TASMANIAN ASSESSMENT, STANDARDS & CERTIFICATION

External Assessment 2023

Attach your candidate label here

PSYCHOLOGY

BHP315116

Pages: 20

Questions: 7

Answer Booklets: 3

Preparation time for this exam: 15 minutes

Suggested working time: 3 hours

Instructions:

- There are **three (3)** sections to this exam paper.
- You must answer **one (1)** question from each section:
  - **Section A –** answer **one (1)** question
  - **Section B –** answer **one (1)** question
  - **Section C –** answer **one (1)** question.
- Answer each section in a **separate answer booklet** and write the question number you are answering on the front cover of each answer booklet.
- The exam is **three (3) hours** in length. The suggested working time for each section is **approximately 60 minutes**.
- All answers must be written in **English**.
- You **must** make sure your answers address the listed criteria.

Guide to Exam Structure

	Questions available	Questions to answer	Suggested working time	Marks available
Section A	2	1	60 minutes	Assessed using extended ratings of A+ to z
Section B	3	1	60 minutes	
Section C	2	1	60 minutes	
Totals	**7**	**3**	**180 minutes (3 hours)**	**A+ to z rating**

Criteria

You **must** make sure your answers address:

- Criterion 1 analyse theories about individual differences
- Criterion 2 analyse perspectives about psychobiological processes
- Criterion 4 analyse theories about remembering
- Criterion 7 use evidence to support a psychological point of view.

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Section A - Remembering

- Answer **one (1)** question in this section in response to the stimuli provided.
- Attempt **all** items of the chosen question.
- Use a **separate answer booklet** for this section.
- It is suggested that you spend **approximately 60 minutes** on this section.
- This section assesses **Criteria 4 and 7**.

Question 1: Memory

Stimulus 1: Baddeley and Hitch Working Memory Model

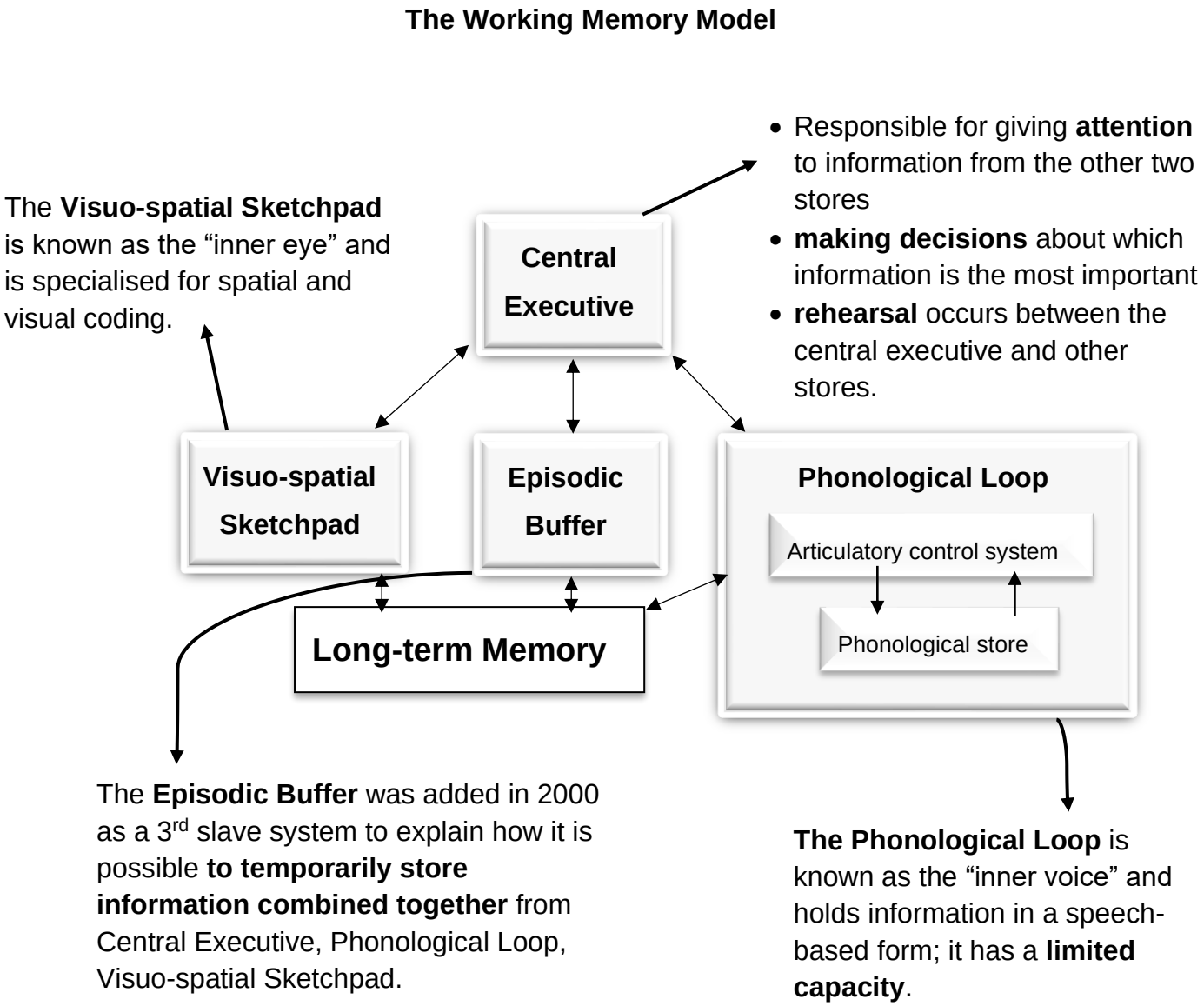


Figure 1: Diagram of the Working Memory Model.

Source: https://www.teachwithmrst.com/post/working-memory

Question 1 continues

Question 1 continued

Stimulus 2: Declarative versus Procedural Memory

Why does Clive Wearing play the piano but forget names?

After brain damage, Clive Wearing remembered how to play the piano but forgot the names of his children and had no memory of his wedding.

Wearing retained some memory abilities while losing others because different types of memory are stored differently in the brain. For instance, the ability to play the piano uses one type of long-term memory and remembering names and personal experiences uses a second type of long-term memory.

By far the most extraordinary example of Wearing's retained procedural memory is his ability to play the piano. He is able to skilfully play complex piano pieces, and playing the piano is one of the only ways that Wearing can experience any kind of continuity in his current life: even if he cannot remember starting to play the piece, he can complete it without getting lost or confused. After he finishes playing, Wearing quickly forgets ever having done so, although he has expressed an awareness that he used to be a musician.

Source: https://study.com/learn/lesson/clive-wearing-case-study-memory-psychology.html

Source: Plotnik, R. & Kouyoumdjian, H. (2011). *Introduction to Psychology (9th ed.)* Wadsworth. Belmont:CA.

Use the information presented in Stimulus 1 and 2, as well as other relevant information, to:

a) Explain the following concepts, and how they relate to the study of memory:

- Encoding
- Working Memory Model
- Storage in Long-Term Memory.

b) Critically evaluate at least **two (2)** models of memory and/or theories that help explain encoding, storage and retrieval of information in memory.

Question 2: Forgetting

Stimulus 1: Dementia-related Memory Loss

DESCRIPTION	DEMENTIA-RELATED MEMORY LOSS	NORMAL MEMORY LOSS
Events	Forgets parts or all of an event	Memory of events may sometimes be vague
Words or names for things or objects	Progressively forgets	Sometimes forgets; words or names are on the “tip of the tongue”
Attention	Increasingly unable to concentrate on TV programs, films, books, conversations	Able to follow
Written and verbal instructions	Increasingly unable to follow	Able to follow
Stored knowledge	Progressively loses information such as that relating to historical or political events	Recall may be slower, but information is essentially retained
Everyday skills such as dressing and cooking	Progressively loses capacity to perform routine tasks	Retains ability, unless physically impaired

Table 1: Dementia-related memory loss

Source: Van Iersel et al. (2017). *Nelson Psychology VCE Units 3 and 4.* Cengage Learning.

Question 2 continues

Question 2 continued

Stimulus 2: Improving Memory through Consolidation

In recent years, the effect of sleep on the consolidation of non-declarative memories, (i.e., motor and visual-procedural memories) has received considerable attention. Most recent studies on sleep-associated memory consolidation have focused on non-declarative types of tasks, such as motor sequence learning and perceptual learning. However, the first reports of enhanced memory consolidation during sleep came from studies investigating declarative memory for verbal material. Jenkins and Dallenbach (1924) found less forgetting of nonsense syllables after sleep periods than after wakefulness. Fowler et al. (1973) found higher retention of paired-associate words when participants slept during the first half of the night than when they were awake during daytime.

Source: https://learnmem.cshlp.org/content/13/3/259.full.html#ref-13

Use the information presented in Stimulus 1 and 2, as well as other relevant information, to:

a) Explain the following concepts in relation to forgetting:

- Dementia
- Interference
- Consolidation.

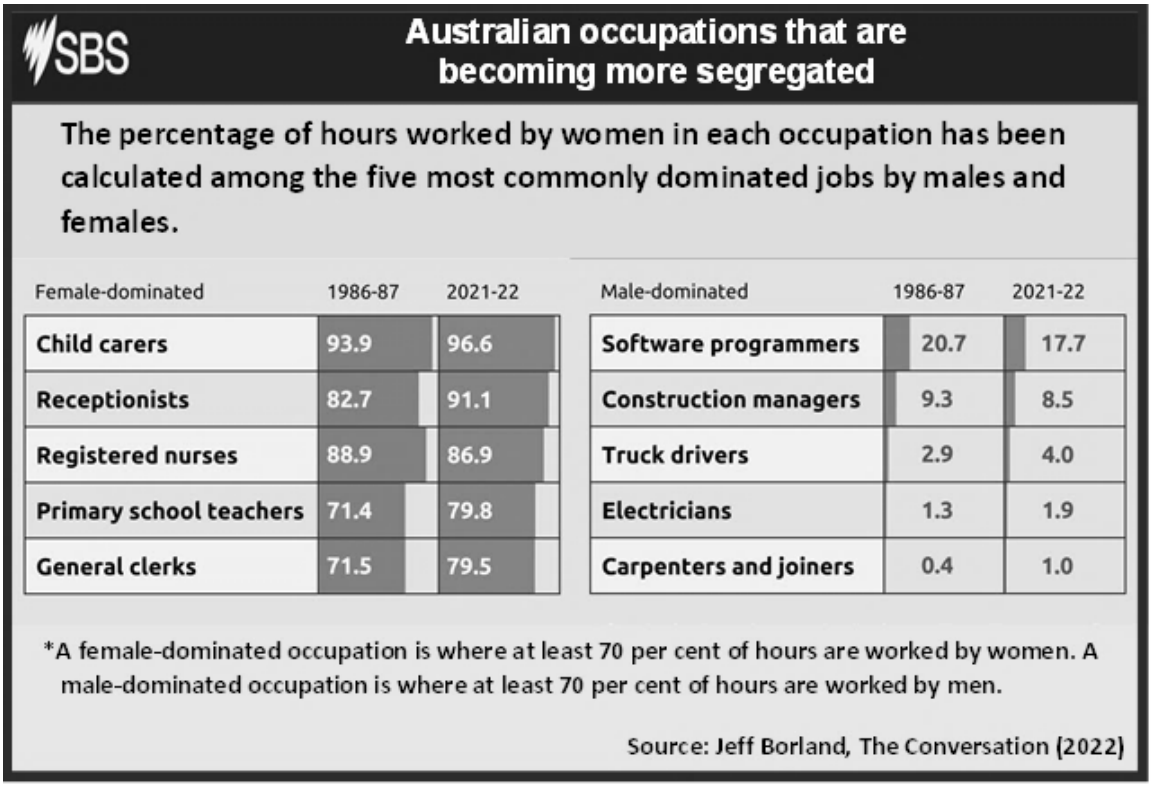
b) Critically evaluate the role of both organic and non-organic causes of forgetting.

Section B – Individual Differences

- Answer **one (1)** question in this section in response to the stimuli provided.
- Attempt **all** items of the chosen question.
- Use a separate answer booklet for this section.
- It is suggested that you spend **approximately 60 minutes** on this section.
- This part assesses **Criterion 1 and 7**.

Question 3: Gender

Stimulus 1: Occupations by Gender



Data from the Australian Bureau of Statistics shows female workplace participation has increased by 41 per cent since 1980 but there's still a low proportion of women in industries such as construction and mining as well as science, technology, engineering and mathematics (STEM).

Figure 2: Infographic of Australian occupations segregated by gender.

Source: Workplace gender segregation: These are the Australian occupations most affected | SBS News

Question 3 continues

Question 3 continued

Stimulus 2: Male and Female Brains

Scientific evidence shows that girls display more empathy and sensitivity towards others. For example, baby girls, as young as 12 months old, respond more empathically to others' distress, showing greater concern through more sad looks, sympathetic vocalisations, and comforting. Similarly, more women report sharing their friends' emotional distress, and they also spend more time comforting people. Women are also more sensitive to facial expressions, better at decoding non-verbal communication, picking up subtle nuances from tone of voice or facial expression or judging a person's character.

Boys, from toddlers onwards, are more interested in cars, trucks, planes, guns and swords, building blocks, constructional toys and mechanical toys. They seem to love putting things together and 'building' things, playing with toys that have clear functions, buttons to press, things that will light up or devices that will cause another object to move. Males are also generally better at map-reading and mental rotation.

Girls prefer dolls, soft toys and domestic articles.

All these differences are reflected in 'typical' male and female occupations, and hormonal factors are the most likely cause of this difference between male and female brains.

Source: Gross, R. (2010). *Psychology: The Science of Mind and Behaviour (6th ed.)* Hodder Education.

Use the information presented in Stimulus 1 and 2, as well as other relevant information, to:

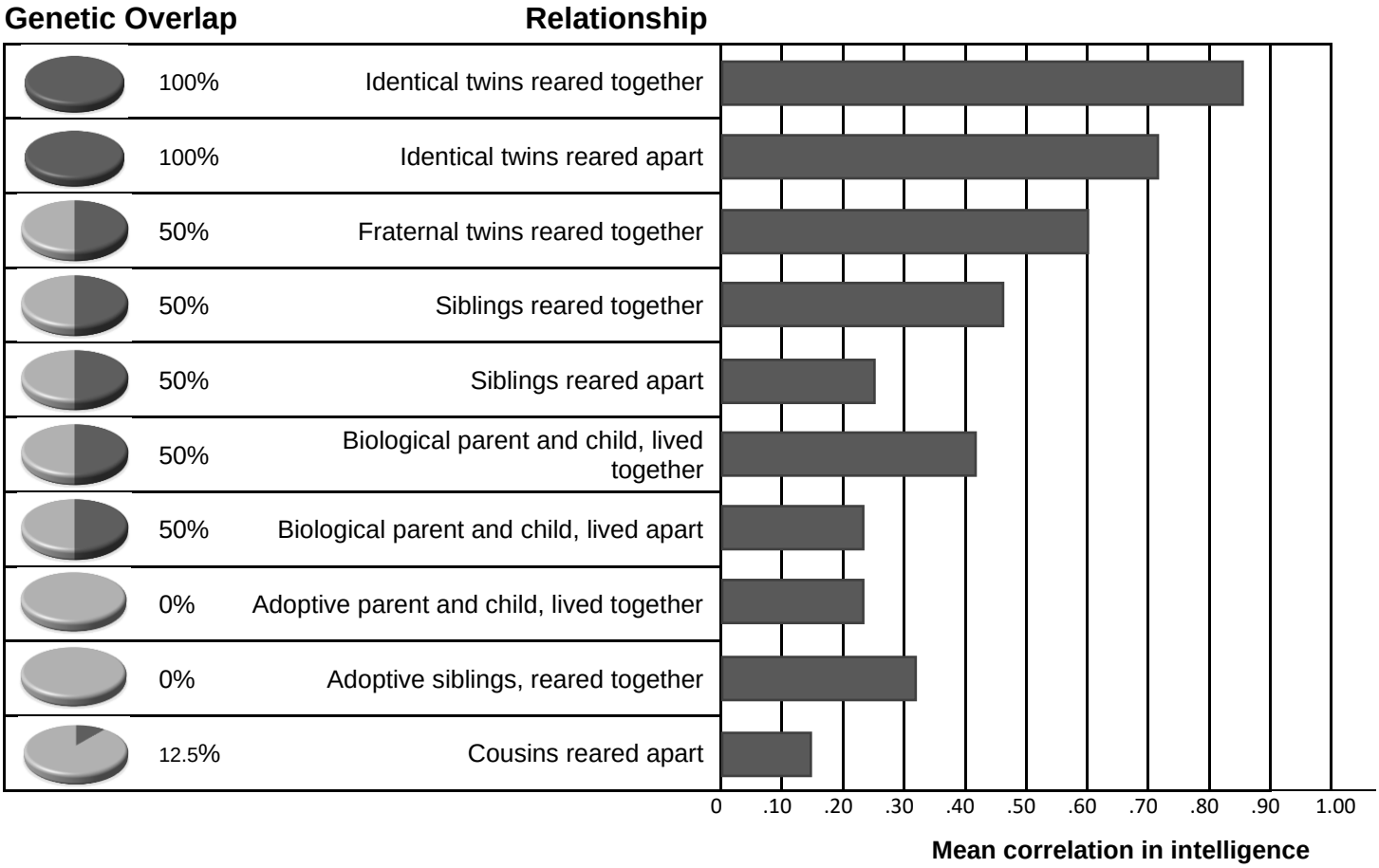
a) Explain the following concepts in relation to individual differences in gender:

- Gender
- Gender stereotypes
- Brain differences.

b) Critically evaluate both biological and environmental influences on gender differences.

Question 4: Intelligence

Stimulus 1: Studies of IQ Similarity



The graph shows the mean correlations of IQ scores for people of various types of relationships, as obtained in studies of IQ similarity. Higher correlation indicate greater similarity. The results show that greater genetic similarity is associated with greater similarity in IQ.

Figure 3: Graph of the mean correlation of IQ scores for people of varying relationship types.

Source: Weiten, W. (2010). *Psychology: Themes & Variations. (8th ed).* Cengage Learning.

Question 4 continues

Stimulus 2: Genetic Influence on Intelligence

Studies have not conclusively identified any genes that have major roles in differences in intelligence. It is likely that a large number of genes are involved, each of which makes only a small contribution to a person's intelligence. Other areas that contribute to intelligence, such as memory and verbal ability, involve additional genetic factors.

Intelligence is also strongly influenced by the environment. During a child's development, factors that contribute to intelligence include their home environment and parenting, education and availability of learning resources, and healthcare and nutrition. A person's environment and genes influence each other, and it can be challenging to tease apart the effects of the environment from those of genetics. For example, if a person's level of intelligence is similar to that of their parents, is that similarity due to genetic factors passed down from parent to child, to shared environmental factors, or (most likely) to a combination of both? It is clear that both environmental and genetic factors play a part in determining intelligence.

Source: https://medlineplus.gov/genetics/understanding/traits/intelligence/

Use the information presented in Stimulus 1 and 2, as well as other relevant information, to:

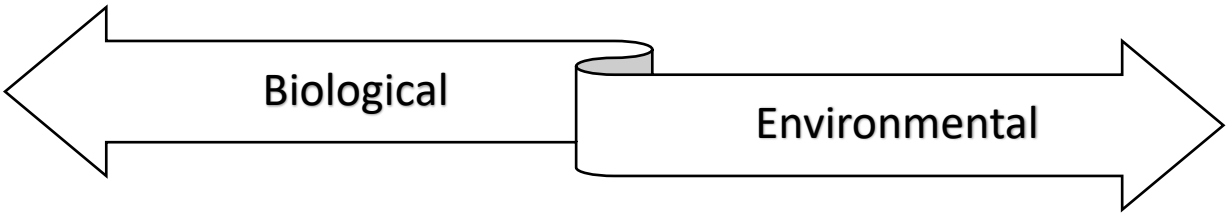
a) Explain the following concepts in relation to individual differences in intelligence:

- IQ
- Environmental influences
- Interaction of genetic and environmental factors.

b) Critically evaluate both genetic and environmental influences on intelligence.

Question 5: Personality

Stimulus 1



Trait Theory	Psychodynamic Theory	Social Cognitive Theory	Humanistic Theory	Behaviourist Theory
Although some trait theorists assume that traits are biologically determined, others make no such assumption. • Allport (1936) • Cattell (1940) • Eysenck (1990) • Costa & McCrae (2004)	Heavily focuses on the biological causes of personality. • Freud (1940) • Jung (1933)	Explains personality in terms of how a person thinks about and responds to one's social environment. • Bandura (1986) • Mischel (1973) • Rotter (1978)	Focuses on the role of each person's conscious life experiences and choices in personality development. • Rogers (1980) • Maslow (1968)	Based on the theories of learning and focuses on the effect of the environment on behaviour. • Skinner

Figure 4: Diagram of how psychological theories view nature vs nurture and personality.

Source: adapted from: https://practicalpie.com/nature-vs-nurture-personality/

In psychology, the extreme nature position (biology) proposes that personality traits are inherited and determined only by genetics.

On the opposite end of the spectrum, the extreme nurture position (environment) asserts that the mind is a blank slate at birth; external factors like education and upbringing determine who someone becomes in adulthood. Personality theories could be examined from these positions however not all theories were developed with these assumptions in place.

Adapted from: http:www.verywellhealth.com/nature-vs-nurture-5323408

Question 5 continues

Question 5 continued

Stimulus 2: Personality Tests in the Workplace

There are many ways that personality tests can make a positive difference in the workplace, but that doesn't mean they are foolproof. Some argue that these assessments can only shed light on an employee's current state (which can change in different situations) rather than their enduring personality traits.

"We found that the nuances of how a person conducts themself in a job setting couldn't really be captured with a single personality test," said David Dhoklia, Director of Operations at Force by Mojio.

A potential pitfall of personality tests is the risk of pigeon-holing employees into overly simplified categories. Multiple choice assessments are convenient and easy to scale, but they can't capture the type of rich data needed to paint a full picture of someone. As Brad Touesnard, Founder and CEO of SpinupWP, pointed out, "Personality tests can also fail to account for factors like cultural background or language barriers."

The accuracy of data collected from personality tests should also be interpreted with a grain of salt. Chances are that potential candidates and current employees have done their research on which qualities and skills your company looks for in its people, and this knowledge might affect the authenticity of their responses.

Adapted from: https://lattice.com/library/do-personality-tests-belong-in-the-workplace

Use the information presented in Stimulus 1 and 2, as well as other relevant information, to:

a) Explain the following concepts in relation to individual differences in personality:

- Personality
- Measures of personality
- Biological influences.

b) Critically evaluate the genetic and environmental influences on personality development throughout an individual's lifespan.

Section C – Psychological Processes

- Answer **one (1)** question in this section in response to the stimuli provided.
- Attempt **all** items of the chosen question.
- Use a separate answer booklet for this section.
- It is suggested that you spend **approximately 60 minutes** on this section.
- This part assesses **Criterion 2 and 7**.

Question 6: Visual Perception

Stimulus 1: Expectancy and Context

Figure 5: Image of B/13 context.

Minturn and Bruner (1951) showed the middle figure would be more likely perceived as a letter if presented amongst other letters and a number if presented amongst other numbers.

Source: Grivas, J. (2013). *Psychology for Tasmania.* Macmillan.

Question 6 continues

Stimulus 2: Strategic Deception Involving Size Constancy

Deception of distance by changing the real size of a familiar object was a strategy employed by the Allied Army against the German Army in World War II. To deceive the Germans, the Allies dropped life-like dummies with self-releasing parachutes from aircraft. When the dummies hit the ground they set off explosions to simulate ground fire. These dummies were actually about one-third the size of an average man, but the German observers would have perceived them as life-sized from a distance. Being familiar with the form of a human figure, the Germans would have used size constancy to estimate the distance of the dummy paratroopers. This was the key to the deception. Assuming that the Germans maintained size constancy, the Allies predicted that the Germans would incorrectly estimate the distance between themselves and the paratroopers. The real Allied troops were situated between the Germans and where the dummies landed. The Germans, believing they had plenty of time to plan their assault, were taken by surprise when they were soon attacked by the Allies at close range. Given that the dummies were only one-third life-size, the Germans probably overestimated the Allied paratroopers' distance by a factor of three.

Source: (Grivas, J. (2013). *Psychology for Tasmania.* Macmillan.

Use the information presented in Stimulus 1 and 2, as well as other relevant information, to:

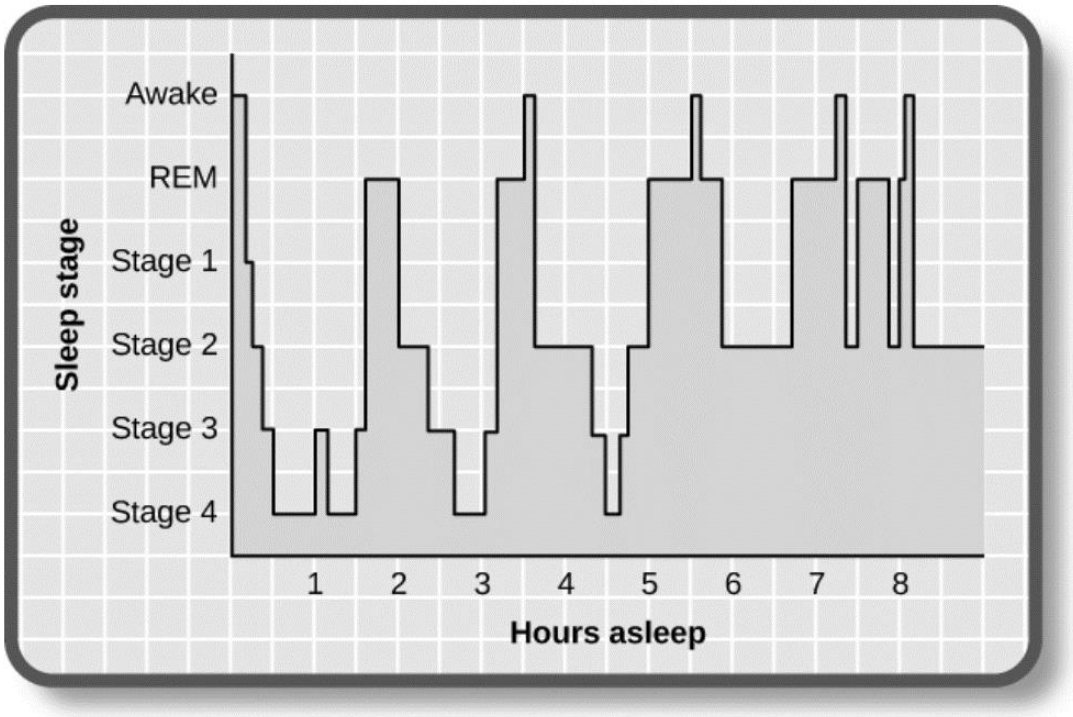
a) Explain the following concepts in relation to visual perception:

- Perceptual set
- Top-down processing
- Size constancy.

b) Critically evaluate different psychological perspectives to explain visual perception.

Question 7: Consciousness

Stimulus 1: The Sleep Cycle



A hypnogram is a diagram of the stages of sleep as they occur during a period of sleep. This hypnogram illustrates how an individual moves through the various stages of sleep.

Figure 6: Hypnogram mapping the stages of sleep.

Source: https://courses.lumenlearning.com/suny-hccc-ss-151-1/chapter/stages-of-sleep/

Stimulus 2: Learning to Drive

Controlled processes are experienced in all areas of life. A good example of a controlled process is when someone is learning to drive a manual car. Here, the person needs to concentrate on controlling the steering wheel; coordinating the brake, clutch and accelerator when changing gears; and using the indicator when turning (not to mention the windscreen wipers when it is raining!). To top off this extraordinary process, the car needs to be navigated through highly variable traffic, road and weather conditions at all different times of the day and night. After some practise, driving a car requires much less concentration and awareness than when initially learning the skill. Experienced drivers are capable of simultaneously driving, holding a conversation, changing a radio station, or finding their way around an unfamiliar suburb. As with many other complex skills, driving a car can become automatic practice. When this happens, actions shift from being controlled processes to automatic processes.

Source: Van Iersel et al. (2017). *Nelson Psychology VCE Units 3 and 4.* Cengage Learning.

Question 7 continues

Question 7 continued

Use the information presented in Stimulus 1 and 2, as well as other relevant information, to:

a) Explain the following concepts in relation to states of consciousness:

- Altered states of consciousness
- Controlled or automatic processes
- NREM and REM stages of sleep.

b) Critically evaluate theories used to explain the purpose of sleep **or** why we dream.

End of Exam

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