

insight™
YEAR 12 Trial Exam Paper

2014

PSYCHOLOGY

Written examination

STUDENT NAME:

Reading time: 15 minutes

Writing time: 2 hours 30 minutes

QUESTION AND ANSWER BOOK

Structure of book

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	65	65	65
B	18	18	60
C	4	4	15
			Total 140

- Students are permitted to bring the following items into the examination: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring sheets of paper or white-out liquid/tape into the examination.
- Calculators are not permitted in this examination.

Materials provided

- The question and answer book of 47 pages and an answer sheet for the multiple-choice questions.
- Additional writing space is provided at the end of this book.

Instructions

- Write your **name** in the box provided and on the multiple-choice answer sheet.
- You must answer the questions in English.

At the end of the examination

- Place the answer sheet for the multiple-choice questions inside the front cover of this book.

Students are NOT permitted to bring mobile phones or any other unauthorised electronic devices into the examination.

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Section A – Multiple-choice questions

Instructions for Section A

Answer all questions on the multiple-choice answer sheet provided, in **pencil**.

Choose the response that is **correct**, or that **best answers** the question.

A correct answer scores 1, an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be awarded if more than one response is given for any question.

Question 1

Kristina often listened to music while studying. As she was typing up her English essay she was singing along to the music, but from time to time she had to stop singing and focus solely on her work. As she worked it is likely that Kristina was

- A. shifting between controlled processes and selective attention.
- B. shifting between selective and divided attention.
- C. shifting between normal waking consciousness (NWC) and an altered state of consciousness (ASC).
- D. shifting between daydreaming and selective attention.

Question 2

Later Kristina was lying on the floor, watching TV and occasionally imagining herself as the lead actress in the television program, seeing herself on the red carpet and accepting an Academy Award. In this instance Kristina was

- A. shifting between controlled and automatic processes.
- B. shifting between selective and divided attention.
- C. shifting between normal waking consciousness and an altered state of consciousness.
- D. shifting between daydreaming and automatic processes.

Question 3

During normal waking consciousness

- A. we control our cognitions and these are usually organised and logical.
- B. we are unaware of the amount of time that has passed.
- C. our perceptions are often distorted.
- D. our thinking is always clear and focused.

SECTION A – continued
TURN OVER

Use the following information to answer Questions 4–9.

Lachlan had been having difficulty sleeping and so decided to undergo treatment at a sleep clinic. The staff advised him that various physiological responses would be measured as he slept.

Question 4

Lachlan was also advised that his brain waves would be measured. The method used to measure these would most likely be

- A. an electromyograph.
- B. an electro-oculargraph (EOG).
- C. an electroencephalograph (EEG).
- D. an fMRI scanner.

Question 5

Which of the following brain wave patterns would indicate that Lachlan was in Stage 2 NREM sleep?

- A. beta waves with sleep spindles
- B. theta waves with sleep spindles
- C. alpha waves with K-complexes
- D. delta waves

Question 6

Lachlan was also told that his GSR would be measured. This is a measurement of

- A. the level of resistance of the skin to an electrical current.
- B. the electrical activity of the muscles that move the eyes.
- C. the temperature of the body during sleep.
- D. the level of perspiration produced during sleep.

Question 7

Lachlan was attached to an electro-oculargraph for a period of time. The electro-oculargraph is useful for determining if a person is

- A. truly asleep.
- B. in REM or NREM sleep.
- C. experiencing nightmares.
- D. moving the skeletal muscles during sleep.

Question 8

Lachlan was later asked to complete a questionnaire about the quality of his sleep. This is an example of using _____ to collect data.

- A. observation
- B. video monitoring
- C. psychometric testing
- D. self-report

Question 9

It would be expected that, as Lachlan slept, the equipment used to monitor his sleep cycles would indicate that he would spend a greater amount of time in REM sleep

- A. during Stage 3 sleep.
- B. when experiencing night terrors.
- C. in the NREM/REM cycles that occur earlier in the night.
- D. in the NREM/REM cycles that occur later in the night.

Question 10

The main role of the somatosensory cortex is to

- A. transmit messages between the central nervous system (CNS) and the peripheral nervous system (PNS).
- B. transmit messages between the brain and the lower body.
- C. receive sensory information from the body and process this information.
- D. process visual information transmitted via the optic nerves.

Question 11

Jemahl tripped over a tree root as he was running, injuring his left foot. This caused him to raise his foot from the ground. The neural message that originated in the injured left foot would be processed in

- A. the left primary motor cortex and the left somatosensory cortex.
- B. the right somatosensory cortex and the right primary motor cortex.
- C. the right primary motor cortex.
- D. the right somatosensory cortex.

Use the following information to answer Questions 12–15.

Dearne is a 55-year-old woman. Following a period of prolonged high blood pressure and extreme stress, she suffered a cerebral haemorrhage or stroke. This resulted in irreversible damage to her left frontal lobe.

Question 12

One possible outcome of the brain damage would be

- A. difficulty with understanding the spoken word.
- B. difficulty with articulating grammatically complex sentences.
- C. difficulty with recalling information learned prior to the stroke.
- D. difficulty with constructing coherent responses to questions.

Question 13

Dearne undertook speech therapy to help her regain some of her lost abilities. Within 12 months it was evident using brain-scanning techniques that brain plasticity had assisted her to partially recover. This would be shown by

- A. association areas adjacent to Broca's area being activated when Dearne was speaking.
- B. association areas adjacent to Wernicke's area being activated when Dearne was speaking.
- C. the damaged section of Broca's area being reactivated when Dearne was speaking.
- D. the damaged section of Wernicke's area being reactivated when Dearne was speaking.

Question 14

Dearne's partial recovery is most likely explained by

- A. developmental plasticity due to the regeneration of the neurons in the damaged area.
- B. developmental plasticity due to new synapses developing as a result of the speech therapy.
- C. adaptive plasticity due to the regeneration of the neurons in the damaged area.
- D. adaptive plasticity due to new synapses developing as a result of the speech therapy.

Question 15

Dearne had just arrived at a party when she had the stroke. Later when she regained consciousness, she had no recollection of being at the party. This is **best** explained in terms of

- A. the semantic network theory.
- B. the serial position effect.
- C. the consolidation theory.
- D. the motivated forgetting theory.

SECTION A – continued
TURN OVER

Question 16

The skeletal muscles are controlled by interaction between the

- A. frontal lobes and somatic nervous system.
- B. frontal lobes and autonomic nervous system (ANS).
- C. parietal lobes and somatic nervous system.
- D. parietal lobes and autonomic nervous system.

Question 17

The somatosensory cortex and the primary motor cortex have lesser or greater cortical areas devoted to different body parts. The primary cortical area devoted to the fingers is greater than the area devoted to the knees because

- A. the greater the dexterity of a body part, the greater the cortical area needed.
- B. the greater the sensitivity of a body part, the greater the cortical area needed.
- C. the greater the dexterity of a body part, the less cortical area needed.
- D. the greater the dexterity and sensitivity of a body part, the greater the cortical area needed.

Question 18

The main role of the spinal cord is to

- A. carry neural messages between the CNS and the PNS.
- B. allow communication between the brain and the rest of the body.
- C. transmit neural messages between the brain and the lower body.
- D. receive sensory messages from the body's sensory receptor sites.

Question 19

Split-brain surgery may be used in extreme epilepsy cases. The main effect of severing the corpus callosum in split-brain surgery is to

- A. prevent visual information being sent to each side of the brain simultaneously.
- B. separate the hemispheres so that they no longer work together.
- C. separate the two hemispheres at the subcortical level.
- D. prevent communication between the two hemispheres at the higher cortical level.

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Question 20

In one of Sperry and Gazzaniga's studies into the capacity of split-brain patients to process visual information, words were presented to either the left or right visual field. When a word was presented to the left visual field, and processed in the right hemisphere

- A. patients could identify the word by naming it.
- B. patients could verbally describe what they saw.
- C. patients could not verbally identify the word but could identify it by touching the corresponding object with their right hand.
- D. patients could not verbally identify the word but could identify it by touching the corresponding object with their left hand.

Question 21

One key finding of the Sperry and Gazzaniga studies was that

- A. the left hemisphere has different language skills from the right hemisphere.
- B. the left and right hemispheres have the same language skills but these are limited in split-brain patients.
- C. the left hemisphere will know what the right is doing even if the split-brain patient cannot name an object shown to the left visual field.
- D. left-handed people will usually have their language centres in the right brain.

Question 22

Which of the following scenarios suggests the person is predominantly using the frontal lobes?

- A. David recognised his friend Jake as he was coming towards him.
- B. David spent a lot of time thinking about the topics discussed in his philosophy class and planning the essay he needed to write in response.
- C. David enjoyed walking through the city and observing the architecture, then later drawing pictures of the buildings from memory.
- D. Jake understood what David said when he called out to him.

Question 23

Irina has been diagnosed with spatial neglect. It is likely that she would

- A. eat only the food on the right side of her plate as she isn't aware of the left side of the plate.
- B. eat only the food on the left side of her plate as she doesn't see the other half.
- C. have damage to her right eye.
- D. have damage to her left occipital lobe.

Use the following information to answer Questions 24–26.

Francesca was trying to memorise her friend Sara's mobile number as Sara recited it.

Question 24

In terms of the Atkinson–Shiffrin model Francesca would

- A. retain the whole number in STM (short-term memory) as Sara recited it, and then easily transfer it to LTM (long-term memory).
- B. need to use chunking if she wanted to retain the whole number in STM.
- C. need to use her phonological loop to store the auditory information.
- D. need to use her iconic memory if she wanted to store the information permanently.

Question 25

In terms of the serial position effect it is likely that later Francesca would

- A. recall the middle of the number but not the beginning and the end.
- B. recall more of the end than the middle or beginning of the number.
- C. recall more of the beginning and some of the end of the number.
- D. recall the beginning and the middle but not the end of the number.

Question 26

The next time Sara told Francesca her number, Francesca found it easier to recall the whole number. This can be seen as evidence of the relative sensitivity of

- A. relearning.
- B. recall.
- C. recognition.
- D. the recency effect.

Question 27

Dion had a fight with his girlfriend when they were at the movies. This was serious enough to cause them to break up. Now whenever Dion walks past the movie theatre he feels really sad. This can **best** be explained in terms of

- A. cued recall.
- B. a state-dependent cue.
- C. a context-dependent cue.
- D. a mnemonic.

Question 28

The key finding of the studies by Elizabeth Loftus and others into the reliability of eyewitness testimony was

- A. if eyewitnesses are not given misleading information, their testimony is likely to be very reliable.
- B. misleading information given to eyewitnesses during questioning can cause them to give incorrect information although they may believe it to be true.
- C. misleading information given to eyewitnesses during questioning will result in false memories.
- D. eyewitnesses' testimony is always unreliable.

SECTION A – continued
TURN OVER

Use the following information to answer Questions 29–31.

Margot is a healthy 75-year-old who still enjoys driving and has an unblemished driving record. But, when driving to visit her old friend Brian, she had difficulty remembering the address that she needed to go to, and mistakenly drove to the house he lived in 30 years ago rather than his current address.

Question 29

Margot's ability to drive without incident is an example of her _____ in use.

- A. episodic memory
- B. procedural memory
- C. declarative memory
- D. semantic memory

Question 30

Margot's difficulty with remembering Brian's current address, instead driving to the old address, is an example of

- A. retrograde amnesia.
- B. anterograde amnesia.
- C. retroactive interference.
- D. proactive interference.

Question 31

The scenario described above represents one of the criticisms of decay theory because

- A. it can't account for Margot's ability to drive competently.
- B. semantic memories are the most likely to be lost over time, not procedural.
- C. it can't account for Margot's ability to recall Brian's old address even though she hadn't been there for 30 years.
- D. it is evidence that she most likely repressed the current address.

Question 32

Which of the following would be the result if the terminal buttons at the end of an axon were inhibited from releasing neurotransmitters?

- A. The electrical impulse would not be sent to the next neuron across the synapse.
- B. The post-synaptic neuron would not be activated.
- C. The dendrites would not be able to transmit the message to the next neuron.
- D. The electrical impulse would not travel down the length of the axon of the pre-synaptic neuron.

Question 33

Max is a healthy two-year-old who loves to play ball with his father. When his father shows Max how to kick a football, Max immediately attempts to imitate the behaviour. Neurologically, this can be best explained in terms of

- A. developmental plasticity.
- B. adaptive plasticity.
- C. observational learning.
- D. operant conditioning.

Question 34

Tayla is in Prep and, while she has learned to read many simple books, she at times struggles with unfamiliar words. The role of the hippocampus in assisting her to learn the new words is

- A. in helping her to move the physical structures needed when she sounds out the words.
- B. in allowing her to process the visual information shown on the pages of the book.
- C. in helping her to evaluate which reading strategies would be the best to use.
- D. in allowing her to draw on existing knowledge to help her understand the new words.

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Question 35

In order for newly learned declarative information to be permanently stored it must be consolidated within the

- A. amygdala.
- B. hippocampus.
- C. autonomic nervous system.
- D. synapse.

Question 36

Parveshni was watching the news when images of the results of a hail storm were shown. This reminded her of a hail storm she had experienced last year, and then she was further reminded of other storms she had witnessed in the past. This triggering of like memories can best be explained in terms of

- A. state-dependent cues.
- B. narrative chaining.
- C. flooding.
- D. the semantic network theory.

Question 37

An autopsy of the brain of a person who had suffered from Alzheimer's disease would be likely to show neurofibrillary tangles. These are evidenced by

- A. an abnormally high level of proteins built up within neurons.
- B. shrinkage in the hippocampus.
- C. retrograde amnesia.
- D. anterograde amnesia.

Use the following information to answer Questions 38–43.

In a study to further explore the findings of Craik and Lockhart's work on levels of processing, a researcher conducted an experiment to determine the effectiveness of using phonemic versus semantic encoding in memory tasks.

A sample of participants was selected from first-year Psychology students at university. The students were advised that their participation was voluntary and those who elected to take part were given a document, fully outlining the purpose and procedure of the study, which they were asked to sign if they wished to continue. They were also advised that their names would not be used in the report of the experiment.

In Condition 1, the participants were given a list of 20 words which they were required to memorise by creating a single rhyming word to match each word on the list. In Condition 2 they were given a different list of 20 words which they were required to memorise by making up a series of stories using the words.

Question 38

The experimental design used in this study was

- A. independent groups design.
- B. between participants design.
- C. matched participants design.
- D. repeated measures design.

Question 39

Based on the findings of Craik and Lockhart, it would be expected that

- A. the scores in Condition 1 would be much the same as in Condition 2 when the participants were tested on recall of the words.
- B. the scores in Condition 1 would be better than those in Condition 2 when the participants were tested on recall of the words.
- C. the scores in Condition 2 would be better than those in Condition 1 when the participants were tested on recall of the words.
- D. there would be no difference between the scores in Condition 1 and Condition 2 when the participants were tested on recall of the words.

Question 40

Which of the following **most** correctly describes the likely findings of this experiment?

- A. Maintenance rehearsal allowed a deeper level of processing in this procedure thus improving recall.
- B. Elaborative rehearsal allowed a deeper level of processing in this procedure thus improving recall.
- C. Two different forms of elaborative rehearsal were used which allowed a deeper level of processing in this procedure thus improving recall.
- D. Two different forms of maintenance rehearsal were used which allowed a deeper level of processing in this procedure thus improving recall.

Question 41

The method of learning the words applied in Condition 2 was

- A. a mnemonic known as narrative chaining.
- B. a mnemonic known as an acrostic.
- C. a mnemonic known as an acronym.
- D. a mnemonic known as primacy.

Question 42

The sampling procedure used in this experiment can best be described as

- A. random.
- B. convenience.
- C. stratified.
- D. random allocation.

Question 43

Which of the following ethical considerations is **not** described in the scenario above?

- A. withdrawal rights
- B. informed consent
- C. voluntary participation
- D. confidentiality

Question 44

A researcher stated that the result of an experiment 'was found to be statistically significant at the 0.05 level'. This means

- A. there was a strong positive correlation between one participant-related variable and the dependent variable.
- B. the result is definitely due to the impact of the IV (independent variable) on the DV (dependent variable).
- C. the probability of the result being due to chance is 95% or less.
- D. the probability of the result being due to chance is 5% or less.

Question 45

William was the father of a newborn baby. When he held the infant's hand she immediately gripped his index finger. This gripping response is an example of

- A. a voluntary behaviour that is reflexive in nature.
- B. an involuntary reflex response.
- C. learned behaviour that is due to maturation.
- D. a fixed action pattern (FAP).

Question 46

As the brain develops and we learn from our environment, there is an increase in the number of neural connections between the two hemispheres of the brain. This takes place in

- A. the cerebellum.
- B. the amygdala.
- C. the corpus callosum.
- D. the hippocampus.

Question 47

Anita was very afraid of dogs and her psychologist suggested she spend a day in the lost dogs' home, while experiencing relaxation therapy, to overcome this fear. This treatment is an example of the process known as

- A. aversion therapy.
- B. flooding.
- C. classical conditioning.
- D. graduated exposure.

Question 48

Initially Anita felt great anxiety when entering the lost dogs' home. In terms of the transactional model of stress and coping she was

- A. experiencing a threatening situation.
- B. experiencing a benign-positive situation.
- C. experiencing the fight-flight response.
- D. experiencing extreme stress.

Question 49

Anita noticed that the employees of the dogs' home showed no fear of the dogs at all. In terms of the transactional model of stress and coping this would likely be because

- A. the workers had not experienced an unpleasant event associated with dogs in the past so had not associated dogs with a fear response, thus had never learned to fear them.
- B. they were rewarded for their work through their wages so their calm response to the dogs was reinforced by this positive stimulus.
- C. they applied a positive cognitive appraisal to their work in the animal welfare facility.
- D. the workers had applied the process of shaping to remove any fear they may have had.

Use the following information to answer Questions 50–53.

In 1920 John B. Watson carried out a classical conditioning experiment with a baby known as ‘Little Albert’ to determine if a fear response could be conditioned. Initially the child showed no fear when allowed to play with a white laboratory rat, but developed a fear of the rat, and other white fluffy objects, when these were paired with a loud, frightening noise. The once placid child became quite anxious as a result of this experiment and his mother ultimately removed him from the study.

Question 50

In the acquisition phase of this experiment the rat was initially the

- A. conditioned stimulus (CS).
- B. neutral stimulus (NS).
- C. conditioned response (CR).
- D. unconditioned response (UCR).

Question 51

In terms of classical conditioning, in order for the fear response to be acquired

- A. the loud noise would have to occur prior to presentation of the rat.
- B. Little Albert would have had to be punished for touching the white rat.
- C. the loud noise would have to immediately follow, or coincide with, the presentation of the rat.
- D. there would need to be a delay of five seconds between presentation of the rat and the loud noise.

Question 52

Which of the following was the most important breach of an ethical consideration by this experiment?

- A. not providing debriefing
- B. causing psychological harm to the participant
- C. not providing informed consent
- D. denying the right of withdrawal

Question 53

When later Little Albert demonstrated fear of other white fluffy objects he was demonstrating

- A. stimulus discrimination.
- B. spontaneous recovery.
- C. acquisition.
- D. stimulus generalisation.

Question 54

Marina was trying to learn how to knit a scarf but found that she was making mistakes. Each time she made a mistake she undid her work and started again. Eventually Marina was able to knit the scarf and proudly wore it to school. The type of learning described is

- A. observational learning.
- B. trial and error learning.
- C. operant conditioning.
- D. classical conditioning.

Question 55

Nathan is in the habit of dropping his school bag at the door as he comes home from school. His father frequently trips over the bag which makes him very annoyed. In order to break Nathan of this habit his father takes away Nathan's phone for one hour each time he sees the bag at the door.

In terms of operant conditioning, being deprived of the mobile phone for an hour can best be described as

- A. response cost.
- B. negative reinforcement.
- C. positive reinforcement.
- D. punishment.

Question 56

By depriving Nathan of his phone for one hour every time his father sees the bag at the door, Nathan's father is applying

- A. continuous reinforcement.
- B. partial reinforcement.
- C. a fixed interval schedule of reinforcement.
- D. none of the above.

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Question 57

Which of the following statements about the classification and diagnosis of mental disorders using the *Diagnostic and Statistical Manual V* (DSM-V) and the *International Classification of Diseases 10* (ICD-10) is **incorrect**?

- A. Although the DSM-V is a descriptive tool it does not describe causes of mental illness.
- B. Both the ICD-10 and the DSM-V are used to diagnose mental illness.
- C. ICD-10 can be used to determine the cause of a mental illness, whereas DSM-V cannot.
- D. ICD-10 is used for diagnosing a wider range of health problems than DSM-V.

Question 58

Which of the following is **not** likely to be used in a clinical interview when a clinician is assessing whether or not a patient presents with symptoms of a mental disorder?

- A. assessment of personality
- B. assessment of intelligence
- C. cognitive assessment
- D. neuropsychological assessment

SECTION A – continued
TURN OVER

Use the following information to answer Questions 59–63

Davina was a normally healthy 16-year-old who had been experiencing a range of stressors over time. These included bullying incidents at school, the death of her grandmother and breaking up with her boyfriend. Davina reported a deepening sense of sadness and disconnection from her schoolfriends after some time had passed without the stressful situations being resolved.

Question 59

According to the biopsychosocial model Davina's condition had a _____ basis.

- A. physiological
- B. psychological
- C. biological
- D. social

Question 60

Davina was prescribed an antidepressant and was provided with counselling to help her cope with the stressors. In terms of the biopsychosocial model, these interventions were _____ and _____ respectively.

- A. biological, psychological
- B. biological, social
- C. psychological, social
- D. psychological, biological

Question 61

Davina's perception of the events caused her to feel stress. This triggered a physiological response where her autonomic nervous system adapted to the stressors. This adaptation is known as

- A. the fight-flight response.
- B. homeostasis.
- C. sympathetic arousal.
- D. allostasis.

Question 62

Davina's inability to cope with the stressors created the depressive response. This would suggest that she was experiencing

- A. allostatic load.
- B. allostatic overload.
- C. the fight-flight response.
- D. homeostasis.

Question 63

Davina's psychologist helped her to learn how to lower her stress levels using biofeedback. This means that

- A. the psychologist connected her to devices that would measure physiological responses such as heart rate and respiration, and encouraged her to relax her body and to note how the physiological measurements responded to the relaxation.
- B. the psychologist connected her to devices that would measure psychological responses such as anxiety levels, and encouraged her to relax her body and to note how the physiological measurements responded to the relaxation.
- C. the psychologist helped her to learn how her body responded to stress and provided feedback on her learning.
- D. the psychologist helped her to learn to relax so as to reduce her anxiety levels.

Question 64

Which of the following is a strength of the Transactional Model of Stress and Coping?

- A. it does not use cultural factors in assessing how individuals perceive a stressful event
- B. it takes a cognitive approach to assessing stress, as well as a physiological approach
- C. it relies more on the physiological effects of stress than other models
- D. it uses animal subjects in developing the model

Question 65

Alleah performed poorly on her Maths SAC, so determined that she would spend more time studying and attempting practice exercises before the next SAC. In terms of the Lazarus and Folkman Transactional Model of Stress and Coping, this is an example of

- A. a primary appraisal.
- B. an emotional forecast.
- C. problem-focused coping.
- D. emotion-focused coping.

**END OF SECTION A
TURN OVER**

Section B – Short-answer questions

Instructions for Section B

Write **all** responses in the spaces provided, using a blue or black pen.

Question 1 (2 marks)

Jacob was involved in a road accident after having a few drinks at a party. His blood alcohol level was 0.08 when the police tested him.

In terms of two different perceptual distortions, explain why it was dangerous for Jacob to drive when in an alcohol-induced altered state of consciousness.

Question 2 (6 marks)

In a study to determine if sleep deprivation would affect problem-solving ability, the participants were allowed to sleep for just two hours on the night before sitting a problem-solving test. Another group who were given the same task at the same time as the sleep-deprived group were allowed to sleep normally before the test.

- a.** Describe how the sleep-deprived group would be likely to perform when tested on both simple and complex problem-solving tasks.

2 marks

- b.** Describe the pattern of sleep, in terms of REM sleep, that the deprived group would likely experience on the following night.

1 mark

- c.** What was the purpose of having a group that was not sleep deprived take part in the study?

2 marks

- d.** Identify the main advantage of this form of experimental design.

1 mark

SECTION B – continued
TURN OVER

Question 3 (4 marks)

Gianna was listening to a news item on the radio while her sister was trying to tell her about her day at school. Gianna became annoyed as she couldn't focus on the news.

- a. Explain Gianna's inability to focus on both her sister and the news in terms of Baddeley and Hitch's model of working memory.

2 marks

- b. In terms of the Baddeley and Hitch model, describe a way that Gianna would have been able to take in both pieces of information at once.

2 marks

Question 4 (2 marks)

Brianna is frequently criticised by her mother for not getting up early enough in the morning. Her mother says that if Brianna just went to bed earlier she would have no trouble getting up. Identify possible explanations for Brianna's situation, by describing **two** ways in which the adolescent sleep/wake cycle differs to that of a normal adult.

Question 5 (5 marks)

Freya wanted to learn how to play tennis so that she could become part of the local tennis club. She arranged lessons and carefully followed her coach's instructions to help her master the game.

Using the language of observational learning, explain how the **five** processes of observational learning are applied while Freya is learning to play tennis.

SECTION B – continued
TURN OVER

Question 6 (6 marks)

Lawrence is a keen athlete with ambitions for elite status. He is currently preparing for the state finals of his sport and knows that his performance will decide whether or not he is likely to be picked for the nationals, and then ultimately Olympic qualifying trials. This places Lawrence under a considerable amount of stress.

- a. Identify **two** physiological responses that Lawrence’s autonomic nervous system would be likely to initiate as a result of this stress. 2 marks

- b. What is the name of the branch of the autonomic nervous system that is responsible for these responses? 1 mark

- c. Lawrence has been advised that he must learn to control his stress levels. Describe the likely physiological result of long-term arousal if Lawrence is unable to do so. In your answer refer to the activity of the brain and other internal organs of the body that are involved in autonomic arousal. 3 marks

Question 7 (2 marks)

Christian was born with abnormalities in both of his temporal lobes. Identify **two** possible impairments if the temporal lobes are damaged.

Question 8 (4 marks)

David describes himself as a 'right-brained person'.

- a.** Identify **two** activities in which David is likely to excel if he is right-brain dominant.

2 marks

- b.** Explain why it is incorrect to say someone is left- or right-brained.

2 marks

SECTION B – continued
TURN OVER

Question 9 (2 marks)

Explain the differences between the activities of the primary cortices and those of the association areas.

Question 10 (3 marks)

Describe any similarities and differences in duration and capacity between the iconic and echoic memory stores in the Atkinson–Shiffrin model.

Question 11 (2 marks)

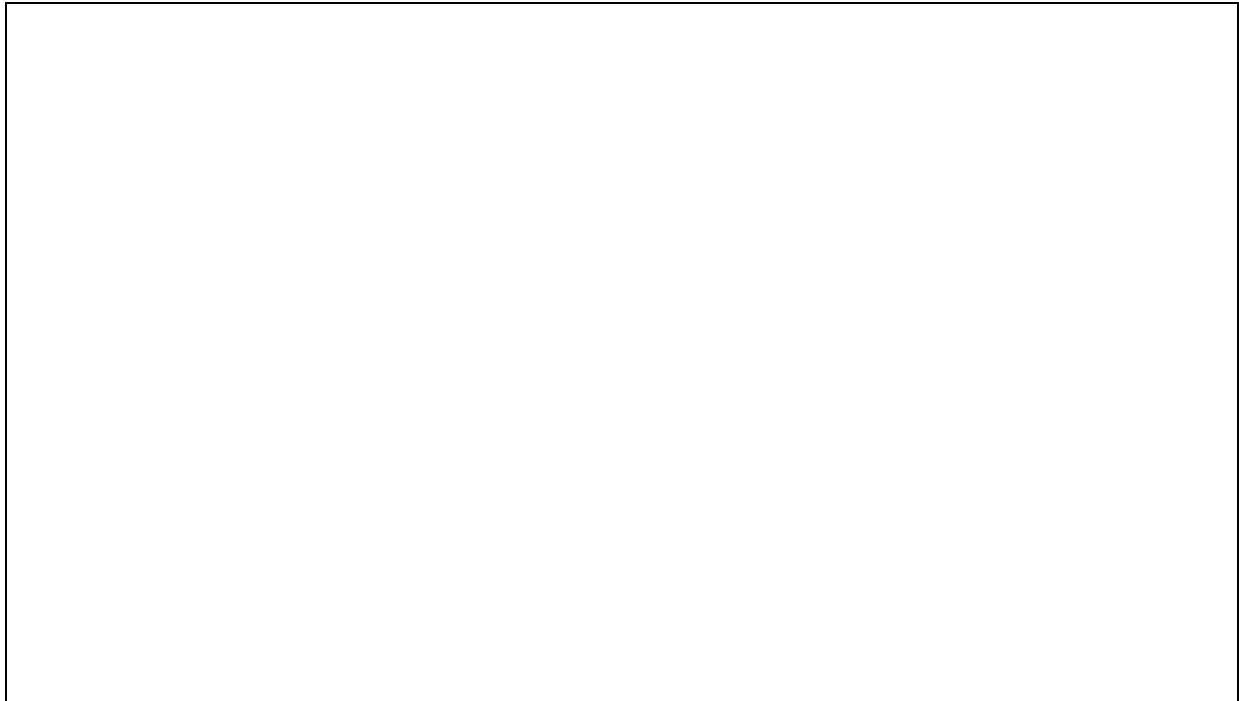
Explain the key pieces of information portrayed in a graph showing the Ebbinghaus forgetting curve?

SECTION B – continued
TURN OVER

Question 12 (4 marks)

- a. In the box below, draw a diagram depicting a semantic network for motor vehicles.

2 marks



- b. Explain how the organisation of the networks assists recall.

2 marks

Question 13 (4 marks)

Explain the difference between positive and negative reinforcement in operant conditioning. Provide an example of each to illustrate this difference.

SECTION B – continued
TURN OVER

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Question 14 (3 marks)

Alessio loves playing the poker machines. He finds it very difficult to drag himself away each night until he has run out of money. In terms of schedules of reinforcement, explain why Alessio is behaving in this way.

Question 15 (1 mark)

The process of shaping in operant conditioning is also known as:

SECTION B – continued
TURN OVER

Question 16 (6 marks)

Michael wants to be a research scientist and has dreams of forging new pathways in science, and maybe even winning a Nobel Prize. He has always been a very driven person, who studied continuously at school and expected to receive top marks in all of his studies, becoming very distressed if he did not. He is now in his Honours year at university and has been working very hard towards achieving his degree as he wants to progress into a Masters program.

During the year Michael’s younger brother was diagnosed with a serious illness, and his mother lost her job due to restructuring at her workplace. These events caused a great deal of stress within the family, culminating in the separation of Michael’s parents. Michael started to develop hives on his body and became nauseous when attempting to complete his university work. Michael’s doctor has advised him to see a psychologist to help him find strategies to cope with the stress.

- a. Explain Michael’s current condition in terms of the biopsychosocial framework.

3 marks

- b. Identify a psychological intervention that could be used to assist Michael.

1 mark

c. Describe a biological intervention that could be used to assist Michael.

1 mark

d. Identify a social support that could be used to help Michael and/or his family.

1 mark

SECTION B – continued
TURN OVER

Question 17 (1 mark)

Explain the concept of eustress.

Question 18 (3 marks)

Explain the role of perception in the physical experience of allostatic overload.

Section C – Research scenario**Instructions for Section C**

Answer the question in the space provided, using a blue or black pen.

Your response may include diagrams, charts and tables.

Dr Saffron was interested in whether the effects of using different methods of instruction would have a significant effect on the ability of senior secondary students to learn key concepts. She conducted a series of research exercises to determine if the application of thinking routines that required students to deeply analyse the key terms related to a specific area of study would be more effective than routines that required students to rote learn the definitions of the key terms.

Dr Saffron approached a range of independent and state schools in Melbourne and recruited teachers prepared to take part in the research. Those teachers then sought the permission of their students' parents to use their children in the research. Students permitted to take part were then randomly allocated by their school to one of two groups.

Group 1 was required to rote learn a list of 20 definitions related to the area of study, while students in Group 2 were taught the material using thinking routines that encouraged them to analyse the content of the study and then create concept maps to show how this material related to their previous learning. The testing was conducted over a period of two weeks and involved 120 students, 60 in each group.

Following testing of the two different groups on their understanding of the material studied, Dr Saffron collated and statistically analysed the results. While there was some apparent benefit in using the thinking routine method, the difference between group scores, with a p value of .06, was not large enough to be considered statistically significant.

Question 1 (1 mark)

Describe a method that the schools could use to ensure that the students were randomly allocated to each group.

SECTION C – continued
TURN OVER

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Question 2 (2 marks)

In terms of psychological research methodology, explain why the research described can be classified as an experiment.

Question 3 (2 marks)

Explain why the researcher needed to obtain parental consent and how this process should be conducted.

SECTION C – continued
TURN OVER

Question 4 (10 marks)

You are required to write a possible introduction and an appropriate discussion for the study described.

Your response should include

- a research hypothesis
- an operationalised IV and DV
- an explanation of an appropriate theory of memory
- a discussion of at least one extraneous variable
- an analysis of an alternative research design that may have been used
- a conclusion and possible generalisation.
