

INSIGHT

Trial Exam Paper

2007

PSYCHOLOGY

Written examination 2

Solutions book

This book presents:

- correct solutions
- explanatory notes
- mark allocations
- tips and guidelines

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General Tip

Before responding to any multiple choice question always:

- read the whole question thoroughly.
- carefully consider each alternative and eliminate the incorrect responses before selecting one as the correct response. If you can explain why the wrong answers are wrong, you will be more likely to select the correct answer.
- make sure you select the best response. Some responses may be half right and these can often trick you into selecting the wrong alternative.

SECTION A – Multiple-choice questions

AREA OF STUDY 1 – Memory

Question 1

Kristina was studying for her psychology exam and was reading the textbook, taking notes and then later testing herself. In the reading stage Kristina would have to _____ the information so that it could be transferred to long-term memory, and in the testing stage, she would have to _____ the information.

- A. store; encode
- B. **encode; retrieve**
- C. store; retrieve
- D. encode; store

Answer is B

Explanatory notes

- B is correct as the sensory information entering STM needs to be encoded so that it can be stored. Retrieval involves bringing stored information from long-term memory into short-term memory for use, and this would be necessary if Kristina was to test herself on her retention of previously stored information.
- A is incorrect because storage is the second stage of the process which occurs after encoding has taken place
- C is incorrect as storage of the information would occur in the second phase, and as previously noted, retrieval is correct.
- D is incorrect because storage is the process of retaining information in memory, while retrieval involves transferring information back into short-term memory for use.

Question 2

The capacity of sensory memory is described as being

- A. 0.3 to 3 seconds.
- B. seven plus or minus two.
- C. **unlimited.**
- D. limited by what we choose to attend to.

Answer is C

Explanatory notes

- C is correct because we are able to hold an unlimited amount of information in sensory memory for a very short time.
- A is incorrect because this refers to duration not capacity.
- B is incorrect because this describes the capacity of short term memory.
- D is incorrect because when we attend to sensory information we have begun to process it in STM.

Question 3

Melissa was fond of completing word puzzles. When completing crosswords she needed to read each clue and locate the information in memory before writing the correct response into the puzzle grid. When completing a word search however she would read the clue and then look for the word hidden in the puzzle. Finding the word for the crossword is an example of _____ while in the word search she also used _____.

- A. **recall; recognition**
- B. relearning; recall
- C. recognition; recall
- D. relearning; recognition

Answer is A

Explanatory notes

- A is correct because the clue acts as a retrieval cue therefore Melissa is using cued recall to complete the crossword. When completing the word search Melissa is likely to use the clue to recall the word, and then confirm this by locating the word in the puzzle using recognition.
- B is incorrect because relearning involves revising information previously learned.
- C is incorrect because recognition is used in the wordsearch while recall is used in the cross-word. The responses are in the wrong order.
- D is incorrect because relearning is not used in the activities described.

Question 4

The duration of iconic memory is

- A. approximately two-thirds of a second.
- B. approximately one second.
- C. approximately three seconds.
- D. **approximately one third of a second.**

Answer is D

Explanatory notes

- D is correct as iconic memory holds information for approximately .3 of a second.
- A and B are incorrect because these amounts of time are too high.
- C is incorrect because three seconds is the duration of echoic memory.

Question 5

Which of the following statements about sensory memory is **most correct**?

- A. Every stimulus that enters sensory memory is encoded and transferred to short-term memory.
- B. Sensory memory is the entry area of memory where sensory stimuli are manipulated to allow transfer to long-term memory.
- C. **Sensory memory receives information from specific sensory registers known as receptor cells.**
- D. The capacity of sensory memory is limited to seven, plus or minus two bits of information.

Answer is C

Explanatory notes

- C is correct because each of the senses have specific sensory registers that detect sensory information that is processed in sensory memory.
- A is incorrect because only that information that is attended to is transferred to STM.
- B is incorrect because information is not manipulated in sensory memory. This takes place in STM.
- D is incorrect because sensory memory has unlimited capacity. STM has the capacity of seven, plus or minus two bits of information.

Question 6

The capacity of short-term memory is increased by

- A. **chunking.**
- B. elaborative rehearsal.
- C. maintenance rehearsal.
- D. both B & C.

Answer is A

Explanatory notes

- A is correct as chunking is the process of taking several bits of information and combining them into one large bit, thus increasing the amount of information that STM can hold.
- B is incorrect because elaborative rehearsal is used to aid in the storage of information in LTM. It is related to duration not capacity.
- C is incorrect as maintenance rehearsal is also related to duration. It is a means of retaining information in STM for longer.
- D is incorrect as both B & C are incorrect.

Question 7

According to the consolidation theory the consolidation of information in LTM is

- A. **gradual.**
- B. instantaneous.
- C. vulnerable to disruption for up to one hour.
- D. vulnerable to disruption for up to two hours.

Answer is A

Explanatory notes

- A is correct as the consolidation process involves gradual change to the neurons in the brain and this physical change takes around thirty minutes to consolidate the memory in LTM.
- B is incorrect because the process does not occur in an instant, it is gradual.
- C is incorrect as the consolidation process is vulnerable to disruption in the first thirty minutes after learning has taken place.
- D is incorrect. See the explanation for C.

Question 8

Kimberley was thinking about a trip to the State Library and was planning how she would get there and what time she would have to leave home. According to the theory of working memory when Kimberley was planning her trip she was using the working memory subsystem known as

- A. the phonological loop.
- B. visuo-spatial sketchpad.
- C. **the central executive.**
- D. all of the above.

Answer is C

Explanatory notes

- C is correct because the mental manipulation of information from short-term and long-term memory takes place through the cognitive activity of the central executive. Planning, making decisions or thinking through possible alternatives involves the central executive.
- A is incorrect because the phonological loop (verbal working memory) is the sub-system of working memory that holds sounds or phonemes for a brief period until they are no longer needed. If the question referred to discussing the plans with someone, the verbal working memory would be used.
- B is incorrect because the visuo-spatial sketchpad (visual working memory) stores visual and spatial information. If the planning involved viewing a map, for example, to plan a route to take tomorrow, this sub-system would be used.
- D is incorrect as A & B are also incorrect.

Question 9

David's dog, Harry, was very old and in a lot of pain and had to be put down. David was then given a new dog whose name was Joe. David found that he often called out for Harry when he meant to call Joe. The inability to remember the new dog's name is an example of

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

Answer is D

Explanatory notes

- D is correct. When information that has been previously learned (first dog's name) interferes with the ability to lay down a new memory (new dog's name) it is known as proactive interference.
- A is incorrect as retrograde amnesia is memory loss for events prior to a brain injury. It relates to organic causes of forgetting and not to interference.
- B is incorrect as the term 'proactive amnesia' is not used in VCE psychology.
- C is incorrect as retroactive interference occurs when newly learned information interferes with the recall of previously learned information.

Question 10

Nerida learned a new song in her singing lesson. When she then attended her guitar lesson she learned another new song. Later when trying to practice the song from her singing lesson she found that she could only remember the second song learned in the guitar lesson. This is an example of

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

Answer is C

Explanatory notes

- C is correct as retroactive interference occurs when newly learned information (guitar lesson song) interferes with the recall of previously learned information (singing lesson song).
- A is incorrect as retrograde amnesia is memory loss for events prior to a brain injury. It relates to organic causes of forgetting and not to interference.
- B is incorrect as the term 'proactive amnesia' is not used in VCE psychology.
- D is incorrect. When information that has been previously learned interferes with the ability to lay down a new memory it is known as proactive interference.

Question 11

Which of the following is a **correct** statement about forgetting?

- A. **Information that is well-learned is less likely to be forgotten.**
- B. Information that is meaningful is more likely to be forgotten.
- C. Most forgetting occurs within the ten minutes after learning.
- D. Easily learned information is less likely to be forgotten.

Answer is A

Explanatory notes

- A is correct because well-learned information is likely to be well-encoded and the better the encoding the longer the information is retained.
- B is incorrect as the more meaningful the information the less likely it is that forgetting will occur.
- C is incorrect as most forgetting occurs within the first hour after learning.
- D is incorrect because the difficulty of the learned material is not a factor in forgetting. No matter how easy the information is to learn, if it is not well encoded, it is likely to be forgotten.

Question 12

Which of the following statements about motivated forgetting is **correct**?

- A. Motivated forgetting occurs when a brain injury prevents the recall of information about a traumatic event.
- B. Motivated forgetting occurs because of the unconscious repression of a memory about a traumatic event.**
- C. Motivated forgetting occurs when the wrong retrieval cue is used.
- D. Motivated forgetting occurs because anxiety associated with a traumatic event prevents proper encoding.

Answer is B

Explanatory notes

- B is correct. The theory of motivated forgetting states that if memories of events are painful or threatening the individual may be motivated to either consciously or unconsciously forget the event.
- A is incorrect because forgetting due to brain injury is an organic or physical cause of forgetting whereas motivated forgetting is due to psychological factors.
- C is incorrect as this is an explanation of retrieval failure theory not motivated forgetting.
- D is incorrect as anxiety prevents recall not the encoding of the memory.

Question 13

Which of the following is most likely an example of forgetting due to lack of consolidation?

- A. Perry is unable to recall the novels he read in Year Eleven but when he looks at the recommended reading list he has no difficulty selecting the correct novels.
- B. Lauren was trying to memorise a list of psychology definitions when a fight broke out in the library, just as she had finished reading through them. When Lauren tested herself later she could not recall any of the definitions.**
- C. Jennifer fell and was knocked unconscious. She was taken to hospital but when she regained consciousness she had no recollection of how she got to the hospital.
- D. Karl witnessed a fatal car accident and was deeply distressed by the event. When he was questioned by the police about the accident, he found he could not recall any of the details.

Answer is B

Explanatory notes

- B is correct. The fight interrupted the learning process thus interfering with the consolidation of the newly learned material.
- A is an example of forgetting due to retrieval failure. The list of novels acted as a retrieval cue.
- C refers to an organic cause of forgetting of information after a brain injury. This is anterograde amnesia.
- D is incorrect as this is an example of motivated forgetting. Recalling the accident would cause him to experience the distress of the accident again, so the information is repressed.

Question 14

Jaclyn had not ridden a bike for many years but found when she was given the opportunity she had no trouble remembering how to do it. This is an example of

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

Answer is C

Explanatory notes

- C is correct as procedural memory is the memory of how to perform specific actions such as riding a bike. These memories are very resistant to forgetting.
- A is incorrect as episodic memory is the memory of specific events from a person's life.
- B is incorrect as semantic memory is the memory of information about the world.
- D is incorrect as declarative memory is a part of LTM that is subdivided into semantic and episodic memory.

Question 15

Which of the following is an **incorrect** statement about Semantic Network Theory?

- A. Information in LTM is stored and organised episodically and chronologically.**
- B.** Information in LTM is organised into categories and subcategories according to meaning.
- C.** Information is stored in LTM in connecting networks.
- D.** The stronger the semantic link between information the closer its proximity to other similar information in the conceptual grid is likely to be.

Answer is A

Explanatory notes

- A is the correct choice because it is an incorrect statement about semantic network theory as information is stored and organised in LTM according to meaning not according to date order or type of episode.
- B is an incorrect choice because it is a correct statement about semantic network theory. Information with similar characteristics or meaning is stored together.
- C is an incorrect choice because it is a correct statement. The groups or categories are organised close together in overlapping networks or grids of concepts.
- D is an incorrect choice because it is a correct statement. Concepts that are not similar are stored further apart than concepts that have similarities.

Question 16

Jake was introduced to ten new friends on his first day of school. When he saw these children in the playground he could remember the first few names but not the rest. Which of the following best describes this phenomenon?

- A.** the serial position effect
- B.** the recency effect
- C.** the mid-range effect
- D. the primacy effect**

Answer is D

Explanatory notes

- D is correct. The primacy effect refers to the tendency to recall information at the beginning of a list rather than information in the middle or at the end.
- A is not the best response. The situation described is an example of the serial position effect but the correct answer (D) is more specific.
- B is incorrect as the recency effect refers to the ability to recall the information at the end of a list – the most recently heard information, rather than information at the beginning or middle of the list.
- C is incorrect as this term is not used in VCE psychology.

Question 17

Research into the impact of aging on recall has found that

- A. Older people are more likely to score well on a test where recognition is used as a measure of retention than younger people.
- B. Age has no impact on the ability to recall information using recognition as a measure of retention.**
- C. Older people are less likely to score well on a test using recognition as a measure of retention than younger people.
- D. The ability to use free recall is not affected by aging.

Answer is B

Explanatory notes

- B is correct. Where recognition is used as a measure of retention no decline in ability to recall has been found in older people.
- A is incorrect as research into the decline of memory over the lifespan has found that there was no difference in the ability of old and young people when recognition was used as a measure of retention.
- C is incorrect for the same reason as for A
- D is incorrect as free recall tends to be a better measure of retention for younger people than for older people.

Question 18

Research into the impact of aging on memory has found that

- A. older people are more likely to lose procedural memories than younger.
- B. older people are less likely to lose episodic memories than younger.
- C. lack of confidence was found to be a factor contributing to poor memory for people in the 18-30 age range.
- D. memory is less likely to decline over time if the individual remains mentally active.**

Answer is D

Explanatory notes

- D is correct as research has found that the more mentally active we are the less likely we are to suffer memory loss.
- A is incorrect as procedural memories are particularly resistant to decline over the lifespan.
- B is incorrect as older people have been found to be more likely to perform poorly on tests of episodic memory than younger people.
- C is incorrect as lack of confidence was more likely to be a contributor to memory loss for older people in the 60 – 80 year age range, than for younger people.

Question 19

Katerina was unable to recall the answer to a question on her biology SAC but when she returned to her bedroom, where she usually studied, the information popped into her head. In this case the bedroom is an example of a

- A. room dependent cue.
- B. state-dependent cue.
- C. **context-dependent cue.**
- D. cued recall.

Answer is C

Explanatory notes

- C is correct. The bedroom acted as a context-dependent cue. When we form a memory we may be influenced by the situation or place in which the memory is formed. A return to that situation or place may enhance the ability to recall.
- A is incorrect as this term is not used in VCE Psychology.
- B is incorrect as a state-dependent cue refers to the ability to recall information being enhanced when in the same state or mood as when the information was originally learned.
- D is incorrect as the term ‘cued recall’ does not provide enough specific information. The bedroom is a cue that aided recall, but context-dependent cue is a better response.

Question 20

Orla uses the narrative chaining method whenever she goes shopping, to help her remember the shopping list. This method involves

- A. making a pronounceable word out of the first letter of each of the items to be remembered.
- B. **making up a story using each of the items on the shopping list.**
- C. making up a story about going shopping.
- D. mentally attaching each of the items to be remembered to a familiar location.

Answer is B

Explanatory notes

- B is correct. Narrative chaining involves linking, or chaining, all of the items to be remembered in a narrative or short story.
- A is incorrect as this method of enhancing memory uses an acronym, not narrative chaining.
- C is incorrect as this response does not adequately describe narrative chaining.
- D is incorrect as this describes the method of loci.

Question 21

When conducting research into the effects of recreational drugs on long-term memory a researcher found that the participants who reported using methamphetamines twice weekly demonstrated lower scores on a memory test than participants who did not regularly use methamphetamines. The difference in test scores between the two groups was found to be significant at the 0.05 level. This means that

- A. the difference between the two groups is likely to be due to chance 95% of the time.
- B. the difference between the two groups is likely to be due to the drug use in 95% of cases.**
- C. the researchers can confidently state that drug use results in loss of memory.
- D. the null hypothesis is supported.

Answer is B

Explanatory notes

- B is correct as significance at the 0.05 level means that the difference between the two groups is likely to be due to the IV (drug use) in 95% of cases.
- A is incorrect as significance at the 0.05 level means that the difference between the two groups is likely to be due to chance in 5% of cases.
- C is incorrect because this is too broad a statement. While the information provided is brief it clearly states that the drug use tested was methamphetamine use, not drug use in general.
- D is incorrect because the null hypothesis has been rejected. The null hypothesis states that any difference between the two groups is likely to be due to chance. At the 0.05 level of significance this is not the case.

Question 22

This research would be more reliable if the researcher administered a measured amount of the drug and then tested the participants. This would not be acceptable however under the ethical guidelines because

- A. it is the researcher's responsibility to ensure that people do not take drugs.
- B. it is the researcher's responsibility to obtain informed consent before administering drugs to participants.
- C. it is the researcher's responsibility to ensure that participant's physical and psychological welfare is protected.**
- D. it would be illegal to administer drugs to participants.

Answer is C

Explanatory notes

- C is correct as administering methamphetamine to participants may cause them physical or psychological harm.
- A is incorrect because responsibility of researchers only covers areas of their research.
- B is incorrect because obtaining informed consent would not override the need to protect participant welfare.
- D is incorrect because it does not deal directly with the ethical guidelines and is therefore an inadequate response.

AREA OF STUDY 2 – Learning

Question 23

Which of the following is **not** an example of learning?

- A. **An infant demonstrating the ability to grasp an adult's index finger.**
- B. A child developing a fear of spiders.
- C. A child mimicking an older sibling's behaviour.
- D. An infant habituating to a repeated stimulus.

Answer is A

Explanatory notes

- A is correct. This is an example of a reflex.
- B is incorrect as fears are learned behaviours.
- C is incorrect as this is an example of observational learning.
- D is incorrect as habituation is a learned behaviour.

Question 24

Behaviour dependent upon maturation

- A. is learned only when the organism has matured sufficiently to allow learning to occur.
- B. generally appears at unpredictable times during development.
- C. **is the result of physical growth and the development of the brain and nervous system.**
- D. is only demonstrated by human beings.

Answer is C

Explanatory notes

- C is correct as behaviours dependent upon maturation occur as the body grows and develops sufficiently to allow the organism to exhibit the behaviour.
- A is incorrect as behaviours dependent upon maturation are not considered to be learning.
- B is incorrect as behaviours dependent upon maturation occur at predictable times within a normal range.
- D is incorrect as animals also require sufficient maturation before performing tasks such as walking or engaging in sexual behaviour.

Question 25

An event that elicits a response from an organism is known as a

- A. learned behaviour.
- B. stimulus.**
- C. reflex.
- D. consequence.

Answer is B

Explanatory notes

- B is correct. A stimulus is an event that produces a response.
- A is incorrect as a learned behaviour is an example of a response not a stimulus.
- C is incorrect as a reflex is another type of response.
- D is incorrect as in the theory of learning, a consequence is the effect produced by a response.

Question 26

In classical conditioning

- A. a stimulus is paired with a response during the conditioning process.
- B. two stimuli that produce a similar responses are paired to create a new response.
- C. the response produces a consequence that reinforces the response.
- D. two previously unrelated stimuli are paired to condition a response.**

Answer is D

Explanatory notes

- D is correct as in classical conditioning two stimuli are paired to condition a response to the previously neutral stimulus.
- A is incorrect as this relates to operant conditioning. A stimulus produces a response which is reinforced to condition the response.
- B is incorrect as in classical conditioning the neutral stimulus is paired with an unconditioned stimulus to produce a conditioned response to the neutral stimulus.
- C is incorrect as operant conditioning occurs as a result of the consequence of a response being reinforced.

Question 27

Which of the following is a **correct** statement about classical conditioning?

- A. The neutral stimulus always produces a conditioned response in the first stage.
- B. A stimulus that produces a response that occurs naturally is known as an unconditioned stimulus.**
- C. Conditioning cannot occur involuntarily.
- D. The conditioned response will occur as a reaction to the unconditioned stimulus.

Answer is B

Explanatory notes

- B is correct. When a stimulus such as turning on a bright light, causes a natural response, blinking, it is known as an unconditioned stimulus. The organism does not have to be conditioned to blink when suddenly confronted with a bright light.
- A is incorrect as the neutral stimulus will not usually produce the conditioned response unless it is repeatedly paired with the unconditioned stimulus. In the case of one-trial learning however, one pairing of the neutral stimulus with a very unpleasant stimulus may create an association between the two.
- C is incorrect as conditioning sometimes does occur involuntarily in classical conditioning.
- D is incorrect as the conditioned response is one that would not normally occur in response to the conditioned stimulus, but only occurs after conditioning has taken place.

Question 28

Jackson was playing with a kitten when the kitten scratched his hand. He continued to play with the kitten but it scratched his hand several more times. After that whenever the kitten came near to Jackson he reacted by quickly pulling his hand away. Initially the kitten was the _____ but after Jackson had been scratched several times it became the _____. Jackson's response of pulling away was the _____.

- A. conditioned stimulus; unconditioned stimulus; conditioned response
- B. neutral stimulus; conditioned stimulus; unconditioned response
- C. unconditioned stimulus; unconditioned response; conditioned response
- D. **neutral stimulus; conditioned stimulus; conditioned response**

Answer is D

Explanatory notes

- D is correct. The kitten was initially a neutral stimulus, it then became the conditioned stimulus producing the conditioned fear response.
- A is incorrect as the kitten was initially the neutral stimulus as it produced no fear response and therefore could not be called a conditioned stimulus at this point. After the conditioning had occurred the kitten became the conditioned stimulus, The fear response was the conditioned response. Prior to this the reaction to being scratched was the unconditioned response – as it was natural to pull away from the scratch.
- B is incorrect because while neutral stimulus and conditioned stimulus are correct, unconditioned response is not.
- C is incorrect as the kitten was initially the neutral stimulus, then became the conditioned stimulus producing the conditioned response.

Question 29

In the above example, after the conditioning had occurred Jackson responded fearfully to a puppy. This is an example of

- A. **stimulus generalisation.**
- B. extinction.
- C. stimulus discrimination.
- D. spontaneous recovery.

Answer is A

Explanatory notes

- A is correct. Jackson generalised his fear to other small animals, namely the puppy, therefore demonstrating stimulus generalisation.
- B is incorrect. If Jackson had ceased to demonstrate the fear response when presented with the kitten his conditioned response would have been extinguished, but this fear response was not so extinction had not occurred.
- C is incorrect. If Jackson had only responded fearfully to the kitten but happily played with the puppy he would have been demonstrating stimulus discrimination.
- D is incorrect. Spontaneous recovery is the re-emergence of the conditioned response to the conditioned stimulus, after this response has not been evident for some time.

Question 30

In operant conditioning a stimulus that strengthens a behaviour by removing an unpleasant stimulus is known as

- A. positive reinforcement.
- B. punishment
- C. **negative reinforcement.**
- D. operant extinction.

Answer is C

Explanatory notes

- C is correct as a behaviour that is followed by the removal of an unpleasant stimulus is strengthened.
- A is incorrect as positive reinforcement strengthens a behaviour by adding a positive consequence of that behaviour.
- B is incorrect as punishment weakens an undesirable behaviour as a result of the consequence of that behaviour.
- D is incorrect as operant extinction is the gradual fading of a conditioned response when reinforcement is removed.

Question 31

In operant conditioning the role of the learner is

- A. active and voluntary.
- B. passive and voluntary.
- C. active and involuntary.
- D. **may be either A or C.**

Answer is D

Explanatory notes

- A and C are both correct, therefore D is the option to choose here. In operant conditioning the learner actively operates upon the environment to produce a desired consequence and the response may be voluntary or involuntary.
- B is incorrect because the learner is not passive in operant conditioning.

Question 32

Watson & Raynor (1920) carried out experiments to determine whether fear could be conditioned. In these experiments the white laboratory rat was initially a _____ stimulus, but when paired with the loud noise it produced the _____ response.

- A. conditioned; unconditioned
- B. **neutral; conditioned**
- C. neutral; unconditioned
- D. conditioned; conditioned

Answer is B

Explanatory notes

- B is correct. Initially the rat produced no fear, it was a neutral stimulus. It was only when paired with the loud noise that the fear response (CR) was elicited.
- A is incorrect because the white rabbit did not produce the fear response (CR) in the initial stage of the experiment. At this stage Little Albert reached out to touch the rat and exhibited no fear.
- C is incorrect as the fear response was conditioned.
- D is incorrect because the rat was a neutral stimulus not a conditioned stimulus.

Question 33

Operant conditioning is most effective if the reinforcement is given

- A. **immediately after the correct response.**
- B. immediately before the correct response.
- C. only after the first correct response.
- D. at anytime after the correct response.

Answer is A

Explanatory notes

- A is correct because operant conditioning is most effective if a positive reinforcer is given immediately after the correct response.
- B is incorrect because in operant conditioning the organism operates upon the environment to produce a desired outcome. If the outcome is given prior to the desired behaviour there is no incentive for the organism to produce that behaviour.
- C is incorrect because operant conditioning usually requires more than one positive reinforcer to be most effective.
- D is incorrect because the best effect is produced if the reinforcement is immediately after the correct response.

Question 34

Farah works part-time in a shoe store and is paid \$14 per hour. This is an example of a

- A. variable interval schedule of reinforcement.
- B. fixed interval schedule of reinforcement.**
- C. variable ratio schedule of reinforcement.
- D. fixed ratio schedule of reinforcement.

Answer is B

Explanatory notes

- B is correct because the reinforcement occurs after every hour (interval) worked.
- A is incorrect because the payment (reinforcement) does not vary, it is paid for every hour worked.
- C is incorrect because this is not a ratio it is an interval, and the payment schedule does not vary.
- D is incorrect because it is not payment for a fixed number. If Farah was paid \$14 for every pair of shoes she sold it would be a fixed ratio schedule of reinforcement.

Question 35

Pedro loves to play soccer and particularly loves the terrific feeling he gets when he kicks a goal. He doesn't score a goal at every game, usually he only scores every two or three games, but he keeps on playing, always hoping he will score. Pedro is operating on a

- A. variable interval schedule of reinforcement.
- B. fixed interval schedule of reinforcement.
- C. variable ratio schedule of reinforcement.**
- D. fixed ratio schedule of reinforcement.

Answer is C

Explanatory notes

- C is correct because the number of games between scoring varies.
- A is incorrect because it is the number of games between scoring that varies, not the amount of time between goals.
- B is incorrect because his scoring is not fixed, and not linked to an interval of time. If he scored every hour, it would be a fixed interval schedule.
- D is incorrect because he does not score on a fixed schedule – every game, or every second game, the number of games he has to play to score varies.

Question 36

Georgia was a lazy student and only occasionally did her homework. The punishment for not completing homework was a detention but the teacher did not check homework all the time so Georgia was punished with detention only every now and then. Giving detention as a punishment was not likely to be effective in this case because

- A. a detention was not a sufficiently serious consequence.
- B. the punishment was given a long time after the undesirable behaviour.
- C. punishment is not an effective way of changing behaviour
- D. punishment must be given consistently if it is to be effective.**

Answer is D

Explanatory notes

- D is correct as consistent punishment is more effective than inconsistent punishment.
- A is incorrect because punishment does not have to be particularly harsh in order to work.
- B is incorrect because this does not best fit the scenario.
- C is incorrect because punishment can be an effective way of changing behaviour if the punishment is given consistently, is not too harsh, and is given immediately after the undesirable behaviour is demonstrated.

Question 37

In classical conditioning extinction occurs when the _____ while in operant conditioning it occurs when reinforcement is _____.

- A. UCS is no longer paired with the UCR; discontinued
- B. CR gradually disappears because it is no longer paired with the UCR; negative
- C. **CR gradually disappears because it is no longer paired with the CS; discontinued**
- D. CR reappears after not being evident; reintroduced

Answer is C

Explanatory notes

- C is correct because in classical conditioning extinction occurs when the CR gradually disappears because the CS is no longer paired with the UCS; in operant conditioning extinction is likely to occur if reinforcement of the desired response is discontinued.
- A is incorrect because pairing of the UCS with the UCR brings about no change in behaviour, the first naturally produces the second and conditioning does not occur; discontinuing reinforcement will usually lead to the extinction of the CR in operant conditioning.
- B is incorrect because the CS needs to be paired with the UCS for conditioning to occur, and negative reinforcement leads to a strengthening of a response, not extinction.
- D is incorrect because both of these statements relate to spontaneous recovery not extinction.

Question 38

In operant conditioning _____ occurs when the organism only produces the desired response to a specific stimulus.

- A. **stimulus discrimination**
- B. stimulus generalisation
- C. spontaneous recovery
- D. stimulus specific behaviour

Answer is A

Explanatory notes

- A is correct because stimulus discrimination occurs when the organism only produces the correct response to one specific stimulus.
- B is incorrect because stimulus generalisation occurs when the organism produces the correct response to stimuli that are similar to the conditioned stimulus.
- C is incorrect as spontaneous recovery occurs when an organism begins to respond to a conditioned stimulus spontaneously, after the conditioned response has been extinct.
- D is incorrect as this term is not used in VCE psychology.

Question 39

Trial and error learning is also referred to as

- A. **instrumental learning.**
- B. operational learning.
- C. respondent conditioning.
- D. both A & B.

Answer is A

Explanatory notes

- A is correct as in trial and error learning the learner is instrumental in learning.
- B is incorrect as operational learning is a term not used in VCE Psychology
- C is incorrect because respondent conditioning is a term used by Skinner to describe classical conditioning.
- D is incorrect as B is incorrect.

Question 40

Vicarious punishment occurs when an observed behaviour is

- A. imitated because the model was positively reinforced.
- B. replicated because the observer has seen the model receive a negative consequence for carrying out that behaviour.
- C. **avoided because the observer has seen the model receive a negative consequence for carrying out that behaviour.**
- D. imitated because the model was not punished.

Answer is C

Explanatory notes

- C is correct because vicarious punishment leads to the likelihood of the observed behaviour being avoided, not replicated.
- A is incorrect because it describes vicarious reinforcement, not vicarious punishment.
- B is incorrect because punishment leads to a reduction in a particular behaviour, not to an increase in that behaviour.
- D is incorrect because the observed behaviour is less likely to be imitated, not more likely.

Question 41

Which of the following is **not** an example of observational learning?

- A. A child rocking a doll to sleep after seeing his or her mother rocking a baby to sleep.
- B. **A child jumping due to fear at the sight of a spider because his or her mother always does the same.**
- C. A person miming a song that has been performed on a music show.
- D. A student putting the collar of their blazer up because a cool kid in Yr 12 does this.

Answer is B

Explanatory notes

- B is the correct answer as it is not an example of observational learning as this behaviour more closely resembles a reflexive fear response that has been conditioned vicariously.
- A, C and D all fit the definition of observational learning as they suggest a conscious decision to carry out a particular behaviour after seeing a model perform the same behaviour.

Question 42

Josh was talking in his dance class and therefore missed the teacher demonstrating how to perform a particular step. When asked to demonstrate what had been shown in class he was unable to do so. Which of the following elements of observational learning is missing from this situation, thus making learning unlikely?

- A. retention
- B. attention**
- C. reproduction
- D. motivation-reinforcement

Answer is B.

Explanatory notes

- B is correct because Josh did not attend to the teacher therefore could not learn through observation.
- A is incorrect because Josh did not see the demonstration so had nothing to retain.
- C is incorrect as Josh could not reproduce behaviour that he had not seen.
- D is incorrect because even if he were motivated to perform the behaviour, as the learning did not occur, Josh could not do so.

Question 43

Ingrid is a very conscientious student and feels a deep sense of personal satisfaction when she does well in her exams. In terms of the elements of observational learning which of the following best explains Ingrid's behaviour?

- A. motivation-reinforcement
- B. self-reinforcement**
- C. external reinforcement
- D. vicarious reinforcement

Answer is B

Explanatory notes

- B is correct because the deep sense of satisfaction is an example of self-reinforcement, one of the aspects of motivation described by Bandura.
- A is not correct because this doesn't adequately describe Ingrid's behaviour. She is motivated to do well and does receive rewards for her hard work. B is a better response.
- C is incorrect because Ingrid's personal satisfaction is the reinforcement; it is not external in origin.
- D is incorrect because Ingrid is not mimicking another's behaviour because he or she was reinforced for good marks.

Question 44

Larissa attended a Biology pre-examination lecture during which the lecturer explained strategies to help learn and retain the information contained in the Biology course. Larissa then applied these strategies to her studies in Psychology and found that her results improved. This is an example of

- A. learning set.**
- B. motivation-reinforcement.**
- C. observational learning.**
- D. re-learning.**

Answer is A

Explanatory notes

- A is correct because Larissa demonstrated a learning set or a positive transfer of learning from one situation to another.
- B is incorrect because motivation-reinforcement refers to observational learning and this is not a clear example of that.
- C is incorrect for the same reason as B.
- D is incorrect as re-learning applies to previously learned information, being revised and therefore recalled. This situation applies to two different sets of information being learned, and applies more to the skill transfer than an information transfer.

SECTION B – Short answer questions

AREA OF STUDY 1 – Memory

Question 1

The storage capacity of short-term memory is _____ while its duration is _____.

Solution

Storage capacity: Seven. Plus or minus two bits of information

Duration: approximately twenty seconds.

2 marks

Mark allocation

- 1 mark for capacity
- 1 mark for duration

Tip

- *It is also acceptable to say that the capacity is between five and nine bits of information.*

Question 2

Identify the **three** sub-systems of working memory as proposed by Baddeley (1999)

Solution

1. Verbal working memory (phonological loop)
2. Visual working memory (visuospatial sketchpad)
3. Central executive.

3 marks

Mark allocation

- 1 mark for each term identified

Question 3

Mrs Young's prep class were learning about different types of foods. In terms of the semantic network theory

3a. explain how this information would be organised in the students' memory.

Solution

The concept 'food' would be broken down into overlapping sub-categories of different types of food and stored as nodes, linked to the main concept. These nodes would be linked to other nodes forming a network, each one containing specific information about each type of food.

3 marks

Mark allocation

- 1 mark for identifying that information is stored according to concepts,
- 1 for stating that these are broken into overlapping sub-categories or nodes
- 1 for stating that the sub-categories are linked forming a network.

3b. describe the process of retrieval of this information.

Solution

The word 'food' would act as a retrieval cue which would activate the stored memories or nodes, and continue to activate linked nodes until the appropriate information was retrieved.

2 marks

Mark allocation

- 1 mark for identifying 'food' as a retrieval cue
- 1 mark for stating that this activates the links between the nodes.

Question 4

According to retrieval failure theory, why are some memories forgotten?

Solution

Retrieval failure theory states that we forget because we have not used the right retrieval cue to retrieve information from LTM.

1 mark

Explanatory note

- The key pieces of information here are 'right retrieval cue' and 'LTM'.

Question 5

Define retrograde amnesia and describe its long-term effects on the individual sufferer.

Solution

Retrograde amnesia occurs when brain damage causes the loss of memories formed prior to the brain damage.

The effects are usually temporary.

2 marks

Mark allocation

- 1 mark for correctly defining retrograde amnesia
- 1 mark for identifying the temporary nature of retrograde amnesia.

Question 6

Mnemonic devices rely on the method of _____ to improve memory.

Solution

Elaboration

1 mark

Explanatory note

- Mnemonic devices encourage us to add meaning to information in order to help us to remember it. This is the essence of elaboration.

Tip

- *Although only worth one mark, this is a difficult question and highlights the need to make links between the various topics you are learning. The exam will have questions designed to test your knowledge and your understanding. This is definitely an 'understanding' question.*

AREA OF STUDY 2 – Learning

Question 7

What are the key features of a fixed action pattern?

Solution

Fixed action patterns are complex patterns of behaviour that are innate, are performed identically by every member of a species (or gender within a species), and are in response to an environmental stimulus.

3 marks

Mark allocation

- 1 mark for identifying the complex nature of the behaviour.
- 1 mark for identifying that the behaviour is innate and performed identically within the species or gender.
- 1 mark for stating that they are in response to environmental stimuli.

Tip

- *When answering questions such as this it is recommended that you number each point within your answer to ensure that you provide three specific pieces of information. This may help you avoid the common mistake of providing the same piece of information in two different ways.*

Question 8

8a. Describe, using the language of classical conditioning, how Little Albert acquired his conditioned fear response in the experiments of Watson and Raynor (1920).

Solution

The initial trials paired the white laboratory rat (neutral stimulus) with a loud noise (unconditioned stimulus). Little Albert learned to associate the rat with the frightening noise, so the rat became the conditioned stimulus, producing the conditioned response (fear of the rat).

2 marks

Mark allocation

- 1 mark for information on pairing of NS with UCS
- 1 mark for identifying that the rat became the CS and the fear of the rat the CR

Tip

- *Fear of rat must be identified as the CR, not just fear.*

8b. Identify **two** reasons that this experiment would not gain the approval of an ethics committee today.

Solution

1. Watson & Raynor did not appear to have informed consent of Little Albert's mother.
2. The experiment was designed to produce psychological harm.

2 marks

Mark allocation

- 1 mark for each breach of the ethical guidelines.

Tip

- *It would also be acceptable to identify lack of confidentiality as the photographs of Little Albert were published, and failure to debrief, but the informed consent and psychological harm are the most obvious breaches.*

Question 9

Describe, with reference to the Skinner box, the main features of Skinner's theory of operant conditioning.

Solution

Skinner proposed that the consequences of behaviour will either strengthen or weaken the likelihood of that behaviour being repeated, and that organisms will operate upon their environment to bring about pleasing consequences of their behaviour. In experiments with laboratory rats he used the Skinner box, an apparatus that rewarded the rat with food each time it depressed a bar. The rat learned to press the bar (response) to achieve the food reward (consequence / reinforcement)

3 Marks

Mark allocation

- 1 mark for stating that the consequences of behaviour will shape that behaviour.
- 1 mark for stating that organisms operate upon their environment thus generating rewards.
- 1 mark for describing how the Skinner box works.

Question 10

Isaac was an anxious child who cried whenever he was taken to kindergarten. Sometimes he cried so much that his mother kept him at home. In what way did this situation positively reinforce Isaacs crying behaviour?

Solution

Isaac was rewarded (positively reinforced) for crying by being allowed to stay at home.

1 mark

Explanatory note

- It is essential here to show how Isaac was rewarded for crying.

Question 11

Sophie is fourteen years old and wants to be a singing star. She watches all of the music shows and buys celebrity magazines. Sophie auditioned for Australian Idol and performed a song by Christina Aguilera, imitating her every move. The judges told Sophie to develop her own style before trying again. Describe Sophie's behaviour in terms of the element of observational learning known as attention.

Solution

Sophie attended to Christina Aguilera, a highly *visible* and *familiar* model.

2 marks

Mark allocation

- 1 mark for each of the characteristics of attention that are identified.

Tip

- *It would also be acceptable to state that Sophie perceived Christina Aguilera positively and felt herself similar enough to be able to imitate her behaviour (or any combination of these).*

Question 12

Define the term learning set.

Solution

Learning set is the improvement in learning ability that results from previous experience in another similar learning situation.

1 mark

Explanatory note

- When asked to provide a definition use the one shown in your text. It is worth learning these word for word.

AREA OF STUDY 3 – Research investigation

Read the following research investigation. All of the questions that follow relate to this investigation. Answer all of the questions.

Professor Inch wanted to test for the serial position effect. She randomly selected 90 participants, recruited from an advertisement placed on a student notice board at her university. Each participating student signed a consent form, providing an explanation of how the study would be conducted and informing students that they had a right to leave at any time. The students were then randomly allocated to one of two groups. Professor Inch read out a list of 15 one syllable common nouns to each group. The participants in group one were instructed to write down as many of the words as they could recall immediately after hearing the list. Those in group two were required to listen to music for five minutes before writing down as many of the words as they could recall.

Professor Inch asked a research assistant to collate and analyse the results, and it was found that group one demonstrated the recency effect, recalling significantly more words at the end of the list than from the beginning or the middle. The group two results showed that the primacy effect was evident, as the participants were able to recall significantly more words from the beginning of the list than the middle or the end. With statistical analysis providing a p value of <0.05 for each group, Professor Inch concluded that her research had supported the serial position effect hypothesis.

When the study was concluded Professor Inch explained the results to the participants and distributed copies of the raw scores showing the participants name and the number of words they had recalled correctly.

Question 13

13a. What type of experimental design did Professor Inch use in this study?

Solution

Independent groups

1 mark

Tip

- *This question allows you just one mark for naming the type of design, so all you need to do is write the name. You will get no extra marks for a full sentence eg: the type of experimental design used was the independent groups design, so save time and just provide the minimum amount of words needed to answer the question.*

13b. Identify **one** advantage of this design.

Solution

There are no order effects to control for

1 mark

Explanatory note

- It is also acceptable to state that this design is relatively inexpensive or that it is very easy to implement.

Question 14

In what way was the selection process random?

Solution

All students who read the notice had an equal opportunity of being selected as participants.

1 mark

Question 15

Identify a possible extraneous variable for this study and explain why that might mean the results could not be generalised.

Solution

All of the participants were likely to be university students and may be more used to memorising information than the general population, therefore the result may have been different if a broader range of people were used.

2 marks

Mark allocation

- 1 mark for identifying the extraneous variable as ‘all participants were university students’
- 1 mark for demonstrating that generalising means applying the information to the wider population.

Question 16

Professor Inch did not personally collate and analyse the results. What would be the benefit of this?

Solution

Avoiding the experimenter effect known as experimenter bias.

1 mark

Explanatory note

- It would not be sufficient to simply identify the experimenter effect in this case, experimenter bias must be mentioned.

Question 17

17a. Identify a descriptive statistic that Professor Inch could have calculated using the results of this research.

Solution

Mean number of words recalled for each group

1 mark

17b. This study found that evidence for the serial position effect was *significant*. In terms of statistical analysis, what does this mean?

Solution

Statistical significance means that the result is not likely to have been due to chance alone.

1 mark

Explanatory note

- It is not necessary here to refer to the manipulation of the independent variable, because strictly speaking this study did not have one. You would not lose marks for including this though as the wording of the question is fairly broad.

Question 18

The information states that statistical analysis provided ‘a p value of <0.05 for each group’. What does this mean?

Solution

This means that the probability of the result being due to chance is less than 5%.

1 mark

Question 19

Is the null hypothesis supported in this study? Explain your answer.

Solution

The null hypothesis states that the results are due to chance alone. With a probability value of <0.05 it has been shown that there is a very low probability that the results were due to chance so the null hypothesis is rejected.

3 marks

Mark allocation

- 1 mark for correctly stating that the null hypothesis is rejected.
- 1 mark for defining the null hypothesis.
- 1 mark for linking this to the probability value.

Question 20

Professor Inch correctly applied some ethical requirements in this study but did commit one breach. Identify **three** ethical requirements that were met and **one** that was breached.

Solution

Ethical requirements met: informed consent; right of withdrawal; debriefing.

Ethical requirement breached: confidentiality.

4 marks

Mark allocation

- 1 mark for correctly identifying the ethical requirements that were met (3 in total)
- 1 mark for correctly identifying the breached ethical requirement.

Question 21

In what way did the design used in this study differ to a matched pairs design?

Solution

Rather than simply randomly allocating participants to a group before proceeding, in the matched pairs design the participants are matched in pairs on the basis of relevant personal characteristics.

1 mark

Question 22

Identify the dependent variable in this study.

Solution

The number and position of words recalled in each trial.

1 mark

Explanatory note

- As this research dealt with the serial position effect, it is important to nominate position as part of the dependent variable.

END OF SOLUTIONS BOOK