistant it is <u>essential</u> that Personal Protective Equipment PPE to wear.	knowledge answers support opinions As a Dental Assistant, it is important to maintain patients' confidentiality. discretion secrecy gossip privacy When working as a Dental Assistant it is essential that you are aware of the corpersonal Protective Equipment PPE to wear.

- increased maximised minimised prevented
- 7. If you were a new trainee Dental Assistant how would you handle the following situations?

d. Health and safety hazards can be **reduced** by following your surgery's Workplace Health

a. Mr Patrice Mutua telephoned the surgery and you answered the call.

Mr Mutua said to you "My tooth hurts very much".

and Safety (WHS) policies and procedures.

You ask Mr Mutua for more information about the type of pain, how long it has been painful and its location but you are unable to make yourself understood.

What should you do? Circle the correct answer.

- i. Tell Mr Mutua to ring back later.
- ii. Speak loudly and slowly to Mr Mutua.
- **iii.** Put Mr Mutua on hold after you have obtained his contact details and ask your supervisor for assistance with the call.



b. This is only the second time in his life that 14-year-old Chris has been to the Dentist.

He has been living in a remote part of the world where there were no medical services.

His adopted family took him to the dentist a month ago for an examination. Jan, the Dentist, took x-rays and examined Chris' teeth and mouth. Jan explained very carefully to Chris and his parents the treatment plan that Chris required. He needs seven fillings and the removal of all four severely impacted wisdom teeth before bracing may be considered to straighten his teeth.

Today, Chris is here to have his two upper wisdom teeth removed.

His parents have told both the Dentist and the Dental Assistant that Chris is very frightened and nervous about the procedure. He has not been able to sleep or eat for the last two days.

Jan and her Dental Assistant discuss Chris' treatment before his appointment.

What can the Dental Assistant do to lessen Chris' fear and nervousness when he arrives for his appointment? Circle the correct response/s.

- i. Explain that the Dentist will provide pain relief during and after the procedure.
- ii. Leave him alone in the waiting area for 30 minutes.
- iii. Quietly explain all the steps and if possible show Chris a video or pamphlet.
- iv. Tell him to not be nervous.



8. First Aid

Dental Surgeries are required to have a plan of action in the event of an emergency.

It is important all staff have been trained in the latest First Aid procedures.

It is a good idea to have an emergency response chart in a place where it is assessible in the event of any emergency.

All surgeries should have a Cardio Pulmonary Resuscitation (CPR) chart.

These charts are available from many agencies such as the Ambulance Service in each State or Territory, St John's Ambulance and the Australian Red Cross.

Read the chart below and answer the questions that follow.

CPR ch	
D Check for danger	Check for danger eg electrical cords, petrol or other hazards
R Responsive	Check for responsiveness If no signs of life: > Unconscious > Unresponsive > Not breathing normally
SHOUT FOR HELP!	> Get someone to dial Triple Zero (000) immediately > Ask for AMBULANCE
A Clear airway	> Place person on their back > Tilt head back (not for infants or injured) > Remove foreign matter from mouth (and nose of baby) > Place on side if there is a lot of foreign matter
B Check breathing	> Look, listen and feel for breathing > If normal breathing is present leave or place patient on their side > If normal breathing is absent commence CPR 2 breaths to 30 compressions at 100 compressions/min - Place patient on their back - Tilt head back (not for infants or injured) - Lift jaw and pinch nostrils
C Circulation (at 100 compressions/min)	CHILD & ADULT: > Place hands over the centre of the chest (sternum). > Compress sternum one third the depth of the chest 30 times > Continue with 2 breaths to 30 compressions > Do not interrupt compressions for more than 10 seconds
	INFANT: > Position 2 fingers on lower half of the sternum > Depress sternum approximately one third the depth of the chest > Continue with 2 breaths to 30 compressions
D Defibrillation	If Automated External Defibrillator (AED) is available



a.	In an Emergency what number should you call?
b.	Why is it important that all staff are trained in First Aid?
c.	What are the three elements of responsiveness?
d.	How do you check breathing?
е.	What does CPR stand for?



Workplace Health and Safety







9. Read part of an extract about how to pass instruments to the Dentist and answer the questions that follow.

The Zone Transfer: Every exchange between the Dental Assistant and the Dentist takes place in the transfer zone, which is over the patient's chest, near his or her chin. Instruments are exchanged here so they are not accidentally dropped on the patient's face. Every exchange must be done with minimal motion using movements of elbows, wrists and fingers only.

The One-Hand Exchange: With the one-hand exchange, the Dental Assistant uses four steps to pass an instrument to the Dentist. The first step, the working step, involves the Assistant picking up an instrument by its end with their left hand, using their thumb and first two fingers only. The Assistant holds the instrument parallel to the instrument being used by the Dentist. The second step is a signal given by the Dentist that he/she needs another instrument. The Dentist will give this signal by raising the instrument he/she is already using slightly from the patient's tooth. The pre-transfer step involves the Assistant using their little finger to retrieve the old instrument from the Dentist's hand. The Assistant may prefer to use their last two or three fingers as well in the step. The final step, the midtransfer step, involves the new instrument being placed in the Dentist's hand from the Dental Assistant's hand.

The Hand Piece Exchange: The dental hand piece, or dental drill, is also exchanged between the Dental Assistant and the Dentist in the transfer zone, above the patient's upper chest. If the Dentist communicates that he/she needs a new bur (or drill bit) for the hand piece, the Assistant will loosen and remove the bur and place the new bit in the piece and secure it. This is also done over the transfer zone. But, if the Dentist uses a different instrument between bur exchanges, the Dental Assistant may change the bur outside the zone and over the tray setup. When exchanging two hand pieces, the Dental Assistant must avoid tangling the hoses.



a.	How does a Dental Assistant avoid injuring a patient's face?
b.	What is a bur?
C.	What does the mid-transfer step involve?
d.	Every exchange must be done with minimal movement of what three body parts?



10. Read the following information and answers the questions below.

Tooth development and eruption of permanent (adult) teeth.

Teething usually occurs between the ages of 6 months and 3 years. Children usually replace their baby teeth at around 6 years of age. Back baby teeth are replaced at 10 - 12 years of age. If a child's baby teeth erupted late, the adult teeth will probably erupt late as well.

ooth	Eruption month	Shed year	Eruption sequence
	(approximately)	(approximately)	8-12 months
Lower central incisor	6-10	6-7	9–13 months
Lower lateral incisor	10-16	7-8	16-22 months
Upper central incisor	8-12	6-7	(*) — 13–19 months
Upper lateral incisor	9-13	7-8	- 25-33 months
Lower first molars	14-28	9-11	~ ~
Upper first molars	13-19	9-11	(1) 23-31 months
Lower canines	17-23	9-12	(1) 14-28 months
Upper canines	16-22	10-12	17-23 months
Lower second molars	23-31	10-12	10-16 months
Upper second molars	25-33	10-12	6-10 months

Courtesy of Dental Health Services Victoria https://www.dhsv.org.au

- a. At what age do children usually shed their baby teeth?
- b. When do the upper canines erupt?
- c. What is another name for adult teeth?
- d. How old is a child when they shed their upper lateral incisors?



e.	What are the only primary teeth with the potential to remain in a child of 12 years of age?			
f.	List all types of molar teeth.			

?

Practice Aptitude QUIZ

Section 2 - Mathematics

Calculators may be used

1. Ms Toscano has just had her annual check-up. Included in her check-up were a scale, clean and fluoride. Dr Singh, the Dentist, recommended that as Ms Toscano has not had x-rays for three years she should have two bite wing x-rays taken to check between the teeth for any cavities.

Itemised account items for Ms Toscano

012 Exam

114 Clean

121 Fluoride

2 x 022 x-rays

The full amount of her account is \$335.00.

Ms Toscano uses her ACME Private Health Fund card in the payment processing machine and the ACME Health Fund fee contribution is \$165.30.

How much remains for Ms Toscano to pay?

2. Heidi, the trainee Dental Assistant, has been asked to go to the local store for some supplies.

Heidi is given \$50.00 from the petty cash.

Heidi has been asked to buy the following items.

Calculate the total costs of the items and the amount of change Heidi will receive. Write your answers in the shaded section of the right-hand column below.

5 packets of tissues for the stock cupboard	\$2.35 each
2 x 100 envelopes	\$2.40 each
1 writing pad	\$3.60
1 carton of milk	\$2.70
Calculate the total	
How much change should Heidi receive?	



3. Answer the following arithmetic questions:

a. Write this number in words - 157,802

b. Round 36,993 to the nearest thousand

c. Round 6.724 to the nearest hundredth

d. 324 x 87 =

e. 81.32 x 0.3214 =

f. 4356 ÷ 89 =

g. What is 100 as a percentage of 80?

h. Convert 2/5 to a percentage

i. What is the elapsed time between 5.45 AM and 4.10 PM?

19



4. Alison and Blythe, the two Dental Assistants in the dental practice, have been asked to do a stocktake of retail supplies for patients.

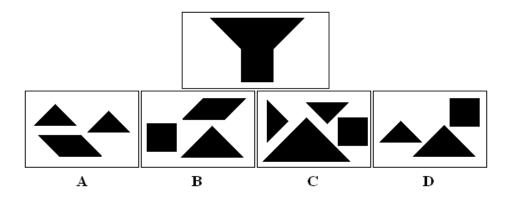
Input the correct numbers and costs into the shaded columns below.

Item	Price each	Total stock required	Total stock remaining	Stock to be ordered	Total price of additional stock
Mouthguards	\$14.30	60	10		
Interdent brushes (per pkt of 10)					
Size 1	\$7.95	75	50		
Size 2	\$7.95	50	30		
Size 3	\$7.95	100	84		
Size 4	\$7.95	50	0		
Size 5	\$7.95	35	23		
Fluoride toothpaste					
Normal	\$9.30	150	112		
Sensitive	\$12.80	100	87		
Teeth Whitening gel syring-					
es (sets of 4 syringes)					
Day					
3% hydrogen peroxide	\$37.95	5	2		
6% hydrogen peroxide	\$37.95	5	1		
7.5% hydrogen peroxide	\$37.95	10	9		
9.5% hydrogen peroxide	\$37.95	15	3		
Night					
10% carbamide peroxide	\$37.95	10	2		
16% carbamide peroxide	\$37.95	25	15		
18% carbamide peroxide	\$37.95	10	3		
22% carbamide peroxide	\$37.95	10	0		
				Total cost of order	



Spatial Reasoning

1. Which group of shapes can be assembled to make the shape shown? Hint: Begin by eliminating as many options as you can on the basis of size. Circle the correct letter.





e. where

Answers

1.

Abscess			
Alloy			
Autoclave			
Ceramic			
Cusp			
Dentine			
Diagnostics			
Enamel			
Injection			
Mandible			
Orthodontic			
Plaque			
Sanitise			
Tartar			
Veneer			

- **a.** interpersonal skills, good communication skills, well organised, interested in health, time management.
 - **b.** clean and scale, composite resin filling, crown preparation, root canal therapy, tooth extraction, surgical procedure.
 - c. Sterilisation equipment.
 - d. Personal Protective Equipment
- **3. a.** iv. All of the above **b.** iii. Both of the above. **c.** ii. False. **d.** iii. Tetanus
- **4. a.** nervous **b.** wait **c.** discussed **d.** decided
 - f. amenities g. conversation h. procedure i. necessary
- **5.** Fluoride is a naturally **occurring** mineral that is found in many forms. **It** may be present in the water from wells; in the food we eat, which has absorbed fluoride from the soil; and as additives in many different products that we use.

Fluorides are effective in strengthening the enamel's resistance to dental decay. However, to **achieve** the maximum benefits of fluoride, an ongoing supply of both systematic and topical fluoride must be available throughout life. For over 40 years fluoride has been safely added to the communal water supply in most cities in **Australia**.

Topical fluoride application is an **essential** part of a comprehensive dental program. Dentine is the hardest substance in our bodies. **Fluoride** helps to maintain its integrity.

- 6. a. support b. privacy c. vital d. minimised
- 7. a. iii. b. i. & iii.
- a. 1111. b. 1. & 111.
- **b.** So that there is a plan of action in the event of an emergency
- c. Unconscious, Unresponsive, Not breathing normally.
- d. Look, listen and feel for breathing
- e. Cardio Pulmonary Resuscitation
- **a.** Every exchange between the Dental Assistant and the Dentist takes place in the transfer zone, which is over the patient's chest, near his or her chin. Instruments are exchanged here so they are not accidentally dropped on the patient's face.
 - b. Drill bit for a dental drill.
 - c. The new instrument being placed in the Dentist's hand from the Dental Assistant's hand.
 - **d.** Elbows, wrists and fingers.



a. Around six years of age. **b.** 16 to 22 months. **c.** Permanent. **d.** 7 to 8 years.

e. Upper second molars, Upper canines, Lower canines, & Lower second molars.

f. Lower first molars, Upper first molars, Lower second molars & Upper second molars.

Section 2 - Mathematics

1 \$169.70

2 Total \$22.85, change \$27.15

a. One hundred and fifty-seven thousand, eight hundred and two b. 37,000 c. 6.72 d. 28 188

e. 26.14 f. 48.94 g. 125% **h.** 40%

i. 10 hours and 25 minutes

4.

Item	Stock to be ordered	Total price of additional stock
Mouthguards	50	\$715.00
Interdent brushes (per pkt of 10)		
Size 1	25	\$198.75
Size 2	20	\$159.00
Size 3	16	\$127.20
Size 4	50	\$397.50
Size 5	12	\$95.40
	Subtotal	\$977.85
Fluoride toothpaste		
Normal Sensitive	38	\$353.40
	13	\$166.40
	Subtotal	\$519.80
Teeth Whitening gel syringes		
(sets of 4 syringes)		
Day		
3% hydrogen peroxide	3	\$113.85
6% hydrogen peroxide	4	\$151.80
7.5% hydrogen peroxide	1	\$37.95
9.5% hydrogen peroxide	12	\$455.40
Night		
10% carbamide peroxide	8	\$303.60
16% carbamide peroxide	10	\$379.50
18% carbamide peroxide	7	\$265.65
22% carbamide peroxide	10	\$379.50
	Subtotal	\$2,087.25
	Total cost of order	\$4,299.90

1. B



This Practice Aptitude Quiz was developed by



Australian Apprenticeships and Traineeship Information Service, which delivers the Australian Apprenticeship Pathways website, MyGain (YouTube channel) and AusAppPathways – Mobile App. The service provides sample Australian Apprenticeships job descriptions and links to more Australian Apprenticeships information and resources. The service is funded by the Australian Government, Department of Education and Training.



The Australian Centre for Career Education - www.ceav.vic.edu.au

The Australian Centre for Career Education is a state based peak association for career practitioners working in a range of educational settings. The ACCE provides membership, training and professional development aligned to the national standards for career practitioners. It also provides careers counselling to the general public and consultancy to industry and governments.

For enquiries about this Practice Aptitude Quiz, contact
The Australian Apprenticeships and Traineeships Information Service on
1800 338 022