**PSYCHOLOGY**

**Year 11**

**MARKING GUIDE 2019**

Section One: Research Methods 20% (26 marks)

This section has three (3) questions. Answer all questions. Write your answers in the spaces provided.

Question 1 Total 6 marks

a) Explain the difference between the following terms:

(6 marks)

1. Non experimental and Experimental

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Non experimental is descriptive research through observations  Experimental: variables are manipulated in research | 1  1 |
| **Total** | **2** |

1. Sample and Population

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Sample is a small group of people studied which is a subset of a larger group  Population is a particular group of people | 1  1 |
| **Total** | **2** |

1. Reliability and Validity

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Reliability is the same results are obtained when retested  Validity is the test measures what it is supposed to measure | 1  1 |
| **Total** | **2** |

Question 2 Total 9 marks

A Graduate researcher was interested in ways they could improve high school students stress levels during the school year. She measured the student’s stress levels by measuring cortisol levels in the saliva. She split the Senior school cohort into three groups. One group was controlled and continued schooling as normal. Group two was able to have one free period a day and group three was given meditation practice after lunch. The students stress levels were measured before the study started and again after 10 weeks of the program.

a) Name the independent variable, the dependent variable and **one (1)** controlled variable in this research study.

(3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Independent variable: Free period a day vs meditation after lunch vs control  Dependent variable: cortisol levels in saliva  Controlled variable: Senior school students, 10 week program/ saliva test | 1  1  1 |
| **Total** | **3** |

b) Write an operational hypothesis for the above experiment.

(3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| The Senior school students (1) who had one free period a day (1) would have reduced cortisol levels as measured through saliva (1) than those Senior school students who took meditation after lunch.  NB Students may say meditation will have reduced levels | 0-3 |
| **Total** | **3** |

c) Identify and explain **one (1)** ethical consideration that must be followed in the above experiment.

(2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any one of the following:  Informed Consent- participants are made aware of what the experiment involves and agrees in writing to participate  Confidentiality- information is protected and no personal information is identified on the results  Voluntary participation-participants must be willing to partake in the experiment  Withdrawal rights- participant is able to leave the experiment at any time without consequences  1 mark for stating the ethic and 1 mark for explanation | 0-2 |
| **Total** | **2** |

d) Identify the method of data collection used in the study. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Quantitative | 0-1 |
| **Total** | **1** |

**Question 3 Total 10 marks**

|  |  |
| --- | --- |
| Type of Physical Activity | Heart Rate (BPM) |
| Walking | 75 |
| Running | 93 |
| Cycling | 93 |
| Swimming | 82 |
| Boxing | 105 |

**Figure 1: Heart rate after 3 minutes of different types of physical activity**

a) Draw a graph using the results above.

(6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| * Correct graphing from table (bar graph) * Title * X axis labelled correctly * Vertical axis labelled correctly * Y axis appropriate scale * Spacing between bars | 0-6 |
| **Total** | **6** |

b) Calculate the following for the heart rate results. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Mean: 90 | 0-1 |
| Median: 93 | 0-1 |
| Range: 75-105 (30) | 0-1 |
| Mode: 93 | 0-1 |
| **Total** | **4** |

**End of Section One**

**Section Two: Short Answer 55% (60 Marks)**

**Question 4 Total 14 marks**

a) Explain the case study of Phineas Gage. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Railway worker who had a rod go through his left cheek and top of skull (1) recovered from incident however people noticed changes to personality (1) and was disorganized (1) from the accident the parts of the brain that control personality and planning was found (1) | 0-4 |
| **Total** | **4** |

b) Complete the table below: (6 marks)

|  |  |
| --- | --- |
|  | **Effect on Body** |
| Forebrain | **Plays a major role in how we think, feel and behave** |
| Alcohol | **Reduces inhibitions and self-consciousness, aggression, reduction in clarity of thought,** |
| Cannabis | **Reduces inhibitions, spontaneous laughter altered perception** |
| Parietal Lobe | **Sensory information relating to touch, temperature, position in space and muscle movement** |
| Hindbrain | **Controls vital activities over which we have no conscious control, coordinates voluntary muscle movement and reflexes** |
| Amphetamine | **Raises mood and increases energy** |

(Fletcher and Garton 2017)

c) In the table below, name the structures of the neuron in the diagram: (4 marks)

|  |  |
| --- | --- |
| Structure | Name |
| 1 | Dendrite |
| 3 | Cell body |
| 4 | Myelin Sheath |
| 6 | Axon |

**Question 5 Total 6 marks**

Fill in the following table on Robinson’s social skills and how they differ in cultures.

|  |  |  |
| --- | --- | --- |
| **Social Skill** | **Culture 1** | **Culture 2** |
| Shaking Hands | In Western cultures shaking hands is respectful and friendly greeting | In Eastern cultures shaking hand with left hand is rude and women do not shake hands with men |
| Terms of Address | Australians are usually quick to use informal names (first names or nicknames) | French use ‘Vous’ when addressing formally and ‘Tu’ when addressing friends |
| Politeness | Eastern cultures commonly use requests “do you mind’ | Western Cultures tend to be more direct “I want you to” |

NB These are guides there are multiple answers that could be used here.

Question 6 Total 9 marks

Indi moved interstate and she was really worried about making new friends. Her mum told her not to be worried, her new neighbourhood had lots of kids her age that would all be going to the same school. She also enrolled Indi into the local dance class. Her mum reminded Indi to always be nice to the people around her and she would make friends easily.

1. Identify and explain the determinants of liking in the above scenario. (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Similarity (1)- Indi enrolling in dance class similar interests (1)  Proximity (1) – kids in her neighborhood going to same school and kids in dance class- close proximity for regular meetings (1)  Reciprocity (1)- her mum saying always be nice to people then people will be nice in return (1) | 0-6 |
| **Total** | **6** |

b) Name **two (2)** prosocial behaviours. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| * Altruism * Empathy | 0-2 |
| **Total** | **2** |

c) Explain **one (1)** of the prosocial behaviours you mentioned in part b). (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| * Altruism: being motivated by the desire to help others over oneself for example donating to charity   OR   * Empathy: an emotional response to others feelings, acts of kindness for example helping a person if they have fallen over   (Fletcher and Garton 2015) | 0-1 |
| **Total** | **1** |

Question 7 Total 8 marks

a) Define the following types of attention and include an example in your answer.

1. Selective attention (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| * Paying attention to some events while ignoring others * Studying, writing an exam | 0-2 |
| **Total** | **2** |

1. Habituation (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| * Learning not to respond to events that occur repeatedly * Air con buzzing, cars driving past | 0-2 |
| **Total** | **2** |

1. Divided attention (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| * Attending to and undertaking two different activities at the same time * Talking and driving a car, | 0-2 |
| **Total** | **2** |

b) Identify and explain **one (1)** type of illusion. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Answer depends on illusions you have taught, :  Muller Lyer (1) two lines of equal length with inward or outward points appear to be different lengths | 0-2 |
| **Total** | **2** |

Question 8 Total 15 marks

a)

1. Name the theorist who introduced Multiple intelligences. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Gardner | 0-1 |
| **Total** | **1** |

1. Define the term emotional intelligence. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Ability to monitor one’s own and other’s feelings and emotions (Fletcher and Garton 2017) | 0-1 |
| **Total** | **1** |

1. Define the term mental age. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| The chronological age that best corresponds to a level of intelligence | 0-1 |
| **Total** | **1** |

1. Name the theorist/s who discovered mental age. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Binet and Simon | 0-1 |
| **Total** | **1** |

b) Xavier was transferring school after having some trouble with his old class. He was very excited to move into his new school in Year 6. Before he started he met with the Principal, so she could find out more about Xavier. The principal discovered that Xavier had a good understanding of his own abilities and could express himself very well verbally, however, she understood that Xavier had trouble making friends at his other school and picked up that he didn’t understand how to relate to others. Xavier also expressed his love for sports but was not very coordinated.

1. Name the theorist who introduced Multiple intelligences. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Gardner | 0-1 |
| **Total** | **1** |

1. Identify and explain **two (2)** of the multiple intelligences that Xavier has strengths in. (4 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Intrapersonal (1) he has the capacity to understand himself and his abilities (1)  Linguistic (1) he can express himself well will spoken language (1) | 0-4 |
| **Total** | **4** |

1. Identify and explain **one (1)** of the multiple intelligences that Xavier has a weakness in.

(2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Bodily/kinesthetic (1) he does not have good coordination (1) | 0-2 |
| **Total** | **2** |

c) Fill in the table below. (4 marks)

|  |  |  |
| --- | --- | --- |
| **Intelligence Testing** | **Uses** | **Disadvantage** |
| **Group Testing** | **Clinical purposes and major decisions** | **Can increase anxiety/ doesn’t give detailed information** |
| **Individual Testing** | **To determine strength and weaknesses or intelligence to a specialised service** | **Costly/timely** |

Question 9 Total 8 marks

Connie had surgery and was taking some time to come out of the anaesthetic. When she woke up the doctors wanted to see what state of consciousness she was in before they ran some tests.

1. Explain **two (2)** tests the doctors could run and how these would show her level of consciousness.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any two of the following:  Galvanic Skin Response: measures the conductivity of the skin, Perspiration increases the conductivity of the skin, perspiration increases through anxiety  Heart Rate: an increased heart rate indicates a waking or alert state of consciousness  Body Temperature: a higher body temperature indicates waking consciousness, fever can also affect body temperature and indicate an altered state of consciousness.  Electronic activity of the brain: EEG is used to measure brain activity in waves. More frequent waves indicates higher alertness. | 0-4 |
| **Total** | **4** |

b) Identify **two (2)** stimuli the doctor could use to check **two (2)** different sense organs.

(4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any two of the following 1 mark for organ 1 mark for stimuli   * Eyes- electromagnetic radiation/light * Ear- sound waves * Nose- chemicals * Tongue- chemicals * Skin- thermal energy/heat/pressure | 0-4 |
| **Total** | **4** |

**End of Section Two**

Section Three: Extended Answer 25% (42 Marks)

This section contains two (2) questions. You must answer both questions.

Question 10 21 marks

Eddie was in an accident at his football match. His head collided with another player’s shoulder. Eddie was taken to the hospital to where the doctors performed some tests. They found some swelling in Eddie’s Frontal and Temporal lobes that could result in some symptoms, although fortunately these will be temporary. The doctor also discussed with Eddie the importance of continuing some light physical activity while he was not playing football.

* Identify and explain **two (2)** still pictures the doctor could use to examine Eddie’s brain.
* Explain the functions of the frontal and temporal lobes.
* Explain using empirical evidence the importance of continuing with physical activity.

|  |  |
| --- | --- |
| **Question 10 Guide to Marking Extended Responses** | **Marks** |
| **Definitions** | **2** |
| Correct definitions, with psychological theory discussed in relation to the topic | 2 |
| Correct definitions, but with some inaccuracy. | 1 |
| No definitions. | 0 |
| **Frontal Lobe and temporal Lobe** | **4** |
| Frontal lobe: controls voluntary movement, abstract thinking, regulation of emotional behaviour and personality | 0-2 |
| Temporal Lobe: receives and processes auditory information both verbal and nonverbal | 0-2 |
| **Psychological evidence- Phsyical activity** | **5** |
| Detailed description of one or more examples of relevant psychological research (summary of key research findings as well as details of study and researcher | 4-5 |
| Refers to one or more examples of psychological research but without detail (name of researcher and/or basic description of the study only | 2-3 |
| One or more personal or real life examples provided as evidence | 1 |
| No psychological evidence or incorrect evidence | 0 |
| **Scan techniques** | **6** |
| Any 2 of the following (one mark for identifying the method and two marks for explaining it)  MRI- using magnets and radio waves to produce a 2D image that can be formed into a 3D picture that can be rotated to look for abnormalities of the brain tissue,  fMRI-detects brain function by measuring the amount of oxygen in the neurons of the brain, more oxygen shows more activity of the brain,  PET-the patient takes a glucose tracer that goes to the brain to show where glucose consumption is in the brain, the more glucose consumption the more brain activity,  CAT-using x-ray imaging it takes cross-sectional sliced pictures of the brain that can help detect for abnormalities, strokes, and other injuries that may have caused changes in behaviour,  NB EEG is not a scanning technique |  |
| **Structure** | **3** |
| A well-constructed answer, use of appropriate psychological language | 3 |
| Answers with well-developed sentences and paragraphs | 2 |
| Lack of paragraph structure and incoherent responses | 1 |
| Answer is too brief or irrelevant | 0 |
| **TOTAL** | **/21** |

**Physical activity theorists: Fields, McCann and Holmes, Myers and Statistics Canada (at least two should be used)**

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Question 11 21 marks

After reading Dunphy’s study, a researcher wanted to see if teaching different communication skills to adolescents could help them to broaden their social groups.

* Explain Dunphy’s theory
* Explain **two (2)** non-verbal communication skills
* Explain assertive communication.

|  |  |
| --- | --- |
| **Question 11 Guide to Marking Extended Responses** | **Marks** |
| **Definitions** | **2** |
| Correct definitions (physical activity and emotional intelligence), with psychological theory discussed in relation to the topic | 2 |
| Correct definitions, but with some inaccuracy. | 1 |
| No definitions. | 0 |
| **Use of psychological evidence- Dunphy** | **5** |
| Detailed description of one or more examples of relevant psychological research (summary of key research findings as well as details of study and researcher | 4-5 |
| Refers to one or more examples of psychological research but without detail (name of researcher and/or basic description of the study only | 2-3 |
| One or more personal or real life examples provided as evidence | 1 |
| No psychological evidence or incorrect evidence | 0 |
| **Non-verbal communications** | **6** |
| Any 2 of the following (one mark for identifying the communication type and two marks for explaining it)  Body language: communication using bodily movement, posture and facial expressions  Facial Expressions: using the face to communicate for example frowning or smiling  Gestures: involves hand movements but not touch (thumbs up indicates good)  Touch: physical contact, touching some one on the head to show warmth  Physical Distance: a message is transmitted by the proximity to another person  Smell: a message is transmitted by how a person smells, brought about by cleanliness, perfume |  |
| **Assertive communication** | **5** |
| * The honest expression of opinions and feelings in a way that does not infringe on the right of others * Speak honestly and express your opinion and feelings * Explain that you understand the person’s position * State the problem and how you want it to change * Use “I” statements and use a calm voice   (Fletcher and Garton 2017) |  |
| **Structure** | **3** |
| A well-constructed answer, use of appropriate psychological language | 3 |
| Answers with well-developed sentences and paragraphs | 2 |
| Lack of paragraph structure and incoherent responses | 1 |
| Answer is too brief or irrelevant | 0 |
| **TOTAL** | **/21** |

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**Acknowledgements**

**Information from: Fletcher, J., & Garton, A. (2017). *Psychology – Self and Others.* Sydney: Pearson education Australia**

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