Icon

Description automatically generated with low confidence**PSYCHOLOGY ATAR – YEAR 11 2023  
Unit 1**

**Task 3: Test**

*Science Inquiry & Lifespan Psychology*

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Syllabus Points:**

* Science Inquiry
* Lifespan Psychology

**Conditions**

Time for the task:

* Reading time: 5 minutes
* Working time: 50 minutes to complete the test under supervised conditions

**Task weighting**

* 10%

**Structure of this paper**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Section | Number of questions available | Number of questions to be attempted | Suggested working time  (minutes) | Marks | Score |
| Section Two:  Short Answer | 3 | 3 | 30 | 39 |  |
| Section Two:  Extended Response | 1 | 1 | 20 | 19 |  |
|  |  |  | **Total** | 58 |  |

# Section One: Short Answer 70% (39 marks)

This section has **three** questions. Answer **all** questions. Write your answers in the space provided.

Supplementary pages for planning/continuing your answers to questions are provided at the end of the 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 for this section is 35 minutes.

**Question 1 (13 marks)**

Psychological theories have evolved over time based on collection of empirical evidence.

1. Distinguish between the psychological concepts of deprived and enriched environments. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Deprived environments are situations where a human does not have access to the stimulation necessary to meet physical, cognitive, or emotional milestones | 1 |
| Enriched environments are situations where a human has ample access to the stimulation & opportunities necessary to maximise their physical, cognitive, & emotional development | 1 |
| **Total** | **2** |

1. Justify why a case study is the preferred method for conducting research into deprivation. (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| A case study is the study of a singular individual or group | 1 |
| Any TWO of the following:   * Allows investigation into unethical circumstances * Provides detailed qualitative information on certain phenomena * May provide insight to conduct further controlled research | 1 - 2 |
| **Total** | **3** |

1. Outline three limitations in using a case study to conduct research. (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any THREE of:   * Lack of scientific rigour / difficult to control * Hard to generalize results to entire populations * Subjectivity of a researcher * Ethical or technical difficulties in replicating (inc. monetary or chronological barriers) | 1 - 3 |
| **Total** | **3** |

1. Identify a case study of a child (or children) in a deprived environment. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Genie Wiley, the Wild Child | 1 |
| **Total** | **1** |

1. Describe two findings from this research. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any TWO of the following:   * The deprived environment she was raised in did not allow her to develop language (1) as she was only able to understand a few single words when spoken to (1) * She had weak muscles used for chewing and swallowing (1) as she had never eaten solid food (1) * She was unable to stand up straight or fully extend her limbs or walk without shuffling her feet (1) due to being in restraints for much of her life (1) * Highly enriching environments, such as the hospital (1) helped her to continue to develop socially, emotionally, physically and cognitively (1) | 1 - 4 |
| **Total** | **4** |

**Question 2 (16 marks)**

Dr Sung was investigating risk taking behaviour in adolescents. 200 participants aged between 10 and 19 years old (110 females, 90 males) were recruited through local schools using posters and social media. Participants were told that they would receive a reward for pumping up as many balloons as possible to maximum inflation. However, no reward would be received for any balloons that burst. The number of pumps used by each participant was recorded and, after each participant had completed the activity, they were asked a series of questions where they described their experiences.

1. Identify the population and sample for this research. (2 marks)

|  |  |
| --- | --- |
| **Population** | Adolescents |
| **Sample** | 200 10 -19 year old adolescents from local schools |

1. Explain the type of data being collected by Dr Sung when she asked participants a series of questions. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Qualitative | 1 |
| She collected descriptions of their experiences/the answers were descriptive | 1 |
| **Total** | **2** |

1. Dr Sung was interested to see if there was a relationship between the average number of pumps and age of participants. She collated her data and presented it in the graph below:

Chart, scatter chart

Description automatically generated

1. Name the type of graph above. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Scatterplot | 1 |
| **Total** | **1** |

1. Describe the relationship between participants’ age and the mean number of pumps represented in the graph. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| There is no correlation | 1 |
| **Total** | **1** |

1. Dr Sung compared the number of balloons that were inflated to their maximum level for male and female participants for three age groups.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mean number of fully inflated balloons by females and males** | | | | |
| Age | 10 to 12 | | 13 to 15 | 16 to 18 |
| Females | 71 | 82 | | 87 |
| Males | 67 | 80 | | 84 |

1. Calculate the mean number of balloons inflated to their maximum for females and males.

(2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Females = 80 | 1 |
| Males = 77 | 1 |
| **Total** | **2** |

1. One female participant in the 10 to 12 years group inflated 80 balloons which was the highest score. The next highest score was 55. Explain the likely impact of this score on the mean for females in this study. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Because this score/the outlier was higher than the other scores | 1 |
| The mean for females is likely to have been higher than what it would normally have been without the outlier | 1 |
| **Total** | **2** |

1. Dr Sung told her participants that they would be rewarded for the number of balloons they inflated to maximum. However, at the end, they were told there was no actual reward.
2. What is the term used to describe giving misleading or false information to participants?

(1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Deception | 1 |
| **Total** | **1** |

1. Why would Dr Sung have included this false information in this experiment?

(2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Because the participants may not have tried as hard/been as motivated/not have achieved the same results | 1 |
| If they had known there was no reward | 1 |
| **Total** | **2** |

1. Having used false information, describe what Dr Sung must ensure that she does at the conclusion of the experiment?

(3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Debrief | 1 |
| Inform participants of the nature of the deception | 1 |
| Explain the reasons for deception | 1 |
| **Total** | **3** |

**Question 3 (10 marks)**

1. Describe two key features of Bowlby’s attachment theory. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any TWO of the following descriptions (2 marks each):   * Babies are genetically programmed to form attachments (1) by instinctively showing attachment forming behaviours like crying, cuddling, smiling, cooing (1) * Monotropy (1) where babies form a primary attachment to a single carer, usually the mother (1) * Attachment with the primary caregiver has to be formed during the sensitive or critical period (1) usually between 0-2 years (1). * The quality of attachment formed during the critical period (1) becomes the prototype (i.e. internal working model) for later relationships (1). * Lack of / disruption of attachment (deprivation) during the critical period (1) can lead to long term negative consequences on the child’s development (1) | 1 - 4 |
| **Total** | **4** |

1. The ground-breaking studies that laid the foundation for our current psychological understandings of parent-child attachment were conducted by John Bowlby and Harry Harlow in the 1950’s-60’s. Outline the key features of Harlow’s study on attachment:
2. Subjects / participants used (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| 8 rhesus monkeys separated from their mother at birth | 1 |
| **Total** | **1** |

1. Independent and dependent variables (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Independent variable: baby monkeys ‘fed’ by a cloth surrogate mother or by a wire surrogate mother | 1 |
| Dependent variable: time spent with each surrogate mother | 1 |
| **Total** | **2** |

1. Findings (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Contact comfort (provided by the softness of the cloth covering) was more important than feeding | 1 |
| in the formation of an infant rhesus monkey’s attachment to its mother | 1 |
| **Total** | **2** |

1. State one similarity between Harlow and Bowlby’s findings. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any ONE of the following:   * Attachment is based on emotional bonding rather than just fulfillment of biological needs. * Attachment figures provide a safe haven or secure base from which surroundings can be explored * Babies display attachment behaviours (cuddling, staying close) towards their primary caregiver | 1 |
| **Total** | **1** |

1. During the pandemic, a radical shift in working arrangements occurred where majority of parents shifted their workplace from their office to their homes. A UK study conducted in 2020 interviewed parents of 0-5 year old children who worked from home during the height of the pandemic. All parents interviewed were full-time carers of their child.

The parents were classified into a high stress group and a low stress group. The high stress group experienced financial difficulties, were mostly single parents or had relationship problems while the low stress group had lower income but felt supported by family and friends. Table 1 summarizes the perceptions of parents about themselves and their child rearing practices during the pandemic.

Table 1. Perceptions of parents about themselves and their child rearing practices during the pandemic.

|  |  |
| --- | --- |
| **High Stress Group** | **Low Stress Group** |
| Allowed their child to watch TV or play with technological devices (phone or tablet) for at least 4 hours a day alone | Read books, watched TV, and used technological devices with their child for at least 2 hours a day. |
| More episodes of becoming annoyed or short-tempered with their child | Shared daily routines (bathing, house chores, cooking) with their child |
| Felt lonely more than half the time | Felt lonely a few times |
| Hesitant to ask for help | Do not hesitate to ask for help |
| Feel that the pandemic would have negative impacts on their child’s development | Feel that the pandemic had positive outcomes for them and their child. |

1. Based on the parents’ perceptions listed in Table 1 above, differentiate the type of parent-child attachment that the children of the high stress and low stress group would have using Ainsworth’s attachment types. Your answer should include a justification for the attachment type identified. (4 marks)

|  |  |  |
| --- | --- | --- |
|  | **High stress group** | **Low stress group** |
| **Attachment type** | Any ONE of (1):   * (TYPE A) ANXIOUS/INSECURE AVOIDANT * (TYPE C) ANXIOUS/INSECURE RESISTANT/ AMBIVALENT | (TYPE B) SECURE ATTACHMENT (1) |
| **Justification** | Justification (1)  Parent often annoyed with the child OR feels lonely most times OR leaves the child alone for long periods means parent is less sensitive / gives the wrong response to the child’s signals | Justification (1)  Parent spends more time with the child OR feels supported OR has more bonding experiences means parent is more sensitive and gives the correct response to the child’s signals |

1. Based on Bowlby’s explanation of the impact of attachment, suggest how the experiences of the children in the high stress group during the pandemic would impact on their future relationships as adults. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any TWO of the following:   * Have more difficulty trusting others * See self as less valuable (low self-worth / low self-esteem) * Have difficulty expressing their needs to others | 1 - 2 |
| **Total** | **2** |

**END OF SECTION ONE**

# Section Two: Extended Response 30% (19 marks)

This section has **one** part.

You must answer **one** question.

Supplementary pages for planning/continuing your answers to questions are provided at the end of the 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 for this section is 20 minutes.

**Question 4 (19 marks)**

Isaac is a five year old boy who attends day-care. He loves to run and jump and has been known to throw toys. Isaac says his best friend at day-care is another boy named Ale. However, educators have told Isaac’s parents he struggles to share with others and recently bit Ale when Ale wouldn’t share.

* Define ‘brain plasticity’. (1 mark)
* Identify and explain the type of brain plasticity Isaac is experiencing. Justify your response by referring to two stages of plasticity relevant to Isaac. (6 marks)
* Explain the difference between cognitive and social development. (4 marks)
* Propose an area of development that Isaac is developed in and an area that Isaac is not developed in. Justify your response by referring to the scenario. (4 marks)
* Quality of response. (4 marks)

|  |  |
| --- | --- |
| **Guide to marking extended responses** | **Marks** |
| **Define ‘brain plasticity’** | **1** |
| The ability of neural connections to grow and reorganise | 1 |
| **Identify and explain the type of brain plasticity Isaac is experiencing** | **6** |
| Developmental plasticity (1) is the ability of neural connections in the brain to reorganise in response to sensory input from the environment (1) | 1 - 2 |
| Any TWO of the following:   * Proliferation (1) - The growth and division of cells, including neurons, that leads to the increase in total cell numbers (1) * Migration (1) - Newly generated neurons move throughout the brain until reaching their final position, which allows for connections between neurons to be made (1) * Circuit formation (1) - Neurons form neural circuits whereby neurons send electrochemical messages between each other (1) * Synaptic pruning (1) - As infants are born with more neurons than required, neurons that do not form active connections die to increase the efficiency of the nervous system (1) * Myelination (1) - A fatty substance called myelin starts growing over the axons of the neurons, insulating neural connections, and allowing for faster and more efficient nerve impulse travel throughout the brain (1) | 1 - 4 |
| **Explain the difference between cognitive and social development** | **4** |
| Cognitive – focuses on an individual’s information processing abilities throughout different stages of the lifespan (1)  Explains difference in detail (1) | 1 - 2 |
| Social – learning the values and skills that enables an individual to relate to others at different stages of their lifespan (1)  Explains in detail (1) | 1 - 2 |
| **Propose an area of development that Isaac is developed in and an area that Isaac is not developed in. Justify your response by referring to the scenario.** | **4** |
| Developed: Physical (1). He loves to run and jump (1). | 1 - 2 |
| Not developed: Social (1). He struggles to share his toys (1)  OR  Emotional (1). He has trouble controlling his emotions and expresses his frustration through biting (1). | 1 - 2 |
| **Quality of response** | **4** |
| Writes coherently using appropriate psychological terminology extensively, consistently and correctly.  Punctuation/grammar consistently correct and paragraphs organised logically. | 4 |
| Writes coherently using a range of mostly correct psychological terminology. Paragraphs organised logically.  Some errors in punctuation and grammar do not impede meaning. | 3 |
| Psychological terminology is simple and mostly correct.  Paragraphs are used and some errors in punctuation and grammar may be present but do not impede meaning. | 2 |
| Attempts to use paragraphs with limited use of correct psychological terminology.   May have limited correct use of punctuation and grammar. | 1 |