



ATAR course examination, 2020

Question/Answer booklet

PSYCHOLOGY

Place one of your candidate identification labels in this box.
Ensure the label is straight and within the lines of this box.

WA student number: In figures

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In words

Time allowed for this paper

Reading time before commencing work: ten minutes
Working time: three hours

Number of additional
answer booklets used
(if applicable):

Materials required/recommended for this paper

To be provided by the supervisor

This Question/Answer booklet

To be provided by the candidate

Standard items: pens (blue/black preferred), pencils (including coloured), sharpener, correction fluid/tape, eraser, ruler, highlighters

Special items: up to three calculators, which do not have the capacity to create or store programmes or text, are permitted in this ATAR course examination

Important note to candidates

No other items may be taken into the examination room. It is **your** responsibility to ensure that you do not have any unauthorised material. If you have any unauthorised material with you, hand it to the supervisor **before** reading any further.



Structure of this paper

Section	Number of questions available	Number of questions to be answered	Suggested working time (minutes)	Marks available	Percentage of examination
Section One Research methods	2	2	30	36	20
Section Two Short answer	7	7	90	95	55
Section Three Extended answer	2	2	60	52	25
Total					100

Instructions to candidates

- The rules for the conduct of the Western Australian external examinations are detailed in the *Year 12 Information Handbook 2020: Part II Examinations*. Sitting this examination implies that you agree to abide by these rules.
- Write your answers in this Question/Answer booklet preferably using a blue/black pen. Do not use erasable or gel pens.
- Answer the questions according to the following instructions.

Sections One and Two: Write your answers in this Question/Answer booklet. Wherever possible, confine your answer to the line spaces provided.

Section Three: Consists of two questions. You must answer both questions.
- You must be careful to confine your answers to the specific questions asked and to follow any instructions that are specific to a particular question.
- Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. If you use these pages to continue an answer, indicate at the original answer where the answer is continued, i.e. give the page number.

See next page

Section One: Research methods**20% (36 Marks)**

This section has **two** questions. Answer **all** questions. Write your answers in the spaces provided.

Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. If you use these pages to continue an answer, indicate at the original answer where the answer is continued, i.e. give the page number.

Suggested working time: 30 minutes.

Question 1**(19 marks)**

- (a) Distinguish between scientific and non-scientific research in the table below. (6 marks)

	Scientific	Non-scientific
Collection of evidence		
Methodology		
Reliability		

Dr Koba conducted an experiment to test the effects of sugar on behaviour. He divided the participants randomly into two groups. One group was given a capsule containing 50 mg of sugar and the second group was given a capsule of water. The participants were then given a series of word problems to complete.

- (b) (i) State the term used to identify the group that was given the capsule of water. (1 mark)

See next page

Question 1 (continued)

Dr Koba, Dr Gwak and Dr Aslan explained their understanding of statistical significance. Each described their understanding differently in the conversation below.

- Dr Koba: It means that my data is probably reliable, and I can draw conclusions from it.
 Dr Gwak: I'm sorry, you're wrong. It gives you an indication that your results are most likely due to something other than chance.
 Dr Aslan: You're both wrong. It's when you calculate statistics, and they are correct.

(ii) Which person **most** correctly understands statistical significance? Circle their name below. (1 mark)

Dr Koba Dr Gwak Dr Aslan

A *p*-value is a statistical term for the role of probability in research.

(iii) Describe how you would explain $p = .05$ (2 marks)

Archival research is popular when looking at how attitudes have changed over time.

(c) (i) Define 'archival research'. (1 mark)

(ii) Outline **one** advantage and **one** disadvantage of archival research over other forms of non-experimental methods. (2 marks)

Advantage: _____

Disadvantage: _____

Quantitative data can be displayed through many different methods; however, some methods are better suited to certain data and situations than others.

- (d) For each of the following scenarios, identify which is the **most** appropriate quantitative display method and justify your choice. (6 marks)

Longitudinal data showing yearly changes in intelligence: _____

A series of medians and modes for a set of data: _____

The proportions of attitudes of 100 surveyed people: _____

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Question 2

(17 marks)

Psychologists working for the Organisational Psychology Unit of the Western Australia Police Force wanted to determine the effectiveness of different penalties deterring Western Australians from using their mobile phones while driving. Sixty Western Australian drivers aged 18–35 were selected to participate in the study and were exposed to conditions for values of \$200, \$500 and \$1000.

- (a) State the sample and the population for the study. (2 marks)

Sample: _____

Population: _____

Following the experiment, a penalty regime was implemented and data about its effectiveness was recorded over time. Researchers found when analysing the results of the entire broader group, the results were different from that of the group used in the original study.

- (b) Outline **two** reasons why the mean score for a sample and its corresponding population may be different. (2 marks)

One: _____

Two: _____

During the study, researchers were careful to protect the participants' right to privacy and confidentiality.

- (c) Define 'privacy' and 'confidentiality' as they relate to psychological research and outline the difference between the two terms. (3 marks)

Privacy: _____

Confidentiality: _____

Difference: _____

- (d) Outline **two** requirements of professional conduct in undertaking and publishing psychological research. (2 marks)

One: _____

Two: _____

- (e) Define the term 'deception' as used in psychological research. (1 mark)

- (f) State **two** requirements for the ethical use of deception in psychological research. (2 marks)

One: _____

Two: _____

Professor Em began a series of experiments into obedience in which participants believed they were administering electric shocks to another participant when they incorrectly answered a memory test, when the person being shocked was actually an actor. This has since been heavily criticised in terms of ethics as participants were regularly told comments like, 'You must continue with the experiment' and 'please continue'.

- (g) Describe how deception was used in Professor Em's experiments. (2 marks)

Question 2 (continued)

When deception is used, it has an inevitable impact on informed consent procedures.

- (h) (i) Applying today's ethical principles, identify the participant right that can also be argued to have been breached in the experiments conducted by Professor Em. (1 mark)

- (ii) Define the right identified in part (h)(i) and outline how it was breached in Professor Em's experiments. (2 marks)

End of Section One

See next page

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Section Two: Short answer**55% (95 Marks)**

This section has **seven** questions. Answer **all** questions. Write your answers in the spaces provided.

Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. If you use these pages to continue an answer, indicate at the original answer where the answer is continued, i.e. give the page number.

Suggested working time: 90 minutes.

Question 3**(8 marks)**

- (a) Define 'heredity'. (1 mark)

- (b) Outline the difference between a hormone and a neurotransmitter. (2 marks)

- (c) In the table below, give **one** specific example of how hormones (such as adrenaline or noradrenaline) can affect our behaviour, emotion and thought. (3 marks)

	Hormonal effect
Behaviour	
Emotion	
Thought	

See next page

Question 3 (continued)

It is commonly believed that adrenaline excites the body during flight and fight while noradrenaline returns the body to homeostasis. This is not accurate. Both play similar roles in the human body.

- (d) Describe the key difference between adrenaline and noradrenaline in terms of the brain's reaction to stress. (2 marks)

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Question 4**(13 marks)**

Conflict resolution is imperative in human society, as we learn to negotiate differences and voice our own opinions. Successful conflict resolution generally requires work from both parties.

- (a) Name and define **three** conflict resolution solution types in the table below. (6 marks)

Type of solution	Definition

Erick and Casey are having trouble with their teenage daughter. They are in conflict with her regularly and are looking at constructive ways of resolving future disputes.

- (b) State and describe the **most** appropriate conflict resolution technique for Erick, Casey and their daughter. (3 marks)

See next page

Question 4 (continued)

Alia has triplets. After reading about Mary Ainsworth’s attachment studies, Alia realises that each of her children displays a different attachment style: Ajax is Type A, Barv is Type B, and Cleg is Type C.

- (c) Complete the table below by stating the name of the differing attachment styles and describe how the Type B and C child may behave when Alia presents them with Ainsworth’s The Strange Situation. (4 marks)

Child	Style name	Behaviour
Ajax (Type A)		<ul style="list-style-type: none"> ignores Alia, fails to look at her, does not seek her comfort/contact
Barv (Type B)	Secure	
Cleg (Type C)		

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Question 5

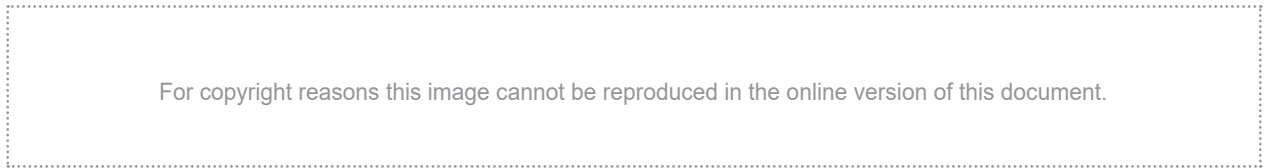
(14 marks)

Mr and Mrs Muals are having a discussion about their weekend plans. Mrs Muals becomes frustrated because Mr Muals doesn't remember what he's been told. Mr Muals is frustrated because he feels Mrs Muals is not being clear.

- (a) (i) Identify which theorist's work could be used to explain the communication issues between Mr and Mrs Muals. (1 mark)

- (ii) According to the theorist named in part (a)(i), identify and explain the reasons why Mr and Mrs Muals are both feeling frustrated by the discussion. (5 marks)

Many pre-schools include 'emergent literacy' programs into their curriculum. *Paths to Literacy* discusses how these programs work with children to form literacy:



- (b) (i) Name the language theorist whose work supports such programs. (1 mark)

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Question 5 (continued)

- (ii) Name and describe the learning system proposed by the theorist given in part (b)(i). (3 marks)

- (iii) Apart from routines, outline **one** way in which pre-school teachers could enhance children's language skills by using the work of the theorist named in part (a)(i). Use an example of an activity that could be used to support your answer. (4 marks)

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Question 6**(14 marks)**

Jarra has recently started to collect rubbish off the lawn without being asked to do so. Her mother claims that it is through operant conditioning that Jarra has learned this behaviour.

- (a) Describe 'operant conditioning'. (2 marks)

- (b) Name **two** ways in which operant conditioning encouraged Jarra to continue with the behaviour. Explain and apply them to Jarra's learned behaviour. (6 marks)

	First way	Second way
Name		
Explanation		
Application to Jarra		

Jarra's mother asked why Jarra had changed her behaviour. Jarra said she had watched the girl across the road collecting rubbish and being given pocket money in return.

- (c) Name the theory or process of learning that Jarra is discussing. (1 mark)

Question 6 (continued)

Farrah is scared of goldfish after an allergic reaction as a child.

(d) Complete the table below by using your knowledge of classical conditioning. (5 marks)

Neutral stimulus	+	Unconditioned stimulus	→	Unconditioned response
		Conditioned stimulus	→	Conditioned response

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Question 7**(21 marks)**

- (a) Identify the key belief underlying the trait theory regarding the origin of an individual's personality. (1 mark)

- (b) Use an example to explain what is meant by the term 'continuum' in McCrae and Costa's approach to personality. (2 marks)

Rogers' believed that three factors were required for a person to grow appropriately.

- (c) Identify and describe each of these **three** factors. (6 marks)

Factor	Description

See next page

Question 7 (continued)

- (d) Define what Rogers meant by the term 'congruence' and state how this influences personality. (2 marks)

- (e) From a humanistic perspective, outline **four** characteristics of a person who has reached self-actualisation. (4 marks)

One: _____

Two: _____

Three: _____

Four: _____

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Jane was a careful and very social person who won three different art competitions and was proud of her accomplishments. While her family was moving to a new home, Jane lost her art paints and her money box. Also, she had not made new friends at the new school. Jane struggled to find her artistic flair and felt deflated. Some days she did not eat because she would forget to pack her lunchbox and eventually she began jumping the school fence to go to the burger shop on her own to buy food. Jane became quiet and very unsocial and her parents found it difficult to understand how her personality seemed to have changed so much.

- (f) (i) Using the above scenario, identify the level of Maslow's Hierarchy of Needs that Jane had met before and after she moved to the new house. (4 marks)

	Level	Scenario example
Before		
After		

- (ii) With reference to the scenario, explain why Jane, who was previously a cautious person, may begin to engage in dangerous activities such as jumping a fence. (2 marks)

Question 8

(15 marks)

Researchers conducted a study into the effects of being told there is another person present when performing two tasks. All participants were blindfolded and allocated to one of two groups; Group A was told there was another person present, while Group B was told there was no person present. Each participant had to conduct two tasks – one easy and one difficult. The higher the score, the better the participant performed.

The mean and standard deviation of each condition are presented in the table below.

MEAN AND STANDARD DEVIATIONS OF PROBLEMS SOLVED PER CONDITION

Task difficulty	Social context			
	Person (Group A)		No person (Group B)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Easy	9.89	3.57	7.89	3.29
Difficult	3.64	2.97	5.33	3.23

- (a) Identify the **two** psychological processes being investigated in this study. (2 marks)

One: _____

Two: _____

- (b) Use the data from the table above to explain why the participants in Group A performed better when they thought a person was present in the easy condition and worse in the difficult condition. (4 marks)

Easy condition: _____

Difficult condition: _____

Question 9

(10 marks)

Riaan and Padima have met at university while studying psychology and come from very different backgrounds. During a lecture, another student faints, falls down stairs and is rushed to hospital. It is a while before the class learns that the student is unharmed. While waiting for this news, Riaan and Padima react very differently to the significant event. Riaan experiences post-traumatic growth (PTG), while Padima exhibits signs of post-traumatic stress disorder (PTSD).

- (a) Define the terms 'post-traumatic growth' and 'post-traumatic stress disorder'. (2 marks)

Post-traumatic growth: _____

Post-traumatic stress disorder: _____

- (b) It could be suggested that Padima lacks resilience. Outline **three** qualities that someone with resilience would demonstrate. (3 marks)

One: _____

Two: _____

Three: _____

- (c) Describe the difference between someone who shows resilience and someone who shows post-traumatic growth after a significant event. (2 marks)

When discussing how they were feeling, Padima said she was surprised that Riaan did not show any outwardly negative reactions, but Riaan explained that he did feel some negative reactions.

- (d) Explain why post-traumatic growth is not always about only positive reactions. (3 marks)

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End of Section Two

See next page

Section Three: Extended answer**25% (52 Marks)**

Section Three consists of **two** questions. You must answer **both** questions.

Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. If you use these pages to continue an answer, indicate at the original answer where the answer is continued, i.e. give the page number.

Suggested working time: 60 minutes.

Write your answer to Question 10 on pages 25–29. When you have answered this question, turn to page 30 for Question 11 and write your answer on the pages that follow.

Question 10**(26 marks)**

The Soaring Bellanita is a famous circus performer who, in a recent rehearsal, fell from the highwire. After the accident, when Bellanita tried to speak, she became frustrated: the words that came out were not fluent, she repeated many words, and speech made no sense. She found it difficult to walk and struggled to stop any movement when asked. Her friends took Bellanita to the hospital, where the doctors ordered a series of tests that included a psychological memory test, a physical examination and brain scans.

The results from the memory tests showed that Bellanita was able to attend to visual stimuli but had difficulty with sound tasks. The psychologist found that she struggled with the process of transferring the information to her long-term memory stores and required lots of repetition with meaning to assist her in this process.

The first brain scan showed damage to the left side of the brain. A more precise scan showed additional damage to an area of the brain that produces a neurotransmitter that is responsible for reward, motivation and movement.

Use your knowledge of the brain, the process of neural transmission and the role of neurotransmitters, and memory, to analyse the scenario and synthesise an explanation for the Soaring Bellanita's symptoms.

In your answer, refer to the above scenario by creating a well-constructed response, addressing the following:

- identify the area of the brain and lobe that caused the speech issues when damaged (2 marks)
- explain why these speech issues may have occurred, using examples from the scenario (3 marks)
- identify and explain each component of Atkinson and Shiffrin's (1968) multi-store model of memory (9 marks)
- explain Bellanita's memory processing issues (2 marks)
- identify the neurotransmitter that has been affected (1 marks)
- describe the process of neural transmission from one neuron to another (5 marks)
- quality of your response. (4 marks)

See next page

Question 11

(26 marks)

When Shauna was five-years-old she witnessed her older sister Lola steal a toy animal from the supermarket. She then gave it to her mother as a gift. Not knowing it was stolen, her mother gave Lola a cookie. As her mother gave her sister praise, Shauna thought if she did what her mother wanted her to do, she too would get a reward. Shauna's mother's favourite animal was a meerkat. When they went to the zoo the day before Shauna's sixth birthday, Shauna took a meerkat from the enclosure and hid it in her backpack. When they got home, she proudly gave it to her mother, who was very upset with her and called the police.

Once the meerkat was returned, the police interviewed Shauna to try to understand why she had committed the crime. Shauna explained that she stole the meerkat because she thought it was the right thing to do as her sister got a cookie as a reward after stealing a toy animal and giving it to her mother. The police explained what she had done was particularly bad because it was a live animal, but Shauna kept arguing that her sister had stolen a toy animal, seeming to believe that the stolen toy could think and feel too. She also told the police that she was not worried about getting caught, as no one could have seen her because her eyes were closed.

Following the incident, Shauna never stole again; however, she also became withdrawn. She became unwilling to try anything new, stating that she would not be any good at it and that she was not good at anything.

In your answer, refer to the above scenario by creating a well-constructed response, addressing the following:

- identify the stage of cognitive and moral development displayed by Shauna in the scenario (2 marks)
- outline and apply Piaget's theory of cognitive development **or** Kohlberg's theory of moral development (5 marks)
- explain how your chosen theory (Piaget or Kohlberg) accounts for an aspect of Shauna's behaviour in the scenario, referring to empirical evidence (5 marks)
- outline Erikson's stage theory of identity **or** Bandura's social learning theory (5 marks)
- explain how your chosen theory (Erikson or Bandura) accounts for an aspect of Shauna's behaviour in the scenario, referring to empirical evidence (5 marks)
- quality of your response. (4 marks)

End of questions

ACKNOWLEDGEMENTS

Question 5(b)

Quote from: Cushman, C. (n.d.). *Helping young children to develop emergent literacy skills*. Retrieved May, 2020, from <https://www.pathstoliteracy.org/helping-young-children-develop-emergent-literacy-skills>

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Published by the School Curriculum and Standards Authority of Western Australia
303 Sevenoaks Street
CANNINGTON WA 6107