INSIGHT

YEAR 12 *Trial Exam Paper*

2013

PSYCHOLOGY

Written examination

STUDENT NAME:

Reading time: 15 minutes

Writing time: 2 hours 30 minutes

QUESTION AND ANSWER BOOK

Structure of book

Section	*Number of questions*	*Number of questions to be answered*	*Number of marks*
A	65	65	65
B	16	16	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 35 pages and an answer sheet for the multiple-choice questions.

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 multiple-choice questions inside the front cover of this book.

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

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 given if more than one response is given for any question.

Question 1

Gareth had studied hard for his end-of-year examinations and felt confident. As he waited to go into the Psychology examination, he sat in the sun and allowed his thoughts to drift. He thought about the car that he wanted to buy, about his girlfriend and then fantasised about receiving a perfect ATAR score. At this point, Gareth's state of consciousness can **best** be described as

A. focused selective attention that occurs in an ASC.
B. focused selective attention that occurs in NWC.
C. daydreaming that occurs in an ASC.
D. daydreaming that occurs in NWC.

Question 2

In terms of content limitations, what were Gareth's thought processes likely to be while waiting to go into the examination, compared with when he was sitting for the examination?

A. less restricted, less logical
B. less restricted, more logical
C. more restricted, less logical
D. more restricted, more logical

Question 3

After the examination, Gareth drove home. As he was still on his learner's permit and not a particularly experienced driver, as he drove it was likely that he was using:

A. automatic processes and divided attention
B. controlled processes and divided attention
C. automatic processes and selective attention
D. controlled processes and selective attention

Question 4

Felicia was woken suddenly from a deep sleep when her phone rang. Although she could hear the caller, at first she had great difficulty understanding what the caller was saying. Felicia's difficult in understanding is an example of

A. impaired emotional awareness.
B. impaired perception.
C. impaired cognition.
D. impaired time orientation.

Use the following information to answer Questions 5–7.

Dr Usher conducted a study into the effects of alcohol on the nervous system. She sampled 50 first-year university students and administered 500 mL of wine within one hour to 25 of the students, before testing their reaction time to a red light while they were operating a driving simulator. The other 25 students were also tested, but were provided with 500 mL of water to drink within one hour.

Question 5

The likely result of this study would be that

A. students who ingested the alcohol would experience slower reaction times on a driving simulator.
B. students who ingested the water would experience slower reaction times on a driving simulator.
C. students who ingested the alcohol would likely be more inhibited and make more mistakes on the driving simulator than those who ingested the water.
D. both A and C.

Question 6

The operationalised dependent variable in this study is

A. the reaction time.
B. the reaction time to the red light on the driving simulator.
C. the administering of 500 mL of alcohol to 25 of the participants within one hour.
D. whether the participants received alcohol or water.

Question 7

The experimental design used in this study is

A. matched pairs.
B. independent groups.
C. repeated measures.
D. stratified sampling.

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Question 8

Marcus is a researcher in a sleep laboratory. He regularly observes patients through video monitoring. Which of the following is **not** an advantage of this form of observation?

A. The recordings can be shown to the patient to help them understand their behaviour.
B. Continuous monitoring of patient behaviour is possible during sleep.
C. The data may be open to interpretation and thus be subjective.
D. Behavioural data can be matched to physiological data.

Question 9

Marcus collects data using the electro-oculargraph. This involves

A. measuring the electrical activity of the muscles.
B. measuring the electrical activity of the brain.
C. measuring the skin's resistance to an electrical current.
D. measuring the electrical activity of the muscles that control the eyes.

Question 10

One possible negative side effect of being deprived of stages 3 and 4 NREM sleep is

A. reduced protein synthesis.
B. a reduction in the release of growth hormones.
C. fewer mood disturbances.
D. increased metabolic rate.

Question 11

One feature of the adolescent sleep/wake cycle is that

A. the onset of sleep is delayed.
B. the onset of sleep is earlier than in late childhood.
C. adolescents need less sleep than adults.
D. adolescents need around 12 hours of sleep per night.

Question 12

The major cognitive processing area of the brain is known as

A. the cerebral cortex.
B. the cerebellum.
C. the central nervous system.
D. the cortex.

Use the following information to answer Questions 13 and 14.

Kayne had worked a double shift after being at university all day and he was very tired as he drove home. He became quite drowsy and dropped off momentarily.

Question 13

It is likely that when Kayne was able to go to bed and sleep he would experience REM rebound. This is best described as:

A. difficulty falling into a deep sleep after sleep deprivation.
B. a longer amount of time than usual spent in REM sleep following sleep deprivation.
C. a shorter amount of time than usual spent in REM sleep following sleep deprivation.
D. a longer amount of time than usual spent in NREM sleep following sleep deprivation.

Question 14

Nodding off momentarily when driving is a response known as

A. REM sleep.
B. NREM sleep.
C. microsleep.
D. stage 1 sleep.

Question 15

Which of the following is not controlled by the autonomic nervous system?

A. glands, such as the pancreas and adrenal glands
B. the cardiovascular system
C. the respiratory system
D. the skeletal muscles

Question 16

Peta was walking home in the dark when her friend Jake jumped out in front of her. She immediately experienced the fight/flight response. Which of the following best describes the response of the peripheral nervous system to the fright?

A. The parasympathetic nervous system triggers the response when the threat is perceived.
B. The autonomic nervous system stimulates the response when the threat is perceived.
C. The sympathetic nervous system will stimulate the adrenal glands and the respiratory and cardiovascular systems to help meet the threat.
D. The parasympathetic nervous system will stimulate the adrenal glands and the respiratory and cardiovascular systems to help meet the threat.

Question 17

The anterior (front) of the cerebral cortex is separated from the posterior (rear) by the

A. cerebral hemispheres.
B. central fissure.
C. corpus callosum.
D. longitudinal fissure.

Question 18

How much of the cerebral cortex is covered by association areas?

A. one-quarter
B. half
C. one-third
D. three-quarters

Question 19

The primary motor cortex and the somatosensory cortex are adjacent to each other and form the boundary between the

A. temporal lobes and parietal lobes.
B. temporal lobes and occipital lobes.
C. frontal lobes and occipital lobes.
D. frontal lobes and parietal lobes.

Question 20

The association areas that are responsible for language are

A. usually located in the left hemisphere.
B. always located in the left hemisphere.
C. usually located in the right hemisphere.
D. always located in the right hemisphere.

Question 21

Thomas suffered a stroke and experienced paralysis of his limbs on his left side. This suggests that the damage caused by the stroke is centralised in the

A. right temporal lobe.
B. right frontal lobe.
C. left temporal lobe.
D. left frontal lobe.

Question 22

Yvette burnt her left hand on the stove. This sensation would be processed in the
A. left frontal lobe.
B. left parietal lobe.
C. right frontal lobe.
D. right parietal lobe.

Question 23

Jamal was hit in the head by a cricket ball and suffered damage to the primary visual cortex and association areas of the left occipital lobe. This would most likely result in
A. sensory information from the right visual field no longer being transmitted to the left occipital lobe.
B. complete blindness in the right eye.
C. difficulty processing sensory information from the right visual field that is sent to the left occipital lobe.
D. difficulty recognising objects that are seen in the left visual field.

Question 24

Ursula sustained a head injury and was then unable to coordinate the muscles of the mouth and throat to produce recognisable language. Which of the following correctly states the type of aphasia experienced by Ursula, and the lobe that is likely to be damaged?
A. Broca's, left frontal
B. Wernicke's, left temporal
C. Broca's, left temporal
D. Wernicke's, left frontal

Question 25

Harry was meant to be completing a set of exercises in a mathematics class but he couldn't concentrate as he was imagining how cool it would be to be a rock star. In terms of hemispheric specialisation, which of the following would be the dominant hemisphere as Harry switched from maths to imagination?
A. right then right
B. right then left
C. left then left
D. left then right

Use the information provided below to answer Questions 26 and 27.

Lorena suffered a stroke and, as a result, is now unable to recognise the existence of objects that are placed on her left side. Her neurologist decided to use neural imaging to assess the location and level of brain activity when an image is shown in the left visual field, as opposed to brain activity when an image is shown in the right visual field.

Question 26

This condition is commonly known as
A. Wernicke's aphasia.
B. Broca's aphasia.
C. anosognosia.
D. spatial neglect.

Question 27

It is most likely that Lorena has suffered damage to the
A. posterior region of the right temporal lobe.
B. posterior region of the right parietal lobe.
C. anterior region of the left parietal lobe.
D. anterior region of the left temporal lobe.

Question 28

Which of the following is not one of the benefits of sleep, according to the restorative theory?
A. Sleep allows the level of the neurotransmitter adenosine to be reduced.
B. Sleep conserves energy.
C. Sleep increases immunity to disease.
D. Sleep repairs and replenishes the body.

Question 29

Which of the following is a correct statement about the findings of Hermann Ebbinghaus and the forgetting curve?
A. The rate of forgetting is affected by the complexity of the material that is learned.
B. More than 70 per cent of the material is forgotten within the first hour.
C. The beginning of the forgetting curve has the steepest slope.
D. The intelligence of the learner will affect the rate of forgetting.

CONTINUES OVER PAGE

Question 30

Freda suffered a head injury and could no longer store new memories. This is an example of

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

Question 31

Lauren loved pizza. One night she became really sick after eating pizza. Now, she feels sick at the thought of eating pizza. This is an example of

A. trial-and-error learning.
B. operant conditioning.
C. negative reinforcement.
D. one-trial learning.

Question 32

In Skinner's theory of operant conditioning, the discriminative stimulus is

A. the consequence of behaviour.
B. the environment that makes conditions right for a response to occur.
C. the desired response.
D. voluntary behaviour.

Question 33

Padraig was trying to remember a mobile phone number, so he put the numerals into small groups to make them easier to recall. This is an example of

A. chunking to increase the capacity of short-term memory.
B. a mnemonic to increase the capacity of short-term memory.
C. chunking to increase the duration of short-term memory.
D. a mnemonic to increase the duration of short-term memory.

Question 34

In Baddeley and Hitch's model of working memory (1975), the role of the episodic buffer is to

A. retain an entire sentence in working memory so that we can give it meaning.
B. retrieve information from long-term memory to give meaning to information in working memory.
C. store visual information.
D. coordinate the sounds and images that are in working memory to create meaning.

Use the information below to answer Questions 35–38.

In a study designed to examine the findings of Craik and Lockhart (1972), researchers asked 75 participants, randomly selected from a class of first-year law students, to memorise a list of 30 words using shallow, moderate or deep processing.
Each participant was presented with the same list of words, divided into groups of 10 words. They were then asked to memorise the first group of 10 words using shallow processing, the second group of 10 words using moderate processing, and the third group of 10 words using deep processing.

Question 35

For the second group of 10 words, the participants were required to use moderate processing, using a method that was prescribed by the researchers. Which of the following statements would most likely represent the type of task that they were asked to do?

A. The participants were asked to remember the words according to whether they were long or short words.
B. The participants were asked to remember the words according to whether they were written in upper or lower case.
C. The participants were asked to place each word in a sentence that would accurately reflect the meaning of the word.
D. The participants were asked to place the list of words into subgroups according to how they sounded.

Question 36

In asking the participants to remember some of the words according to how they sounded, it is likely that

A. approximately 50 per cent of those words would later be recalled.
B. approximately 20 per cent of those words would later be recalled.
C. approximately 10 per cent of those words would later be recalled.
D. approximately 5 per cent of those words would later be recalled.

Question 37

The main advantage of the type of experimental design that is employed in the study is that

A. possible participant-related extraneous variables are eliminated.
B. order effects are more likely to occur.
C. the variable on which the participants are matched will not influence the dependent variable as the effect will be the same for each group.
D. the procedure can be done at once and it is less likely that the participants will withdraw from the study midway.

Question 38

A double-blind procedure would be of no benefit in this situation as

A. researchers need to know who is in which group, experimental or control.
B. the experimenter effect is unlikely in this design.
C. neither the placebo effect nor the experimenter effect are likely to occur in this form of experiment.
D. there are no experimental or control conditions.

Question 39

Bai was trying to remember where his friend's new flat was. He rode his bicycle up and down several streets before he recognised the building. To ride his bicycle, Bai was relying on

A. procedural memory.
B. eidetic memory.
C. declarative memory.
D. episodic memory.

Question 40

When Bai recognised his friend's building, he was relying on

A. procedural memory.
B. iconic memory.
C. declarative memory.
D. echoic memory.

Question 41

As Adriana lay on the beach, she watched a seagull flying overhead. This reminded her of a trip to Phillip Island with her family, when they had been swooped by seagulls, and how much she hated the seagulls for harassing her family as they tried to eat their fish and chips. This consecutive triggering of memories is best explained using the

A. consolidation theory of memory.
B. semantic network theory of memory.
C. Atkinson–Shiffrin model of memory.
D. multi-store model of memory.

Question 42

Neurotransmitters are

A. chemicals secreted by terminal buttons at the end of each axon.
B. chemicals secreted by terminal buttons at the end of each dendrite.
C. chemicals secreted by synapses at the end of each axon.
D. chemicals secreted by synapses at the end of each dendrite.

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Question 43

Long-term potentiation is

A. the increased potential for neurons to fire in the absence of specific neurotransmitters.

B. the potential for an animal to have a greater learning capacity if they have a larger the cerebral cortex.

C. the greater potential for neurons to fire when there is repeated stimulation of the neural pathways of connected neurons.

D. the greater potential for learning in humans when information is presented more than once.

Question 44

Consolidation of long-term declarative, or explicit, memories is believed to occur in the

A. cerebellum.

B. basal ganglia.

C. frontal lobes.

D. hippocampus.

Use the information below to answer Questions 45–48.

Joan is a healthy 75-year-old who lives with her husband, Neil, aged 79, who has some early signs of dementia. Joan enjoys a variety of stimulating activities and has just enrolled in a course in English literature at her local university. Neil tends not to engage with the community anymore, preferring to stay at home and watch old movies on the television.

Question 45

Joan's class at university is predominantly made up of young people. The class was required to write a text analysis. They were also asked to write a short piece linking past events in their lives to events described in another of the texts being studied. It would be expected that

A. the younger students would find it much easier to complete the first task, but Joan would perform better on the second.
B. Joan would perform equally as well on each task as the younger students.
C. the younger students would perform better on both tasks than Joan.
D. Joan would perform equally as well on the first task as the younger students.

Question 46

The class was also required to learn and recite several of Shakespeare's sonnets. It would be expected that

A. Joan would find this type of task very easy as working memory tends to improve with age.
B. the younger students would find this task easier than Joan as it is a complex, working-memory task.
C. Joan would perform equally as well as the younger students because learning and reciting poems is a procedural task.
D. Joan would be likely to perform poorly as learning and reciting poems is an episodic task.

Question 47

Neil's tendency to remain at home and not engage with the community is likely to contribute to his memory loss because

A. the lack of stimulation will cause neurofibrillary tangles to form within his brain.
B. he is not being stimulated to form new memories, so he is likely to develop retrograde amnesia.
C. his isolation and lack of mental stimulation could lead to a lack of confidence and motivation to learn new things or undertake complex mental tasks.
D. his lack of physical activity could result in the loss of procedural memories.

Question 48

Neil's early signs of dementia may include symptoms such as

A. reduced prefrontal lobe function due to thiamine deficiency.
B. forgetfulness, especially of events in his younger years.
C. forgetfulness, especially of more recent events.
D. both anterograde and retrograde amnesia.

Question 49

The white, fatty substance that coats some axons as a form of protection against interference from the electrical activity of surrounding neurons is known as

A. glutamate.
B. grey matter.
C. myelin.
D. dopamine.

Question 50

In Ivan Pavlov's classical conditioning experiments, he trained dogs to salivate at the sound of a bell. Which of the alternatives below list the conditioned stimulus and the unconditioned stimulus in the correct order?

A. the meat powder, salivation
B. the bell, the meat powder
C. salivation, the bell
D. the meat powder, the bell

Question 51

The salivation was a/an _____ response and the dogs were _____ participants.

A. involuntary, passive
B. involuntary, active
C. voluntary, passive
D. voluntary, active

Question 52

Jack was operating a flying simulator and a green light appeared every time he managed to keep the plane on course for 30 seconds. As soon as he veered off course, the green light stopped, but if he remained straight and on course for another 30 seconds, the green light would flash again. In terms of schedules of reinforcement, the green light was

A. a fixed-interval reinforcer.
B. a fixed-ratio reinforcer.
C. a variable-interval reinforcer.
D. a variable-ratio reinforcer.

Question 53

Lori wanted to help her mother make curry puffs. She carefully watched how her mother folded the pastry and then tried to imitate her. At first her puffs looked a bit odd, but gradually, as she persevered, she became better at it.
In terms of observational learning, when Lori watched her mother she was demonstrating
A. reproduction.
B. retention.
C. motivation.
D. attention.

Use the following information to answer Questions 54–57.

Kalini had been unemployed for some time. She repeatedly applied for jobs, but was unsuccessful. Gradually, Kalini withdrew from her normal activities, and was eventually diagnosed with depression and treated with antidepressant medication.

Question 54

In terms of the biopsychosocial model, being unemployed meant that
A. psychological factors negatively impacted on social and biological factors.
B. social factors negatively impacted on psychological and biological factors.
C. biological factors negatively impacted on psychological factors.
D. biological factors negatively impacted on social factors.

Question 55

In terms of Lazarus and Folkman's Transactional Model of Stress and Coping, it is likely that
A. Kalini has interpreted her situation positively.
B. Kalini is in the primary appraisal stage of assessing the situation.
C. in the secondary appraisal stage, Kalini has determined that she cannot cope.
D. in the primary appraisal stage, Kalini has determined that she cannot cope.

Question 56

Kalini's situation suggests that she is experiencing
A. eustress.
B. stress.
C. homeostasis.
D. distress.

Question 57

Kalini was advised by her doctor to join a walking group and walk each day to aid in the alleviation of depressive symptoms. This is likely to be helpful as

A. physical exercise has been found to help the body reduce the stress hormone dopamine.
B. walking and social interaction are likely to increase the allostatic load, thus reducing her level of arousal.
C. physical exercise is an example of a biological approach to dealing with stress, while joining the walking group is an application of social support.
D. she will be fitter and, therefore, more able to flee when she experiences the fight/flight response.

Question 58

The fight/flight response is activated from

A. the amygdala via the thalamus.
B. the amygdala via the hypothalamus.
C. the cerebellum via the thalamus.
D. the hippocampus via the amygdala.

Question 59

A psychologist wanted to assess the level of stress that a client felt when confronted with various types of information. The psychologist may have decided to use the galvanic skin response (GSR) as an indicator because

A. it is a useful way of measuring increased perspiration, which may be a sign of increased stress.
B. it is a useful way of measuring increased heart rate, which may be a sign of increased stress.
C. it is a useful way of measuring increased resistance of the skin to an electrical current, which may be a sign of increased stress.
D. it is a useful way of measuring decreased resistance of the skin to an electrical current, which may be a sign of increased stress.

Question 60

Biofeedback is best described as

A. a process using observational learning to assist individuals to manage stress by becoming aware of and altering their physiological responses.
B. a process using operant conditioning to assist individuals to manage stress by becoming aware of and altering their physiological responses.
C. a process using observational learning to assist individuals to manage stress by becoming aware of and altering their psychological responses.
D. a process using operant conditioning to assist individuals to manage stress by becoming aware of and altering their psychological responses.

Question 61

A researcher who is interested in studying alertness is likely to use which of the following to measure brain activity?

A. the GSR
B. an electro-oculargraph
C. an electroencephalograph
D. an electrocardiograph

Use the following information to answer Questions 62–65.

A researcher followed a group of people from low socio-economic backgrounds, from pre-school to adulthood, collecting data in order to assess the effects of various life stressors on mental health.

Question 62

This type of study is known as

A. cross-sectional research.
B. longitudinal research.
C. a case study.
D. an experiment.

Question 63

The type of study described above is a form of

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

Question 64

A major weakness of this form of research is that

A. participant withdrawal throughout the research period is likely.
B. very expensive equipment is needed.
C. artificiality may create an extraneous variable.
D. progressive conditions are difficult to monitor.

Question 65

If self-report is used a lot in this type of study, the data is likely to be

A. nominal.
B. ordinal.
C. objective.
D. subjective.

END OF SECTION A

Section B – Short answer questions

Instructions for Section B

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

Question 1 (4 marks)

a. Explain the difference between partial and total sleep deprivation, as defined by sleep specialists.

2 marks

_____

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b. Identify one physiological and one psychological negative effect of total sleep deprivation.

2 marks

Physiological _____

Psychological _____

Question 2 (3 marks)

Describe the functions of the somatic nervous system using an example to illustrate how the functions interact with the central nervous system. In your answer, you should refer to the type of neurons that are involved in this interaction.

Question 3 (4 marks)

Explain the difference between allostasis and homeostasis. Provide an example of each term in your answer.

Question 4 (4 marks)

Tan has had split-brain surgery to treat severe epilepsy. In a test of changes to his cognitive processing abilities, he was shown a picture of an apple in his right visual field. Then Tan was instructed to close his eyes as a ball was placed in his left hand and describe what he was holding.

a. Is Tan likely to be able to verbally describe what he sees when the apple image is presented? Fully explain your response.

2 marks

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b. Explain a way in which Tan could describe the ball after it is placed in his left hand. Fully explain the reasoning used in your response.

2 marks

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Question 5 (7 marks)

Jacinta made a shopping list before going to the supermarket but then forgot to take it with her, so she had to remember what she needed when shopping.

a. In terms of the information processing theory of memory, how would Jacinta have been able to remember the items that she needed?

3 marks

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b. Explain how Jacinta could have used a mnemonic device to help her remember the items that she needed.

2 marks

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c. If Jacinta had simply recited the list to herself in an effort to remember the items on it, in terms of the serial position effect, how effective would this method of recall have been?

2 marks

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Question 6 (4 marks)

Brodie was playing a computer game while talking to his friend Oratzio at the same time. When Brodie's mother started speaking to him, he had to ask Oratzio to stop talking as he could not take in what his mother was saying as well as listen to his friend.

a. In terms of Baddeley and Hitch's model of working memory, explain why Brodie could play the game and listen to Oratzio at the same time.

3 marks

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b. Using this same model, explain why Brodie could not listen to both Oratzio and his mother at the same time.

1 mark

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Question 7 (3 marks)

Christian has studied Italian at school. He went to Italy on a holiday and, at first, thought he had forgotten most of the language. To his surprise, he found that after a relatively short time in Italy he was able to understand much of the language and could respond to people in Italian.

a. Fully explain this pattern of recall in terms of a measure of retention.

2 marks

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b. Christian also found that when reading a menu in a restaurant, he could generally understand what it said. Identify the measure of retention being used here.

1 mark

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Question 8 (1 mark)

Define the term 'motivated forgetting'.

1 mark

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Question 9 (4 marks)

a. Describe two ways in which a fixed action pattern differs from a simple reflex action.

2 marks

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b. Identify one way in which these two behaviours are the same.

1 mark

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c. Provide an example of a fixed action pattern.

1 mark

_____

Question 10 (5 marks)

Daksha was very afraid of dogs, and when her neighbour's German shepherd ran towards her, she immediately became very alarmed, and felt her heart begin to race and her breathing become more rapid.

a. What part of the nervous system triggered the response that was experienced by Daksha when the dog ran towards her?

1 mark

_____

b. Later, Daksha's neighbour showed her that when she told the dog to heel and sit, and then patted it for responding, the dog was no longer frightening. What form of learning was used to encourage the dog to heel and sit?

1 mark

_____

c. What part of the dog's brain is believed to be active in this form of learning?

1 mark

_____

d. Gradually, Daksha became less afraid of the dog as she understood how to make the dog settle down. Explain this learning in terms of brain plasticity.

2 marks

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Question 11 (2 marks)

Oscar is a lively three-year-old who repeatedly disobeys his mother when they are out. He runs away in the supermarket and refuses to hold her hand as they cross the road. One day, his mother told him that she would punish him when they got home. When they did get home several hours later, Oscar was given his lunch and then sent to the naughty corner for half an hour.
Explain two reasons why this punishment is unlikely to be very effective in changing Oscar's behaviour the next time he is out with his mother.

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Question 12 (4 marks)

Explain the difference between sensitive periods and critical periods in learning theory, using specific examples to illustrate each term.

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Question 13 (2 marks)

Rufus spent a fantastic day at Luna Park when he was very little. At the very end of his time there, Rufus was frightened by a drunk man, who abused him when Rufus bumped into him. Rufus had not thought about this for many years, but when he saw an advertisement for Luna Park on television, he felt that fear response again. As he experienced the fear response, the full memory of the drunken man's abuse returned. Explain the renewed fear response in terms of encoding specificity.

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Question 14 (4 marks)

a. Explain the key findings of the studies by Elizabeth Loftus into the reliability of eyewitness testimony.

2 marks

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b. Provide an example to demonstrate your understanding of the Loftus findings.

2 marks

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Question 15 (5 marks)

Explain the process of synapse formation during learning.

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Question 16 (4 marks)

John Watson's 'Little Albert' experiment would not be possible today due to its breach of current ethical principles.

a. The aim of this experiment was the first major breach. Explain this with reference to a specific ethical principal.

2 marks

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b. Identify two other current ethical principles that were breached in Watson's experiment.

2 marks

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END OF SECTION B

END OF SECTION B
TURN OVER

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 Curry is a psychologist interested in the effects of intensive study on memory formation and the impact of this on the hippocampus structure.
To investigate this, Dr Curry examined the magnetic resonance imaging (MRI) results of 20 eight-year-old Victorian schoolchildren who had been enrolled in an intensive science program for 12 months in addition to their standard school program, and compared these to scans of the brains of 20 eight-year-old Victorian children who had only been enrolled in standard school programs.
The two groups were matched on a range of variables that may impact upon educational outcomes, including socio-economic background, school starting age and exercise habits.
The results of Dr Curry's study indicated that the hippocampal area related to semantic memory formation was more developed in the intensive learning group than in the standard educational group. This result was significant, with a p value of 0.04.

Question 1 (2 marks)

What is the type of research design used and what is the main benefit of this design?

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Question 2 (1 mark)

What is a weakness of this experimental design?

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Question 3 (2 marks)

Identify two ethical considerations that Dr Curry would have to apply to this study.

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Question 4 (10 marks)

Construct a discussion containing

- the conclusion based on the hypothesis
- the implications of the conclusion for one theory of memory
- reference to the generalisability of the findings
- suggestions for ways in which the study could be improved.

END OF QUESTION AND ANSWER BOOK

Extra space for responses

Clearly number all responses in this space.