

Section One: Short Answer

70% (119 Marks)

This section has **eight** 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.

Question 1

(17 marks)

- (a) State a psychological definition of memory.

(2 marks)

- (b) Compare the sensory and long-term memory stores of the Atkinson and Shiffrin (1968) multi-store model with reference to capacity and duration.

(3 marks)

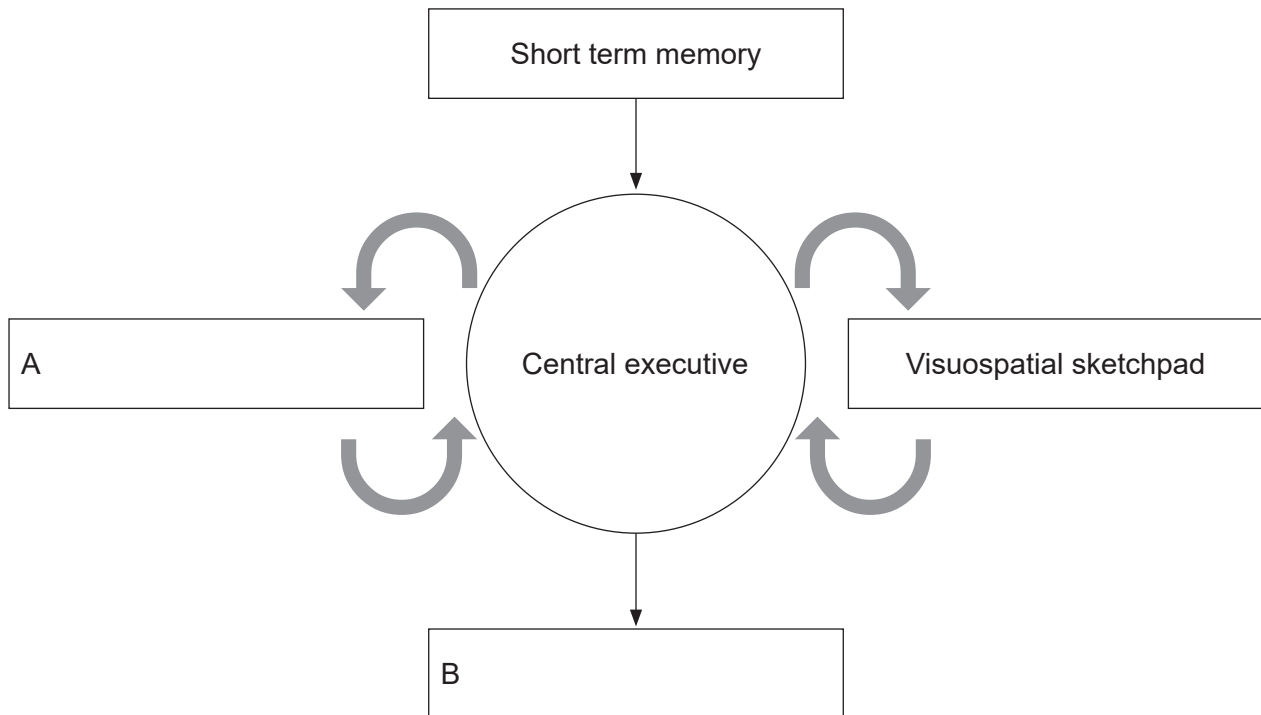
- (c) State **one** limitation of Atkinson and Shiffrin's model of memory according to Baddeley and Hitch, and outline how the Baddeley and Hitch (1974) working memory model addresses this.

(2 marks)

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Question 1 (continued)

The diagram below represents Baddeley and Hitch's (1974) working memory model.



- (d) Label parts A and B in the diagram above. (2 marks)

Vu was working away from home and was reading from a storybook over the phone to his children. He was describing a picture to his children. The children listened while Vu spoke.

- (e) Referring to Baddeley and Hitch's (1974) working memory model, outline the role of each of these components with respect to Vu's and the children's working memory.

- (i) Central executive (2 marks)

Vu: _____

Children: _____

- (ii) Visuospatial sketchpad (2 marks)

Vu: _____

Children: _____

Baddeley updated the working memory model in 2000 and added another component.

- (f) Identify the name given to this new component. (1 mark)

- (g) Describe the role of this component and apply it to Vu's children. (3 marks)

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Question 2

(14 marks)

Chronic Traumatic Encephalopathy (CTE) is a cause of memory loss that is thought to be a result of repeated head injuries and concussion. A large majority of recent research on CTE has been on athletes in contact sports such as football.

A study published in 2022 proposed there is a cause-and-effect relationship between repetitive head impacts (RHI) and CTE. This study acknowledged it is not feasible to conduct experimental research on humans to establish a cause-and-effect relationship using these two variables, and instead applied a measure called the Bradford Hill criteria for causation.

- (a) Identify the cause of memory loss in CTE. Circle the correct response. (1 mark)

Trauma

Degeneration

Drug induced

Currently there are no clinical diagnostic criteria for CTE and while most cases are diagnosed post-mortem during autopsies, there are common changes to behaviour and emotion reported prior.

- (b) State **two** impacts that CTE can have on behaviour **or** emotion. (2 marks)

One: _____

Two: _____

- (c) Identify the following variables in the 2022 study above.

(i) Independent: _____ (1 mark)

(ii) Dependent: _____ (1 mark)

- (d) Using your understanding of ethical guidelines and practices, explain why it is **not** feasible to conduct experimental research on this topic. (3 marks)

The 2022 study identified that one of the major challenges with regards to research on CTE is the lack of longitudinal studies.

- (e) (i) Propose how researchers could conduct a longitudinal study on CTE. (4 marks)

- (ii) State **one** strength and **one** limitation of longitudinal studies as a research design. (2 marks)

Strength: _____

Limitation: _____

Question 3

(19 marks)

Bruno is in Year 7 and is the youngest of three children. His older sister, Carlotta, is in Year 12 and is a talented pianist who is planning on studying music at university. His brother, Dino, is in Year 8 and plays the cello in the school orchestra. Bruno remembers always watching his siblings play at concerts, and them winning many awards at school assemblies for their musical achievements.

Bruno is already able to play the violin and his parents praise him when he tells them that he is going to audition for the school orchestra.

- (a)
- Complete the table below demonstrating your understanding of **four** processes of observational learning.
- (8 marks)

Process	Description	Application to Bruno
	Individuals need to be focused on the modelled behaviour	
Retention		
		Bruno is already able to play the violin
Motivation		

- (b)
- Describe vicarious reinforcement and include **one** example of this from the scenario above.
- (3 marks)

Bandura, Ross and Ross (1961) conducted a study on observational learning also known as the 'Bobo Doll' experiment.

- (c) State the aim of Bandura, Ross and Ross's (1961) research. (1 mark)

- (d) Referring to the scenario on page 8, assess which sibling is likely to have had the most influence on Bruno's behaviour. Justify your answer with findings from Bandura, Ross and Ross's (1961) research. (3 marks)

- (e) (i) With reference to their sampling method, select whether or not Bandura, Ross and Ross's (1961) sample is representative of the target population. Circle the correct response. (1 mark)

Yes

No

- (ii) Justify your response to part (e)(i). (3 marks)

Question 4

(10 marks)

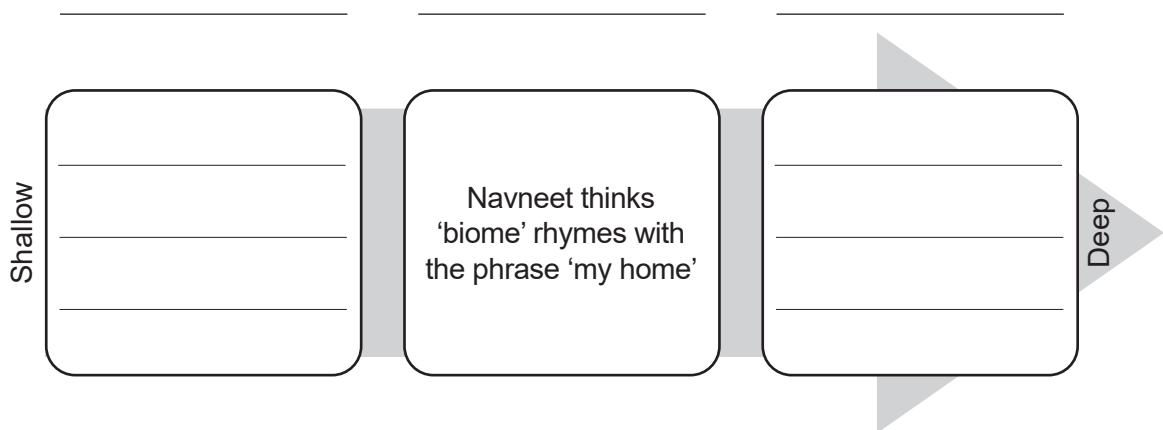
Navneet is revising for a Geography test. He identifies two terms that he is having difficulty remembering the meaning of and decides to focus on these terms during his revision.

Terms:

- Biome: an area with similar flora, fauna and climate.
- Climate zone: an area with similar long-term weather patterns such as rainfall and temperature.

- (a) Identify the type of remembering that Navneet will be experiencing while revising. (1 mark)

- (b) Demonstrate your understanding of Craik and Lockhart's (1972) levels of processing by labelling the diagram below and providing examples in relation to Navneet. (5 marks)



Craik and Tulving (1975) conducted a study which examined how levels of processing had an impact on recall.

- (c) Summarise the method used in their study. (3 marks)

- (d) Outline **one** contribution of Craik and Tulving's (1975) research. (1 mark)

Question 5

(16 marks)

Irene's workplace is interested in investigating the psychological wellbeing of its employees. Most of her colleagues describe Irene as being a warm and outgoing person who works well with everyone in her team, but is overly concerned about judgement from other people and will quickly go along with their ideas at the expense of her own.

- (a) Identify **one** factor from Ryff's (1989) model of psychological wellbeing that Irene is high in and identify **one** factor she is low in. (2 marks)

High: _____

Low: _____

All employees are given a copy of a survey designed to measure each factor of psychological wellbeing. The survey is a condensed version of the Ryff psychological wellbeing inventory, which has 18 questions in total. The employees rate statements (3 per factor) on a scale of 1 to 6.

The results from the survey indicated that overall the employees at Irene's work scored low on the personal growth factor.

- (b) List **two** characteristics of someone who would score low on personal growth. (2 marks)

One: _____

Two: _____

The medium and long forms of Ryff's psychological wellbeing inventory consist of 54 and 84 standardised questions respectively. It has been used in many contexts.

- (c) Define reliability and outline why these inventories would be more reliable than the survey administered at Irene's work. (2 marks)

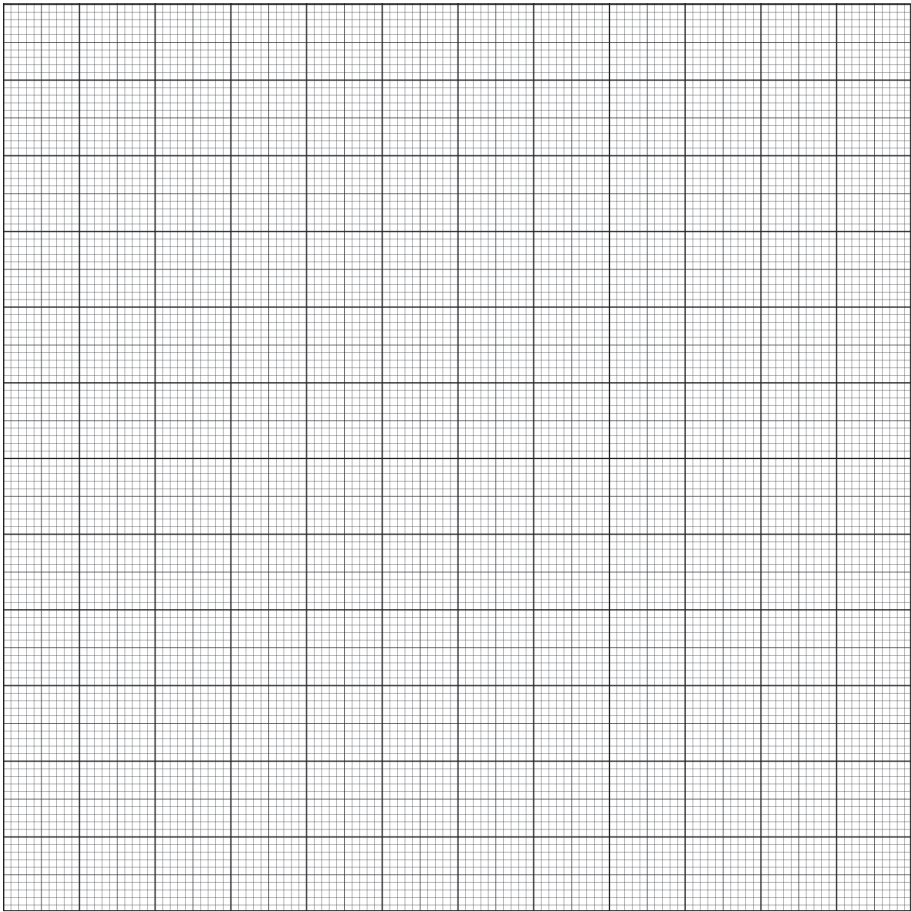
Question 5 (continued)

The human resources manager implemented a wellbeing improvement program to increase the employees’ level of wellbeing on the personal growth and self-acceptance factors. She used the scores from the survey as a baseline and then had the employees complete it again after the program.

The mean scores before and after the program are shown in the table below.

	Before	After
Personal growth	2	5.5
Self-acceptance	3.5	5

- (d) Construct an appropriate graph to display the data.
- (5 marks)



A spare grid is provided at the end of this Question/Answer booklet. If you need to use it, cross out this attempt and indicate that you have redrawn it on the spare page.

The human resources manager decides to use a mixed methods research design to investigate the impact of the program.

- (e) Describe **one** strength of a mixed methods design. (2 marks)

- (f) Propose how the human resources manager could collect qualitative data by applying this method to the scenario. (3 marks)

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Question 6**(13 marks)**

Shivanya is going on her first solo overseas trip to Europe after completing high school. Her first destination is Paris with a stopover in Singapore for two hours. When Shivanya arrives at the airport, she finds out that her flight to Singapore has been delayed by four hours and she panics as this means she will miss her connecting flight to Paris.

Shivanya feels calmer when the airline tells her they can book her a seat on another flight from Singapore to Paris for no extra charge.

Her other concern is her accommodation for the night in Singapore. She doesn't want to spend over 18 hours waiting at the terminal, so she decides to ask the airline if they are willing to provide her with a voucher for a hotel near the airport.

- (a) State Selye's (1936) psychological definition of stress. (1 mark)

Lazarus and Folkman (1984) created the Transactional Theory of Stress and Coping.

- (b) Describe the key idea of Lazarus and Folkman's (1984) theory. (2 marks)

- (c) Outline the role of the following cognitive appraisals and apply them to Shivanya. (4 marks)

Primary: _____

Application: _____

Secondary: _____

Application: _____

- (d) Explain the method of coping Shivanya is using in the scenario. (3 marks)

- (e) Name and outline **one** other method of coping Shivanya could use. Include an example relating to the scenario. (3 marks)

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Question 7

(12 marks)

Researchers are wanting to investigate changes in the sleep cycle and ageing, specifically the relationship between age and the amount of time spent in rapid eye movement (REM) sleep. They collect a sample of 200 participants between the ages of 5 and 75. The researchers collect data using a range of physiological measures, including electroencephalogram (EEG) and heart rate.

- (a) Identify the type of non-experimental research design used in this study. (1 mark)

- (b) Outline **two** characteristics of REM sleep other than eye movement and heart rate. (2 marks)

One:

Two:

- (c) Construct a directional hypothesis for this study. (2 marks)

- (d) Describe and justify which sampling method would be most appropriate for this study. (3 marks)

After the researchers collected data and ran several statistical analyses on the relationship between age and the amount of time in REM sleep, they found $r = -0.8$.

- (e) Discuss whether the hypothesis you constructed in part (c) was supported or rejected.
(4 marks)

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Question 8

(18 marks)

Nerida is a 16-year-old who is experiencing partial sleep deprivation. For the past few months she has averaged five hours of sleep per night and wakes up multiple times during the night. One of the things that wakes her up is social media notifications from her phone, which is on her bedside table next to her as she also uses it as an alarm to wake her up in the morning. Nerida says it's convenient for her to put her phone there as she often scrolls through social media before she goes to bed or if she can't fall asleep.

- (a)
- Identify and describe the main cause of Nerida's sleep deprivation.
- (3 marks)

- (b)
- Complete the table below to name and demonstrate **one** physiological and **one** psychological impact that partial sleep deprivation could have on Nerida.
- (4 marks)

	Name	Demonstrate how it will have an impact
Physiological		
Psychological		

He et al. (2020) conducted a study investigating techniques to improve sleep hygiene.

- (c)
- State the aim of He et al.'s (2020) research.
- (1 mark)

Below is an example of a statement from one of the data collection measures used in their research – the Pre-sleep Arousal Scale (PSAS):

When I try to fall asleep in my usual environment bedroom, I am distracted by sounds/noise in the environment (e.g. ticking of clock, house noises, traffic).

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

- (d) (i) State the method of data collection that the PSAS is classified as. (1 mark)

- (ii) Identify **one** strength and **one** limitation of this method of data collection. (2 marks)

Strength: _____

Limitation: _____

- (e) Apply the findings of He et al.'s (2020) research to Nerida. (4 marks)

Question 8 (continued)

- (f) Propose **one** technique, other than environment and management of devices, that Nerida could use to improve her sleep hygiene. (3 marks)

End of Section One

Section Two: Extended answer**30% (48 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.

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