Semester One

ATAR course examination, 2024

Question/Answer booklet

PSYCHOLOGY - UNIT 3 AND 4

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 exam |
| Section One  Short answer | 6 | 6 | 120 | 121 | 70 |
| Section Two:  Extended Answer  Part A  Part B | 1 | 1 | 60 | 20 | 10 |
| 2 | 1 | 29 | 20 |
|  |  |  | **Total** | 170 | 100 |

Instructions to candidates

1. The rules for the conduct of the Western Australian external examinations are detailed in the *Year 12 Information Handbook: Part II Examinations*. Sitting this examination implies that you agree to abide by these rules.
2. Answer the questions according to the following instructions.

Sections One: Write your answers in this Question/Answer booklet preferably using a blue/black pen. Do not use erasable or gel pens. Wherever possible, confine your answers to the line spaces provided.

Section Two: Consists of two parts. Part A with one question, part B with two questions. You must answer one question from each part.

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.
2. 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: Short Answer 70% (121 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 the original answer where the answer is continued, i.e. give the page number.

Suggested working time: 120 minutes.

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**Question 1 (17 marks)**

1. **Order** the three processes of sensation. (1 mark)

|  |  |
| --- | --- |
| **Process** | **Order** |
| Reception |  |
| Transmission |  |
| Trandsduction |  |

1. Contrast sensation and perception. (2 marks)

**Question 1 (continued)**

Deregowski et al (1972) investigated how culture impacts our interpretation of pictures. People living in cultures (remote African tribes) where photographs or pictures were uncommon, were often unable to perceive 3D elements within 2D photographs.

*Diagram 1 Picture*

A drawing of a person holding a spear

Description automatically generated

1. Explain the process of transduction in relation to the participants viewing Diagram 1.

(2 marks)

1. Identify and explain the process of perception the study attempts to investigate. (3 marks)

1. Propose a non-directional hypothesis for the above study. (3 marks)

1. Propose a qualitative data collection method that could be used for the above study.

(2 marks)

1. Identify and outline two roles of an ethics committee in relation to this study. (4 marks)

**Question 2 (18 marks)**

Last week Greer played mini-golf while singing a Taylor Swift song. She was quite competent at completing these two tasks simultaneously. The following day she sang the same Taylor Swift song while listening to her teacher explain an economics concept. Greer no longer completed either of these tasks well.

1. Outline the role of the cerebellum and the hippocampus in memory formation and apply to Greer. (6 marks)

|  |  |  |
| --- | --- | --- |
| **Brain Structure** | **Role in memory formation** | **Application to Greer** |
| **Cerebellum** |  |  |
| **Hippocampus** |  |  |

1. Name the theorist(s) and year associated with the ‘working memory model’. (1 mark)

1. Explain **two** roles the central executive would play in the above scenario. (4 marks)

1. With reference to the working memory model and the above scenario, explain why Greer was able to play mini golf whilst singing a Taylor Swift song, but not able to listen to her teacher explain an economics concept. (5 marks)

1. Evaluate the working memory model. (2 marks)

**Question 3 (19 marks)**

1. Contrast cued recall and recognition. (2 marks)

Last week Rodney was revising Biology while listening to Katy Perry. During his exam he completely forgot the information but was able recall it later in the day while driving in his car listening to Katy Perry.

1. Name and describe the type of forgetting experienced by Rodney. (2 marks)

Current research suggests there is a positive correlation between the number of repetitive head injuries and the incidence of Chronic Traumatic Encephalopathy (CTE). Research into CTE has occurred by undertaking autopsy studies on brains combined with semi-structured interviews of close family members of the deceased.

1. Identify the type of data collected through semi-structured interviews. (1 mark)

1. With reference to the data, select whether the data collected is subjective or objective. Circle the correct response. (1 mark)

Subjective Objective

1. Justify your response to part (d). (2 marks)

1. **Describe** correlational research and provide **one** strength and **one** limitation of this type of research design. (3 marks)

Description:

Strength 1:

Limitation 1:

1. Provide a Pearson’s coefficient that would illustrate a strong positive correlation. (1 mark)

**Question 3** (continued)

1. Outline how confidentiality could be maintained in this study. (2 marks)

1. CTE and Alzheimer’s Disease (AD) are associated with memory loss and also a number of other emotional and behavioural outcomes. Complete the table to identify the **cause** of the memory loss and **one** behavioural and **one** emotional impact for CT and AD.

(5 marks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of memory loss** | **Cause of memory loss** | **Behavioural** | **Emotional** |
| **CTE** | trauma |  |  |
| **Alzheimer’s disease** |  |  |  |

**Question 4 (21 marks)**

Kiera recently started a new job where she observed her colleague, Francis, successfully managed a challenging client by staying calm and using assertive communication skills. The client was pleased with the outcomes provided by Francis and provided a positive review of her to her boss. In appreciation for her efforts, Francis’s boss rewarded her with a bouquet of flowers and a massage voucher.

The following week Kiera also encountered a difficult client where she mirrored Francis’s calm yet assertive communication skills. While she did not receive a positive review from the client her colleagues and boss noticed her efforts and praised her.

1. Name the theorist associated with social learning theory. (1 mark)

1. Explain why Francis is an effective model in this scenario and how this relates to the findings in Bandura, Ross and Ross (1961) research. (4 marks)

**Question 4** (continued)

1. Explain how Kiera’s workplace could use token economies to improve workplace sales.

(6 marks)

1. Explain **two** limitations of token economies as a strategy to modify behaviour. (4 marks)

**Question 5 (25 marks)**

1. Identify the type of motivation in each of the following examples. (2 marks)

|  |  |
| --- | --- |
| **Example** | **Type of motivation** |
| Sina feels extremely satisfied and pleased with herself after accomplishing a backflip in her acrobatics class. |  |
| Sina receives $50 from her parents for each ‘A’ she achieves on her end of year report card. |  |

1. Define amotivation and provide an example of this in the workplace. (2 marks)

1. Identify and describe the three innate needs of Ryan and Deci (1985) self-determination theory. (6 marks)

|  |  |
| --- | --- |
| **Innate need** | **Description** |
|  |  |
|  |  |
|  |  |

1. Complete the table to identify each of the six factors in Ryff (1989) model of well-being and characteristics of a person low in these factors. (5 marks)

|  |  |
| --- | --- |
| **Factor** | **Low** |
| Autonomy | Rely on judgements of others to make important decisions; conform to social pressures |
|  | Dissatisfied and disappointed with oneself (1) |
| Personal growth |  |
|  | Lack a sense of meaning in life; few aims and goals and lack direction |
| Positive relations with others |  |
|  | Difficulty managing everyday tasks |

**Question 5** (continued)

Tania works for ScoobiSnacks and wants to investigate level of well-being among staff. Rather than surveying the entire staff she randomly selected five people from each department to complete a survey. The survey was voluntary.

1. Define population and identify the population of the study conducted by Tania. (2 marks)

1. Identify the type of sampling technique utilised by Tania and a strength of this method.

(3 marks)

Unbeknown to Tania, 20 minutes prior the distribution of the survey staff were informed about the implementation of a 15% end of year bonus. As a consequence, Tania became concerned about the reliability of her results.

1. Explain why Tania is concerned about the reliability of her results. (2 marks)

1. Explain **one** method Tania could use to test the reliability of the results. (3 marks)

**Question 6 (21 marks)**

Felix, a German backpacker, is currently living in Perth. While he enjoys many aspects of the lifestyle, he finds the public transport system frustrating. In particular, his bus is always late which he is unaccustomed to coming from Germany. Germans pride themselves on punctuality and efficiency. As a consequence, he is arriving late to his bar job in the city which is further frustrating him.

1. Identify and define the type of stressor in the above scenario. (2 marks)

|  |  |
| --- | --- |
| **Type of Stressor** |  |
| **Definition** |  |

1. Identify and outline how one characteristic of the above stressor that may increase its significance for Felix. (2 marks)

1. Describe the type of physiological response Felix will have to his stressor. (1 mark)

1. Describe how the Social Readjustment Scale (Holmes and Rahe, 1967) could be used to assess the impact of stressors on Felix’s health and well-being. (3 marks)

**Question 6** (continued)

1. Compare and contrast eustress and distress. (3 marks)

1. Complete the table below by identifying the three stages of Selye’s General Adaption Syndrome (GAS). Provide a description of each stage. (8 marks)

*Diagram 2 Stages of Selye’s General Adaption Syndrome*

A diagram of a diagram showing a curve

Description automatically generated with medium confidence

A

B

C

|  |  |  |
| --- | --- | --- |
|  | **Stage** | **Description** |
| **A** | **Alarm** |  |
| **B** |  |  |
| **C** |  |  |

1. Name the two substages in the alarm stage. (2 marks)

**Section Two: Extended answer 30% (49 Marks)**

This section has **two** parts.

**Part A:** This part has **one** compulsory question. Write your answer in the space provided.

**Part B:** Answer **one** question from a choice of **two**. Write your answer in the space provided.

Supplementary pages for planning/continuing your answers to the 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.

Recommended working time for this section is 60 minutes.

**Part A**

This part has **one** compulsory question. Write your answer to Part A on pages 18 to 21. When you have answered this question turn to pages 22 to 23 to select either Question 8 or Question 9.

**Question 7 (20 marks)**

Sao and Joey are both studying medicine at university. Sao is an only child in a middle-class family who still lives at home. While studying, Sao is financially supported by her parents who cover all her living costs. Her parents work in successful careers that recently require extensive travel. Joey, on the other hand is required to work part-time to support himself during his studies and lives in a shared house with other medical students.

Sao tends not to be included in group activities and social events which has led her to feel isolated and depressed while Joey feels a sense of camaraderie with his peers.

Write an extended response that must include the following:

* Define a stressor and provide one example each of an environmental stressor and a social stressor from the scenario. (3 marks)
* Name and outline the model of Lazarus and Folkman. (3 marks)
* Describe the **two** major stages of the model and how they relate to Sao and Joey

(10 marks)

* Explain the relationship between deficiency needs and growth needs in Maslow’s hierarchy of needs. (2 marks)
* According to Maslow’s hierarchy of needs, identify the category that has not been fulfilled for Sao and explain the impact on her personal growth. (2 marks)

**Part B 20% (29 Marks)**

Answer **one** question from a choice of **two**.

Indicate the question you will answer by ticking the box next to the question. Write your answer on the pages provided following Question 9.

**Question 8 (29 marks)**

During his twenties, Jaspa had a reputation as a social beer drinker; however, during his forties his wife and close friends became concerned about his excessive drinking habits particularly in relation to beer drinking. Jaspa attended a series of medical appointments where he was diagnosed with an alcohol use disorder. He is now seeking treatment which involves attending weekly psychologist sessions and taking Naltrexone daily.

Naltrexone is considered an effective treatment for severe alcohol use disorder due to its severe physical symptoms (stomach cramps and vomiting) when alcohol is consumed after taking the drug. After three months Jaspa no longer drinks alcohol but is also no-longer able to consume non-alcoholic carbonated drinks.

Jaspa’s doctor studied the efficacy of Naltrexone by randomly allocating 10 clients to the experimental group (taking Naltrexone) and 10 clients to a control group. The control group took a placebo. The doctor was aware of the participants in each group.

The psychologist has identified that Jaspa has been using alcohol to manage their social anxiety. In conjunction with Naltrexone, the psychologist is also implementing a systematic desensitisation program.

Write an extended answer that demonstrates Science inquiry and Psychological understanding in relation to the scenario above.

In your answer you must:

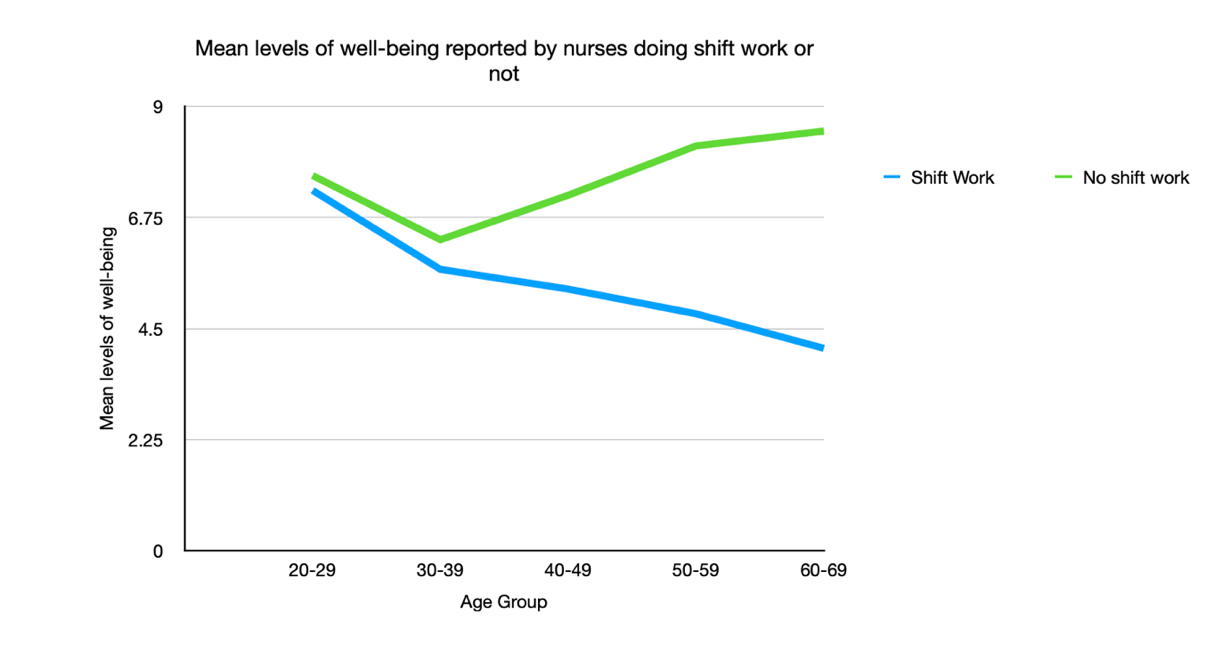
* Name and describe the disorder associated with alcohol misuse by referring to impacts on emotion and behaviour. (3 marks)
* Explain the theory of learning that applies to the use of Naltrexone. In your response identify the antecedent, behaviour and consequence. (6 marks)
* Explain why Jaspa now experiences negative side effects from carbonated drinks. (3 marks)
* Describe the rationale for the use of systematic desensitisation. (3 marks)
* Provide an example of how the psychologist could practically implement a systematic desensitisation process for a social phobia. (4 marks)
* Explain the type of research design utilised by the doctor. (4 marks)
* Define the term ‘extraneous variable’. Explain the importance of controlling extraneous variables and provide an example of one. (3 marks)
* Communicates psychological understandings with correct use of psychological language.

(3 marks)

**Question 9 (29 marks)**

A cross-sectional research design was used to investigate the relationship between shift work and a variety of psychological and physiological effects (levels of well-being). A fixed response survey was distributed to all nursing staff at a local metropolitan hospital. Two hundred and fifty-six nurses aged between 22 and 67 responded to the survey. Of these, 51 did no shift work.

*Graph 1 Mean levels of well-being reported by nurse doing shift work versus those not doing shift work*



In conjunction with the study, Sai, a 34-year-old nurse, experiencing chronic sleep deprivation, completed a series of physiological measurements and interviews with the research team.

Write an extended answer that demonstrates Science inquiry and Psychological understanding in relation to the scenario above.

In your answer you must:

* Describe an average adults sleep cycle not impacted by sleep deprivation. (8 marks)
* Describe shift work and provide examples of two occupations that may require shift work.

(2 marks)

* Describe the impact of shift work on sleep-wake cycle. (2 marks)
* Define partial sleep deprivation and chronic sleep deprivation. Provide a psychological and physiological effects of each type of sleep deprivation. (6 marks)
* Identify and describe the type of research design in which Sai was involved. Compare this research design with a cross-sectional research design. (3 marks)
* Outline how voluntary participation would be addressed in this study. (2 marks)
* Propose a conclusion for this study. (3 marks)
* Communicates psychological understandings with correct use of psychological language.

(3 marks)

Supplementary page

Question number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Supplementary page

Question number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ACKNOWLEDGEMENTS**

**Question 1** Diagram from: McLeod, S. (2023, 16 June). Perceptual Set in Psychology: Definitions and Examples. *Simply Psychology*. Retrieved May, 2023 from <https://www.simplypsychology.org/perceptual-set.html>

**Question 5d** Answer adapted from: David. Carol Ryff’s Model of Psychological Well-Being. *Living Meanings*. Retrieved May, 2023 from <https://livingmeanings.com/six-criteria-well-ryffs-multidimensional-model/>

**Question 6** Diagram from: Legg, T. (2018, October 6). What is General Adaptation Syndrome? *Healthline*. Retrieved May, 2023 from <https://www.healthline.com/health/general-adaptation-syndrome#model>