Semester One

ATAR course examination, 2021

Question/Answer Booklet

PSYCHOLOGY - UNIT 1

WA Student Number: In figures

In words \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Time allowed for this paper

Number of additional

Answer booklets used

(if applicable)

Reading time before commencing work: ten minutes

Working time: three hours

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.

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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 Multiple-choice | 2 | 2 | 30 | 33 | 20 |
| Section Two Short answer | 7 | 7 | 90 | 99 | 55 |
| Section Three Extended answer | 2 | 2 | 60 | 52 | 25 |
|  |  |  |  | **Total** | 100 |

Instructions to candidates

1. The rules for the conduct of the Western Australian external examinations are detailed in

the *Year 12 Information Handbook 2021: Part II Examinations*. Sitting this examination

implies that you agree to abide by these rules.

1. Write your answers in this Question/Answer booklet preferably using a blue/black pen.

Do not use erasable or gel pens.

1. 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.

1. 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.

1. 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.

**Section One: Research methods 20% (33 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.

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**Question 1 (23 Marks)**

Jeanie conducted a study on students studying before and after their evening shower. She believed students studied better when they were clean. She selected 20 participants aged 14-19 from the local boys’ schools and randomly allocated them into two groups. The groups were given identical material to study and were given an hour with the material each day for one week. Group A were to study between 5-6pm prior to their evening shower, while Group B were to study 7-8pm after their evening shower. At the end of the week, all participants were brought together to the same room and given an identical test out of 100. The mean, mode and range of the results are given below.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Mean** | **Mode** | **Range** |
| **Group A** | 78 | 79 | 46 |
| **Group B** | 81 | 75 | 13 |

1. Give the population and sample for the study. (2 marks)

Population:

Sample:

1. Explain why there may be differences in the population and sample data in this study

(3 marks)

1. Identify the independent and dependent variables within the study. (2 marks)

Independent:

Dependent:

**Question 1** (continued)

1. Identify **three** controlled variables in the study. (3 marks)

One:

Two:

Three:

1. State **two** uncontrolled variables in the study. (2 marks)

One:

Two:

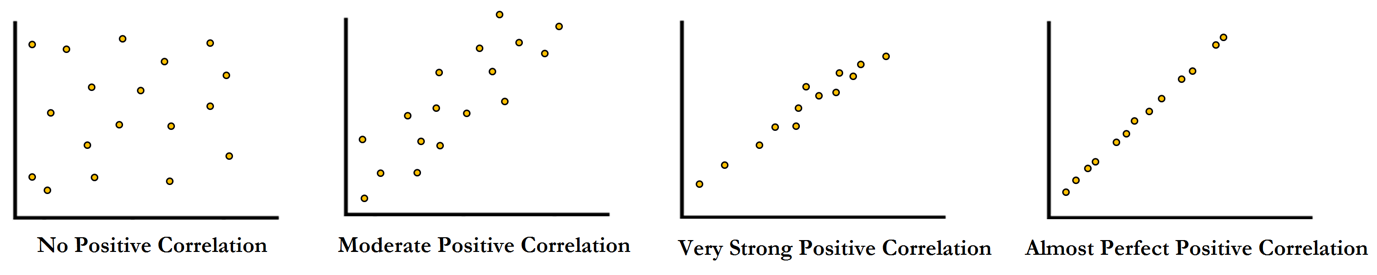
1. Looking at the results, why is it important to take into account the mode and range for this study? Define both mode and range in your response. (6 marks)

1. Explain the calculation used to find the range in a set of scores. (1 mark)

1. Define the term ‘median’ in psychological statistics and explain when it might be used instead of the mean, mode or range. Identify which group would benefit best from the use of median over mean in this study. (4 marks)

**Question 2 (10 marks)**

Fatima conducted a correlational study looking at music beats per minute (BPM) impacting typing speed.



Typing speed

Music BPM

1. What type of research method is being used by Fatima? (1 mark)

1. What is the name for the variable of typing speed in this study? (1 mark)

1. Name the correlation given above. (2 marks)

1. What conclusions can be drawn from Fatima’s study. (2 marks)

1. Fatima chose to change her study slightly and base her study off observations of her friend Bob over a month long period. Name and define the type of study she is now performing. (2 marks)

**Question 2** (continued)

1. She found Bob typed considerably faster while he was listening to fast paced music. What conclusions can Fatima make about typing speed and music BPM from Bob’s results? (2 marks)

**End of Section One**

|  |  |
| --- | --- |
| **Section Two: Short answer** | **55% (99 marks)** |

This section has **six** 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 theoriginal answer where the answer is continued, i.e. give the page number.

Suggested working time: 90 minutes.

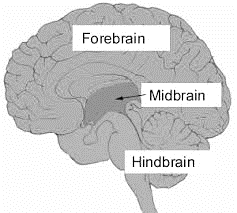
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**Question 3 (17 marks)**

Alejandro is completing a maths test. During this time, tests are conducted using an EEG to investigate functions of his corpus callosum.

1. Define the term corpus callosum. (2 marks)

1. Complete the table below about the functions of the major parts of his brain during this time. (9 marks)



**A**

**B**

**C**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Part Name** | **Part Function** | **Application to Alejandro** |
| **A** |  |  |  |
| **B** |  |  |  |
| **C** |  |  |  |

**Question 3** (continued)

1. State the full name for an EEG. (1 mark)

1. Explain what an EEG is used to measure. (3 marks)

1. State and explain what results we would expect from an EEG of Alejandro during a maths test. (2 marks)

**Question 4 (14 marks)**

Physical activity can affect us in many ways. Drugs also create a number of responses within the body, both psychological and physiological.

1. Explain how physical activity can impact our behaviour, emotion and thought. (6 marks)

Behaviour:

Emotion:

Thought:

1. Define what is meant by physiological responses when it comes to recreational drugs. (1 mark)

1. There are three classes of drugs; give the class of drug for each of the following. (3 marks)

Cannabis:

Alcohol:

Amphetamine:

1. Give **one** psychological response that is common to all three of the drugs mentioned above. (1 mark)

**Question 4** (continued)

1. State a physiological response to each of the drugs below. (3 marks)

Cannabis:

Alcohol:

Amphetamine:

**Question 5 (20 marks)**

Intelligence can be defined in many ways. The most popular definition developed by a theorist is that intelligence is the global capacity to act purposefully, think rationally and deal effectively with the environment.

1. Name the theorist who devised this definition. (1 mark)

1. Create a definition that could have been devised by Spearman based on his theory of intelligence. (3 marks)

1. An early theory of intelligence believed that intelligence was inherited and could be

measured in simple tests similar to height and weight. Name this theorist. (1 mark)

1. Define the concept of “general intelligence” described by a number of early intelligence theorists. (2 marks)

1. Explain Binet and Simon’s work on measuring mental age. (4 marks)

1. State Terman’s contribution to measuring mental age and intelligence quotient. (1 mark)

**Question 5** (continued)

1. Araf is 13 years old, but has a mental age of 19. Calculate his IQ and state what this

IQ score suggests about Araf according to Terman. (2 marks)

1. Bennet is also 13 but has a mental age of 9. What is Bennet’s IQ and what deductions

can be made about her intellect based on Binet and Simon’s work? (2 marks)

1. Explain why intelligence tests devised by Binet and Simon and Terman are no longer commonly used. (3 marks)

1. Name the theorist whose work on empirical intelligence testing is most commonly used today. (1 mark)

**Question 6 (20 marks)**

1. Explain the difference between sensation and perception, defining both terms. (4 marks)

Jiang is 8 years old when her parents first take her to the circus.

1. Complete the table about the sensations Jiang may experience at the circus. (8 marks)

|  |  |
| --- | --- |
| **Sense Organ** | **Stimuli** |
|  |  |
|  | Hearing the crowd |
|  |  |
|  | Tasting the fairy floss |
|  |  |

Harper is writing a school paper while listening to the news on the television.

1. Name and define Harper’s attention during this activity. (2 marks)

1. Describe how Harper could change her attention and what this new state of attention is called. (2 marks)

**Question 6** (continued)

1. Bhatt is accustomed to the noise of the music playing on his phone and doesn’t really

notice it, but gets a bit of a shock and jumps when the phone starts ringing. Explain,

using **two** key psychological terms, what has happened while Bhatt has been with his

phone. (4 marks)

**Question 7 (11 marks)**

1. Geraldine and Gertruda have been friends since primary school. They hunt fairies and read fairy books which Geraldine brings from home, while Gertruda brings snacks. Define and apply the **two** given determinants of liking that impact friendships like Geraldine and Gertruda. (4 marks)

|  |  |  |
| --- | --- | --- |
| **Determinant of Liking** | **Definition** | **Application/Example** |
| **Similarity** |  |  |
| **Reciprocity** |  |  |

1. Proximity is the third determinant of liking and there are three factors of proximity that are studied when it comes to relationship formation. Name and explain these **three** factors. (6 marks)

One:

Two:

Three:

1. Name the theorist who used participant observation to study adolescents. (1 mark)

**Question 8 (17 marks)**

Communication is the passing of a message from one person to another.

1. Name and explain **three** forms of non-verbal communication. (9 marks)

One:

Two:

Three:

1. Name the distance zones the following people would likely be in.
   1. Theo buying rope from the clerk at Bunnings. (1 mark)

* 1. Haddy and Jemima who play football and go to school together. (1 mark)

* 1. Noni and Pernima waiting for the train who’ve not met yet. (1 mark)

1. Jacinta has an interview and really wants to make a good impression. Give her **five** hints on how to demonstrate she is using active listening for the interview. (5 marks)

**End of Section Two**

|  |  |
| --- | --- |
| **Section Three: Extended answer** | **25% (56 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.

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Write your answer to Question 9 on pages 19-23. When you have answered this question, turn

to page 24 for Question 11 and write your answer on the pages that follow.

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**Question 9 (28 marks)**

Harold signed up to a psychological study on states of consciousness. He volunteered to keep a journal of his feelings but was informed they would be using other responses that indicate different states of consciousness. They also asked him to complete an intelligence test so they could use this information to analyze his results in the consciousness study.

Explain the different responses indicating different states of consciousness and compare group and individual intelligence testing, stating which is more appropriate for Harold’s scenario.

In your answer you should:

* Define states of consciousness (1 mark)
* Explain why Harold’s diary was not useful to the researcher (3 marks)
* Name and describe **three** responses the psychologist may use to measure

Harold’s consciousness (9 marks)

* Explain why these measures are used to indicate consciousness rather than

the subject’s records (2 marks)

* Determine whether individual or group testing is better for Harold (1 mark)
* Explain the difference between group and individual testing, describing the pros

and cons for each and giving reason for your answer above (9 marks)

* Quality of your response (3 marks)

Question number:

Question number:

Question number:

Question number:

Question number:

**Question 10 (28 marks)**

Ghirhart is a left-handed artist. She is interested in how images in her mind become creations on the page and was studying the way in which messages pass from her brain to her body in order to create her artworks. Ghirhart hired a team to conduct investigations into her brain function to create scientific artworks of her creating her art.

Explain the functions of the brain hemispheres in Ghirhart’s work. Using your understanding of a neuron, explain how her art goes from her brain to the page. Explain the two scanning techniques that Ghirhart’s team could use to create dynamic pictures of Ghirhart’s brain at work and state why these are the two scanning techniques most appropriate to this task.

In your answer you should;

* Explain the functions of the left and right hemisphere (4 marks)
* Relate each hemisphere to Ghirhart (2 marks)
* Describe the structure of a neuron and how messages are passed through the body

(10 marks)

* Name and explain **two** scanning techniques (6 marks)
* State why dynamic scanning techniques are most appropriate (3 marks)
* Quality of your response (3 marks)

Question number:

Question number:

Question number:

Question number:

Question number:

Supplementary page

Question number:

Supplementary page

Question number: