Insight Publications

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Trial Exam Paper

2008

PSYCHOLOGY

Written examination 2

Solutions book

This book presents:

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

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SECTION A – Multiple-choice questions

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 almost right and these can often trick you into selecting the wrong alternative.*

AREA OF STUDY 1 – Memory

Question 1

Before incoming sensory information can be processed in short-term memory it must first be

A. stored.

B. recognised.

C. retrieved.

D. **encoded.**

Answer is D

Explanatory notes

- A is incorrect because storage occurs after information has been attended to in short-term memory (STM) where information is held and processed before it is transferred to long-term memory (LTM).
- B is incorrect because recognition requires an interactive process between STM and LTM, and is therefore an inaccurate term.
- C is incorrect because retrieval involves transferring information that has previously been stored in LTM to STM for processing.
- D is correct because by attending to sensory information we begin to process it in STM, a cognitive process. This requires encoding so that the information is in a form that short-term memory can use.

Question 2

Relearning is the most sensitive measure of recall because

A. information that has been learned previously is retained in short-term memory and is therefore easily retrieved.

B. relearning involves using maintenance rehearsal therefore the information is more effectively encoded.

C. **relearning relies on retrieving and building upon already stored memories.**

D. relearning involves using elaborative rehearsal therefore the information is more effectively stored in long-term memory.

Answer is C

Explanatory notes

- A is incorrect because previously learned material is stored in LTM not STM. It is assumed that relearning involves building upon previously stored information.
- B is incorrect because maintenance rehearsal keeps information in STM and is an ineffective means of storing memories.
- C is correct because relearning occurs when we actively revise information that has previously been learned.
- D is incorrect because relearning may not necessarily use elaborative rehearsal.

Question 3

The Atkinson–Shiffrin model of memory states that information in short-term memory

A. must first be rehearsed before it can be transferred to sensory memory.

B. **must be encoded before it can be stored in long-term memory.**

C. must first be rehearsed and consolidated before it is stored in long-term memory.

D. must be retrieved from long-term memory before it can be encoded.

Answer is B

Explanatory notes

- A is incorrect because there is no transference from STM to sensory memory.
- B is correct because according to the Atkinson–Shiffrin model we cannot store long-term memories until encoding has occurred.
- C is incorrect because it is not always necessary to consciously rehearse information for it to be stored in LTM.
- D is incorrect because encoding occurs before storage, and retrieval occurs after storage.

Question 4

Rote learning is a method of memorising information using

A. elaborative rehearsal.

B. links to pre-existing information.

C. self-referencing.

D. **maintenance rehearsal.**

Answer is D

Explanatory notes

- A and B are incorrect because elaborative rehearsal involves linking information to previously learned information whereas maintenance rehearsal involves rote repetition.
- C is incorrect because self-referencing involves relating information to some personal experience or aspect of the self in order to help memorise it.
- D is correct. Rote learning, i.e. repetition of information in order to keep it in STM, is the same as maintenance rehearsal.

Question 5

Semantic memory holds information such as

A. a memory of an incident at a birthday party.

B. **knowledge about how aeroplanes stay up.**

C. how to play the piano.

D. the ability to touch type.

Answer is B

Explanatory notes

- A is incorrect as this is an example of episodic memory.
- B is correct because semantic memory is described as knowledge about facts.
- C and D are incorrect as these are both examples of procedural memory.

Question 6

Katrina was asked to go to the shop to pick up some groceries. Her mother gave her a verbal list of items that she needed to buy. Katrina attempted to memorise the items as her mother said them and then tried to write them down a few minutes later.

According to the serial position effect, which of the items would Katrina be **least** likely to remember?

A. **items in the middle of the list**
B. items at the end of the list
C. items at the beginning of the list
D. items at the beginning and in the middle of the list

Answer is A

Explanatory notes

- A is correct because the serial position effect shows that recall is best for items at the end of a list, then items at the beginning. Items in the middle are the most likely to be forgotten.
- B, C and D are incorrect. This is explained above.

Tip

- *Take care with questions that include words such as least, most, best etc. When in a hurry it is very easy to misread these and therefore select an incorrect response.*

Question 7

The recency effect is noted if

A. there is better recall for items at the beginning of a list.
B. there is a better recall for items at the beginning and end of a list.
C. **there is better recall for items at the end of a list.**
D. there is better recall for items in the middle of a list.

Answer is C

Explanatory notes

- A is incorrect as this refers to the primacy effect.
- B is incorrect as this refers to both the primacy and recency effects.
- C is correct. The recency effect is noted when there is superior recall for items at the end of a list.
- D is incorrect as there is no specific term used to describe recall for items in the middle of the list.

Question 8

Auditory information is held in _____memory for approximately _____.

A. STM, 3 to 4 seconds

B. sensory, 0.3 of a second

C. iconic, 0.3 of a second

D. **echoic, 3 to 4 seconds**

Answer is D

Explanatory notes

- A is incorrect because sensory memory is not held in STM.
- B and C are incorrect because iconic memory is a form of sensory memory but information is only held for 0.3 of a second.
- D is correct because auditory information is held in the sensory memory register known as echoic memory for approximately 3 to 4 seconds: long enough for us to hear the entire length of a long word, or time to string several words together in order to make better sense of what is being said.

Question 9

According to Baddeley's model of working memory,

A. the central executive processes information from the phonological loop but not the visuospatial sketchpad.

B. **the central executive processes information from the phonological loop, the visuospatial sketchpad and LTM.**

C. the central executive processes information from the phonological loop, the visuospatial sketchpad and STM.

D. the central executive processes information from the phonological loop and verbal working memory.

Answer is B

Explanatory notes

- A is incorrect because the central executive processes information from both the phonological loop and the visuospatial sketchpad.
- B is correct as the central executive processes and integrates information from the phonological loop and the visuospatial sketchpad, as well as long-term memory.
- C is incorrect because working memory is STM.
- D is incorrect because the phonological loop is also called verbal working memory.

Question 10

Hans was involved in a road accident when travelling in a taxi as a child and suffered a leg injury. He now becomes quite nervous when travelling in a car driven by someone he does not know well, particularly if the driver is travelling at high speed. Hans's memory of the accident is a function of his _____ memory, while his understanding that high speed can cause accidents is a function of his _____ memory.

A. **episodic, semantic**

B. episodic, declarative

C. semantic, episodic

D. declarative, episodic

Answer is A

Explanatory notes

- A is correct because the memory of the event is episodic, while the knowledge about possible outcomes of speed is a semantic memory. This highlights the way in which the two branches of declarative memory are integrated.
- B is incorrect because the term 'declarative' is not precise enough.
- C is incorrect because the words are in the wrong order.
- D is incorrect – see B.

Question 11

The consolidation theory of memory suggests that storage of memories is a function of

A. purely psychological processes.

B. purely physiological processes.

C. **a combination of both physiological and psychological processes.**

D. neither physiological nor psychological processes, but is a function of time.

Answer is C

Explanatory notes

- A and B are incorrect because the process involves both psychological processes and physiological processes.
- C is correct. The consolidation theory proposes that physical changes to the neurons in the brain take place after learning, forming a physical trace on the brain. This therefore involves both physiological and psychological processes.
- D is incorrect because it is an oversimplification.

Question 12

Which of the following statements about interference theory is **incorrect**?

A. In proactive interference, material learned previously is likely to interfere with the ability to recall newly learned material, especially if the material is similar.

B. **In proactive interference, material learned later is likely to interfere with the ability to recall previously learned material if the earlier material is easier to learn.**

C. Research into proactive interference suggests that all previously learned material has the potential to interfere with the learning of new similar material, regardless of the level of difficulty of the material.

D. In retroactive interference, newly learned material interferes with the ability to recall previously learned material, particularly if the material is similar.

Answer is B

Explanatory notes

- B is an incorrect statement about proactive interference as old interferes with new, and the effect occurs regardless of the difficulty of the material being learned.
- A, C and D are all correct statements about interference.

Question 13

The understanding that information in LTM is organised according to meaning and linked to other similar information is the basis of the

A. consolidation theory.

B. retrieval theory.

C. working memory theory.

D. **semantic network theory.**

Answer is D

Explanatory notes

- A is incorrect as consolidation theory refers to the amount of time it takes for a new memory trace to be formed or consolidated in LTM.
- B is incorrect as this term is not used in VCE Psychology.
- C is incorrect as this refers to STM.
- D is correct as semantic network theory states that information in LTM is organised systematically in the form of overlapping networks of concepts that are interconnected and interrelated by meaningful links.

Question 14

Herman fell down a set of concrete stairs and suffered multiple injuries, including a severe blow to the head. Since the accident he has had trouble remembering new information. It is likely that Herman is experiencing

A. anterograde interference.

B. **anterograde amnesia.**

C. retroactive interference.

D. retrograde amnesia.

Answer is B

Explanatory notes

- A is incorrect as this term is incorrect.
- B is correct as anterograde amnesia is an organic form of forgetting that occurs when new memories cannot be formed following a brain injury.
- C is incorrect as retroactive interference is an inability to remember previously learned information because new information is interfering with the old.
- D is incorrect because retrograde amnesia is an organic form of forgetting that occurs when old memories cannot be retrieved following a brain injury.

Question 15

In long-term memory, information is usually stored

A. alphabetically.

B. chronologically.

C. **semantically.**

D. categorically.

Answer is C

Explanatory notes

- A, B and D are incorrect as these terms are inadequate to describe the semantic network.
- C is correct as the term semantic refers to meaning and the semantic network theory states that information in LTM is organised systematically in the form of overlapping networks of concepts that are interconnected and interrelated by meaningful links.

Question 16

The forgetting curve would normally show

A. **a steep fall in the first 20 minutes and a steady decline in the next 8 hours.**

B. a steep rise in the first 20 minutes and a steady decline in the next 8 hours.

C. a steep fall in the first hour, then a steady decline over the next 30 minutes, and then a levelling out.

D. a steady decline over a period of 24 hours.

Answer is A

Explanatory notes

- A is correct as the forgetting curve shows the rate and amount of forgetting over time and most forgetting occurs in the first 20 minutes (approx 60%) followed by a decline of another 25% over the next 8 hours.
- B is incorrect as the curve does not rise, it falls.
- C is incorrect as the fall is not steady in the first hour; the rate slows after 20 minutes.
- D is incorrect as the decline is not steady.

Tip

- *The best way to learn the forgetting curve is to practise drawing it. If you do this several times with fully labelled axes, you will remember the detail for the exam.*

Question 17

The theory of forgetting that proposes that we sometimes forget due to the failure to use the right memory cue is known as

A. **retrieval failure.**

B. motivated forgetting.

C. decay theory.

D. encoding failure.

Answer is A

Explanatory notes

- A is correct as retrieval failure theory states that we forget because of an inability to find the correct retrieval cue at that time.
- B is incorrect because motivated forgetting refers to memories that have been repressed because recall may be too painful.
- C is incorrect because decay theory proposes that we forget because the physical memory trace fades over time, most likely because of lack of use.
- D is incorrect because encoding failure refers to pseudo-forgetting – we are unable to recall the information because it was never encoded correctly in the first place. It is not a term that is studied in VCE Psychology.

Question 18

The tip of the tongue phenomenon is an example of

A. motivated forgetting.
B. forgetting due to decay.
C. **retrieval failure.**
D. interference theory.

Answer is C

Explanatory notes

- A is incorrect because tip of the tongue (TOT) is not usually used to describe repressed memories.
- B is incorrect because decay theory states that the memory trace has faded through disuse over time. TOT is not a lost memory, it is one that can only partially be retrieved at a point in time.
- C is correct as TOT occurs because insufficient cues are available at that point in time to allow the complete memory to be recalled.
- D is incorrect because TOT is not due to interference.

Question 19

Jacinta is 18, and Massimo is a fit and healthy 80-year-old. If given a memory test the most likely result would be that

A. **Jacinta would score better on a complicated task using working memory.**
B. Massimo would score better on a complicated task using working memory.
C. Jacinta would score equally well as Massimo on a complicated task using working memory, but not as well on a task using episodic memory.
D. Massimo would score less well than Jacinta on a complicated task using working memory and better on a test of episodic memory.

Answer is A

Explanatory notes

- A is correct because age-related decline appears to be most apparent when a task requires storage and manipulation of information. Research has shown that cognitive slowing may be a common feature of ageing, although older people who have remained cognitively active tend to experience less decline.
- B is incorrect – see explanation for A.
- C is incorrect as age-related decline would be expected on both tasks, as episodic memory seems to begin to decline from the age of between 30 and 50 years.
- D is incorrect – see above.

Question 20

Research has found that when testing on procedural memory, older people

A. **score equally as well as younger people.**
B. score well below younger people.
C. score marginally better than younger people.
D. score significantly better than young people.

Answer is A

Explanatory notes

- A is correct as procedural memories are very resistant to decline over time.
- B, C and D are incorrect as tests on procedural memory show that older people score as well as younger.

Question 21

The mnemonic device known as narrative chaining involves

A. using the first letters of each item that needs to be remembered to form a pronounceable word.

B. using visualisation matching the word to be remembered with a specific well-known location to aid recall.

C. **linking otherwise unrelated items together in a story to help recall information.**

D. constructing a rhyme using the words that need to be remembered to aid recall.

Answer is C

Explanatory notes

- A is incorrect as this mnemonic device is known as an acronym. This is not a part of the VCE Psychology course.
- B is incorrect as this mnemonic device is known as method of loci.
- C is correct as when normally unrelated items are linked in a narrative or story as a means of aiding recall, it is known as narrative chaining.
- D is incorrect. Although the narrative may involve a rhyme it is not an essential feature.

Question 22

A science teacher who had a group of students with learning difficulties tried two different methods of learning. He asked his class to learn the first half of the periodic table by rote, and the second half by making up a rhyme. The results indicated that the class found the second method to be better as they were able to remember more of the periodic table learned this way. Which of the following is a correct statement about this activity?

A. The findings showed conclusively that maintenance rehearsal is an inferior form of learning compared to using elaborative rehearsal.

B. The results of the learning activity were statistically significant.

C. **The class initially used maintenance rehearsal and then used elaborative rehearsal for the second half of the activity.**

D. The class initially used elaborative rehearsal and then used maintenance rehearsal for the second half of the activity.

Answer is C

Explanatory notes

- A and B are both incorrect as there could be no conclusion drawn, or statement of statistical significance, from the information provided.
- C is correct as rote learning is maintenance rehearsal while rhyming the key information to aid recall is a form of elaborative rehearsal.
- D is incorrect because the activity occurred in the reverse order.

AREA OF STUDY 2 – Learning

Question 23

Which of the following is the most correct statement about learning?

A. Learning is apparent when a permanent change in behaviour has been observed.

B. Learning may occur intentionally or unintentionally and will result in an immediate change in behaviour.

C. **Learning is best defined as a relatively permanent change in behaviour as a result of past experience.**

D. Learning is defined as a relatively permanent change in behaviour but does not necessarily have to be the result of past experience.

Answer is C

Explanatory notes

- A is incorrect because the change in behaviour observed may not be permanent.
- B is incorrect as learning may remain undemonstrated for an extended period of time.
- C is correct as we demonstrate our learning by changing our behaviour after an experience of learning. This change may or may not be permanent, depending upon the circumstance.
- D is incorrect because by its nature learning must result from past experience.

Question 24

Reflexive behaviours are

A. permanent.

B. relatively permanent.

C. easily changed.

D. **linked to developmental needs.**

Answer is D

Explanatory notes

- A is incorrect because while some reflexive behaviours may be permanent most disappear after their usefulness has ended.
- B is incorrect – see above.
- C is incorrect as reflexive actions are usually innate and related to survival so are strongly resistant to change during the period that they are needed.
- D is correct as reflexive responses are often related to survival and physical development. For example, the sucking reflex of a newborn is necessary so that the infant may receive nourishment and therefore follow a normal developmental path.

Question 25

Fixed-action patterns are

A. common across all animal species.

B. unique to a very small range of organisms.

C. usually performed by humans.

D. **genetically programmed.**

Answer is D

Explanatory notes

- A is incorrect as fixed-action patterns are species specific.
- B is incorrect as fixed-action patterns have been observed in many species of animal.
- C is incorrect as fixed-action patterns are not performed by humans.
- D is correct as fixed-action patterns are inherited by each member of the species that would normally perform it.

Question 26

In classical conditioning, the conditioned stimulus

A. **is the stimulus that is paired with the unconditioned stimulus to generate a conditioned response.**

B. is any stimulus that produces a particular naturally occurring response.

C. is usually the same as the unconditioned stimulus.

D. is the most resistant to extinction.

Answer is A

Explanatory notes

- A is correct. The conditioned stimulus is neutral at the beginning of the conditioning process. Through association with the unconditioned stimulus it will produce the conditioned response once conditioning has occurred.
- B is incorrect because the unconditioned stimulus will produce a naturally occurring response.
- C is incorrect as these two must be different.
- D is incorrect as a stimulus can't be extinguished, it is the response that is extinguished.

Question 27

In classical conditioning, acquisition is

A. the process of learning to associate the unconditioned stimulus and the unconditioned response.

B. **the process of learning to associate the conditioned stimulus and the unconditioned stimulus.**

C. the process of learning to associate the conditioned response and the unconditioned stimulus.

D. the process of learning to associate the unconditioned response and the unconditioned stimulus.

Answer is B

Explanatory notes

- A is incorrect as the association of the unconditioned stimulus (UCS) with the unconditioned response (UCR) does not require any conditioning. The UCR will normally occur in response to the UCS.
- B is correct as conditioning requires a learned or conditioned response to the conditioned stimulus (CS), and this occurs when the initially neutral CS is paired with the UCS.
- C is incorrect because the CR is not learned as a result of being associated with the UCS – it is learned as a result of being associated with the CS.
- D is incorrect because the association of the UCR with the UCS does not require any conditioning. The UCR will normally occur in response to the UCS.

Question 28

In classical conditioning, extinction is

A. the gradual decrease in the strength or rate of an unconditioned stimulus when the conditioned stimulus is no longer presented.

B. the gradual decrease in the strength or rate of a conditioned stimulus when the unconditioned stimulus is no longer presented.

C. **the gradual decrease in the strength or rate of a conditioned response when the unconditioned stimulus is no longer presented.**

D. the gradual decrease in the strength or rate of a conditioned response when the conditioned stimulus is no longer presented.

Answer is C

Explanatory notes

- A and B are incorrect as a stimulus is not extinguished. It is a response that is extinguished.
- C is correct because it is the continued pairing of the CS and the UCS that reinforces the strength of the CR. If this pairing is ended the response can be weakened or completely extinguished.
- D is incorrect because as the CR is not a natural response to the CS, if it is no longer paired with the UCS the association will fade in many cases.

Question 29

In classical conditioning, spontaneous recovery is

A. the reappearance of a conditioned response when the unconditioned stimulus is presented after apparent extinction.

B. the reappearance of an unconditioned response when the unconditioned stimulus is presented after apparent extinction.

C. the reappearance of a conditioned stimulus when the unconditioned stimulus is presented after apparent extinction.

D. **the reappearance of a conditioned response when the conditioned stimulus is presented after apparent extinction.**

Answer is D

Explanatory notes

- A is incorrect as conditioning is evident if the CR occurs in response to the CS.
- B is incorrect as an UCR can't be extinguished therefore is not able to be spontaneously recovered.
- C is incorrect as a CS can't reappear – it has to be a CR.
- D is correct as spontaneous recovery occurs when the CR reappears upon presentation of the CS following apparent extinction.

Question 30

In aversion therapy, when a nausea-inducing drug is paired with alcohol to create an aversion to alcohol, the drug is the

A. conditioned stimulus.

B. **unconditioned stimulus.**

C. conditioned response.

D. unconditioned response.

Answer is B

Explanatory notes

- A is incorrect as it is not necessary to condition a nausea response to a nausea-inducing drug – it will automatically produce the UCR.
- B is correct as the drug will normally produce the nausea.
- C is incorrect the drug is a stimulus not a response.
- D is incorrect as the drug is a stimulus not a response.

Question 31

The main limitation of aversion therapy is that

A. stimulus discrimination always occurs making it necessary to replicate the exact conditions under which learning took place if the aversion is to occur.

B. stimulus generalisation never occurs, meaning that the person has an aversion to all similar substances to that which was used in the learning situation.

C. the aversion will always generalise to situations similar to that in which the learning took place.

D. **the aversion often does not generalise to situations other than those under which learning took place.**

Answer is D

Explanatory notes

- A is incorrect because stimulus discrimination usually occurs, but not always.
- B is incorrect as it is contradictory. An aversion to similar substances is generalisation.
- C is incorrect as this is not a limitation. If this were the case it would be a strength of aversion therapy.
- D is correct because it is often necessary to replicate the exact conditions of learning, making it unreliable in the patient's normal day-to-day life.

Question 32

Classical conditioning is applied in advertising when

A. **a product is repeatedly paired with an image or stimulus that promotes a positive reaction in the consumer.**

B. a product is paired once with an image or stimulus that promotes a positive reaction in the consumer.

C. use of a product is shown to have a positive consequence for the consumer.

D. use of a product is shown to help a consumer avoid a negative consequence of a behaviour.

Answer is A

Explanatory notes

- A is correct because the repeated pairing of the product, which is initially a neutral stimulus, with a positive image, creates an association between the product and positive feelings about the product. The product then becomes the CS while the positive feelings are the CR.
- B is incorrect. A single pairing will not usually result in conditioning unless it is a particularly powerful image.
- C and D are incorrect because when the consequences of an action are discussed it relates to operant conditioning not classical conditioning. Unlike A and B which both clearly imply the involuntary passive learning that is associated with classical conditioning, C and D imply a voluntary choice.

Question 33

Thorndike (1874–1949) and Skinner (1904–90) each conducted experiments on learning based on an association between behaviour and its consequences. Thorndike conducted his studies using _____ and applied the term _____, while Skinner used _____ and the term _____.

A. **cats, instrumental learning, rats, operant conditioning**

B. cats, operant conditioning, rats, instrumental learning

C. rats, operant conditioning, cats, instrumental learning

D. cats, operant learning, rats, instrumental conditioning

Answer is A

Explanatory notes

- A is correct as Thorndike's used cats in a puzzle box in which the cats became *instrumental* in manipulating the environment to gain a reward. Skinner used the Skinner box with rats (and pigeons) and noted that the organism *operated* upon the environment in order to gain a reward.
- B, C and D are incorrect as the information is in the wrong order.

Question 34

In operant conditioning, punishment is used to _____ behaviour whilst negative reinforcement is used to _____ behaviour.

A. strengthen, strengthen

B. strengthen, weaken

C. **weaken, strengthen**

D. weaken, weaken

Answer is C

Explanatory notes

- A is incorrect because punishment will not strengthen behaviour.
- B is incorrect also because reinforcement will not weaken a behaviour.
- C is correct because in operant conditioning the consequences of a behaviour either weaken or strengthen the likelihood of the behaviour being repeated. Punishment is used to weaken behaviour while any reinforcement, whether positive or negative, will strengthen behaviour.
- D is incorrect for the reasons provided above.

Use the following scenario to answer Questions 35 to 38.

Kristen was a three-year-old who threw tantrums if her mother would not buy her a lolly each time they went to the supermarket. Kristen's mother used to give her the lolly just to keep her quiet as she found her tantrums to be very embarrassing.

Question 35

By giving Kristen a lolly, the mother was _____ the undesirable behaviour of tantrum throwing by _____ reinforcing it.

A. weakening, positively

B. **strengthening, positively**

C. strengthening, negatively

D. weakening, negatively

Answer is B

Explanatory notes

- A is incorrect because the lolly acted as a reinforcer for the tantrum throwing behaviour thus reinforcing the behaviour or increasing the likelihood of the behaviour being repeated.
- B is correct because the lolly strengthened the tantrum throwing behaviour for the reason provided above and therefore positively reinforced it.
- C is incorrect because the behaviour was strengthened through positive reinforcement. It was not a negative reinforcer as the mother was providing a reward for the tantrum throwing.
- D is incorrect because reinforcement will never weaken a behaviour, and it was positive not negative.

Question 36

In this scenario, the mother's behaviour of giving the child a lolly was being _____ due to _____ reinforcement.

A. strengthened, positive

B. weakened, positive

C. **strengthened, negative**

D. weakened, negative

Answer is C

Explanatory notes

- C is correct because the mother's action of giving a lolly in response to the tantrum was strengthened through negative reinforcement. Providing a lolly took away the negative feeling of embarrassment.
- A and B are incorrect as the reinforcement was not positive.
- D is incorrect because the mother's response was strengthened.

Question 37

After a few such trips to the supermarket and with the tantrums continuing, Kristen's mother decided to reward her with a story if she did not throw any tantrums while they were shopping. In time Kristen's tantrums decreased. This is an example of a desirable behaviour being _____ due to it being _____ reinforced.

A. weakened, positively

B. weakened, negatively

C. strengthened, negatively

D. **strengthened, positively**

Answer is D

Explanatory notes

- A is incorrect because the good behaviour was strengthened.
- B and C are incorrect because the reward is a positive reinforcer.
- D is correct because the desirable behaviour of not throwing tantrums was reinforced or strengthened by giving a reward (story) or a positive reinforcer.

Question 38

After a while, Kristen's mother stopped reading her a story each time Kristen behaved herself at the supermarket, and the tantrum throwing returned. In operant conditioning terms, the behaviour that originally had been _____ had now returned as the reinforcement had stopped.

A. reinforced

B. generalised

C. **extinguished**

D. strengthened

Answer is C

Explanatory notes

- A is incorrect as the tantrum throwing had not been reinforced by the story telling.
- B is incorrect as there is no evidence of the behaviour being generalised to some other setting other than the supermarket.
- C is correct as the cessation of the tantrum throwing meant that this behaviour had been extinguished.
- D is incorrect because the tantrum throwing had been weakened not strengthened by the story.

Question 39

Which of the following is a feature of classical conditioning but not of operant conditioning?

A. **The response of the learner is involuntary.**

B. Learning will occur if a response is reinforced.

C. Conditioning occurs as a result of pairing of two events.

D. A behaviour may be weakened by punishment.

Answer is A

Explanatory notes

- A is correct because the UCR is an involuntary response during the acquisition phase, firstly to the UCS and then to the CS.
- B is incorrect because reinforcement relates to operant conditioning.
- C is incorrect because as the pairing of two events occurs in both classical and operant conditioning.
- D is incorrect because punishment relates to operant conditioning.

Question 40

Observational learning is best described as

A. learning that occurs as a result of the consequences of a behaviour or response.

B. **learning that occurs as a result of watching a behaviour and its consequences being experienced by someone else.**

C. learning that occurs as a result of mimicking someone else's behaviour.

D. learning that occurs vicariously.

Answer is B

Explanatory notes

- A is incorrect because this may apply also to operant conditioning.
- B is correct because it is the copying of an observed behaviour that constitutes observational learning.
- C is incorrect because mimicking doesn't have to occur in the learning phase – it is a result of learning.
- D is incorrect because observational learning does not have to be vicarious.

Question 41

Vicarious reinforcement will

A. increase the likelihood of the potential learner watching the modelled behaviour.

B. decrease the likelihood of the potential learner watching the modelled behaviour.

C. increase the likelihood of the observer reinforcing the model's behaviour.

D. **increase the likelihood of the observer replicating the model's behaviour.**

Answer is D

Explanatory notes

- A and B are incorrect because learning is said to have occurred when the learner is motivated to replicate the behaviour, not just to observe the behaviour.
- C is incorrect because learning does not involve reinforcement of the model's behaviour.
- D is correct because if the observer has learned the behaviour of the model they are likely to replicate it.

Question 42

According to Bandura's model of observational learning, the observer must have the ability to replicate the behaviour. This is an aspect of the _____ element.

A. attention

B. retention

C. **reproduction**

D. reinforcement

Answer is C

Explanatory notes

- A is incorrect as it involves the learner paying attention to the model.
- B is incorrect as it involves the learner retaining the information about the observed behaviour.
- C is correct as replication is the same as reproduction in this case.
- D is incorrect as it involves the learner feeling a positive need or desire to replicate the behaviour.

Question 43

Marcus could not remember a time when he did not love to watch and play soccer, and he especially loved to cheer on the Australian team. He always dreamed of one day being a member of the Socceroos and playing in the World Cup. He would diligently practise his technique every day after school and imagine he could hear the crowd chanting his name as he kicked the winning goal. When he made it on to the state team he was enormously excited and proud.

In terms of observational learning, Marcus was motivated to keep playing by both _____ and _____ reinforcement.

A. external, vicarious

B. self-reinforcement, vicarious

C. external, negative

D. **external, self**

Answer is D

Explanatory notes

- A and B are incorrect because vicarious reinforcement occurs when a person is motivated to perform a task because of seeing another person praised or rewarded for their efforts.
- C is incorrect because there is no example of negative reinforcement described in the scenario.
- D is correct because Marcus received external reinforcement by being given a place on the team, and self-reinforcement through his feelings of pride at being chosen.

Question 44

In Harlow's experiments on learning set (1949), the monkeys were required to resolve problems described as

A. positive transfer problems.

B. **two-choice discrimination problems.**

C. learning transfer problems.

D. outcome discrimination problems.

Answer is B

Explanatory notes

- A is incorrect because Harlow used the term ‘positive transfer’ to describe learning that is aided from a previous learning experience.
- B is correct as Harlow presented the monkeys with two choices or problems in order to find a food reward. They experienced a positive transfer of learning as the trials continued.
- C is incorrect as transfer of learning is the term applied to the influence of earlier learning on later learning.
- D is incorrect as Harlow used the term ‘outcome’ to describe the result of an organism having acquired a learning set.

END OF SECTION A
TURN OVER

SECTION B – Short-answer questions

Tip

- *The Assessment Reports consistently show that students perform at a lower level on short-answer questions than they do on multiple-choice questions. This is because of the tendency to provide 'imprecise or incomplete answers' – not incorrect answers. This point highlights how very important it is to spend time on short-answer questions, and on learning the precise definitions of key terms. An answer that is only half right gets no marks. There are no half marks awarded.*

AREA OF STUDY 1 – Memory

Question 1

Explain the information processing system of memory.

2 marks

Solution

Memory is explained in terms of an information processing system as incoming sensory information is not passively received, it is actively processed or encoded so that the information can be stored in, and later retrieved from, LTM.

Mark allocation

- 1 mark for identifying that sensory information must be encoded.
- 1 mark for stating that encoded information can be stored and retrieved.

Question 2

Describe a procedure that could be used to measure the relative effectiveness of recognition versus relearning as a measure of retention.

2 marks

Solution

A possible procedure may be to use two groups of students who have previously been taught material that is to be examined. Group 1 will be given a series of multiple-choice questions and asked to select the correct answers from among a range of alternatives. Group 2 will be asked to read the material and complete a series of learning activities related to the original material, and then given a written test on the material. The resulting scores would then be compared.

Mark allocation

- 1 mark for correctly explaining a process that uses recognition.
- 1 mark for correctly explaining a process that uses relearning.

Tip

- *Any scenario that clearly described the use of recognition as opposed to relearning could be used. The important thing is to make sure that the two are clearly differentiated.*

Question 3

In the box below identify the duration and capacity of each of the types of memory shown.

Type of memory	Duration	Capacity
Sensory memory Echoic		
Iconic		
Short-term memory		
Long-term memory		

4 marks

Solution

Type of memory	Duration	Capacity
Sensory memory Echoic	3–4 seconds	Unlimited
Iconic	0.3 of a second	Unlimited
Short-term memory	18–20 seconds	7 ± 2 pieces of information
Long-term memory	Potentially permanent	Unlimited

Mark allocation

- 1 mark for correctly identifying the duration and capacity of each memory type.

Tips

- *It is also acceptable to say that the capacity is between five and nine bits of information for STM.*
- *It would also be acceptable to use the term 'relatively permanent' for LTM. No mark would be awarded, however, if the student only wrote the word 'permanent' as this does not allow for forgetting.*

Question 4

Explain how the primacy effect differs to the recency effect.

2 marks

Solution

The primacy effect is the serial position effect evident when recall is better for items at the beginning of a list.

The recency effect is the serial position effect evident when recall is better for items at the end of a list.

Mark allocation

- 1 mark for identifying that primacy is for better recall for items at the beginning of a list.
- 1 mark for identifying that recency is for better recall for items at the end of a list.

Tip

- *The term 'better' or 'superior' must be used or implied in the response.*

Question 5

a. Define the term 'state dependent cue' as it is used in VCE Psychology.

1 mark

Solution

A state dependent cue is a retrieval cue that matches an internal physiological or psychological state that an individual experiences at the time a memory was formed to aid in recall.

Mark allocation

- The student must identify that it is cue from an internal physiological or psychological state present at the time the memory was formed, that aids in retrieval, to gain the mark.

b. Outline a research method that would allow a context-dependent cue to be tested. In your answer, clearly show both an experimental and a control condition.

2 marks

Solution

For example, participants may be divided into two groups, experimental and control. Both groups would be asked to memorise a list of nonsense syllables in a room that has been scented with perfume. The control group will then later be tested on the material in a room without the perfume, while the experimental group will be tested in a room that has the same perfume.

Mark allocation

- 1 mark for clearly showing an experimental and control condition.
- 1 mark for correctly identifying an appropriate context related cue.

c. Write an operational hypothesis for your example.

1 mark

Solution

It is hypothesised that first-year university students required to learn a list of nonsense syllables in a perfume-scented room, will show superior recall for the nonsense syllables if tested in a room with the same scent than students who are tested in a room without the scent.

- 1 mark is allocated provided students identify an appropriate population/sample, the independent variable (scent versus no scent) and the dependent variable (number of nonsense syllables recalled).

d. Identify the type of experimental design used in your example.

1 mark

Solution

The above example used the independent groups design.

Mark allocation

- 1 mark for naming the experimental design used in the example.

AREA OF STUDY 2 – Learning

Question 6

a. Identify the **three** key features of behaviour dependent upon maturation.

3 marks

Solution

Behaviours dependent upon maturation

1. will appear at predictable times/ages throughout development.
2. will appear automatically.
3. cannot be progressed/accelerated through practise. (It can only be demonstrated when the organism has reached a sufficient level of maturation.)

Mark allocation

- 1 mark for each of the correctly identified features.

Tip

- *This is an example of why it is important to a) read the question carefully, and b) use your reading time well. A quick reading of this question may suggest that it is asking for a definition of behaviours dependent upon maturation. This is not the case. By taking time to read it carefully, and then use the reading time to think about how you might approach the question, you can avoid making foolish mistakes.*

b. Explain why fixed-action patterns are not considered learned behaviour.

1 mark

Solution

The behaviour appears spontaneously in the organism and is not as a result of past experience.

Mark allocation

- 1 mark for correctly identifying the definition of learning and why fixed-action patterns don't fit this definition.

Question 7

a. Referring to the Watson and Rayner experiments with 'Little Albert', identify the **four** key elements of classical conditioning as they were demonstrated in this case.

4 marks

Solution

- Unconditioned stimulus – loud noise
- Conditioned stimulus – white fluffy rat
- Unconditioned response – fear of loud noise
- Conditioned response – fear of rat

Mark allocation

- 1 mark allocated for each instance of correctly naming the elements and correctly pairing them with the stimulus or response that applied to these experiments.

Tip

- *When addressing the UCR and CR in this case, it is important to name what Little Albert was afraid of. If you simply say 'fear', no mark will be awarded. You must say 'fear of noise' and 'fear of white rat'.*

b. Explain how stimulus generalisation was demonstrated by Little Albert.

1 mark

Solution

Little Albert demonstrated fear of a white rabbit.

Mark allocation

1 mark for identifying the fear of the white rabbit. It would also be acceptable to identify fear of a white mask. Mention of fear of a similar stimulus is an important aspect of this question.

Question 8

Using an appropriate example, explain how schedules of reinforcement may be used to maximise the learning in operant conditioning.

3 marks

Solution

If training a dog to fetch, you might reward the dog every time it brought back the ball. This would be using continuous reinforcement. Then, after the dog had learned to fetch, you would reward it for some instances of bringing back the ball, but not all. This is called partial reinforcement.

Mark allocation

- 1 mark for using an appropriate example.
- 1 mark for correctly identifying and explaining continuous reinforcement.
- 1 mark for correctly identifying and explaining partial reinforcement.

Tip

- *Any example that used continuous reinforcement, partial reinforcement, fixed or variable intervals, or fixed or variable ratios would be acceptable.*

Question 9

If punishment is to be an effective deterrent, what are the **two** main factors that should be applied?

2 marks

Solution

Punishment is most effective if

1. presented immediately after the undesirable behaviour is demonstrated.
2. the level/type of punishment must be appropriate for the situation – not too light or too harsh.

Mark allocation

- 1 mark each for correctly identifying that timing and appropriateness are the two key factors.

Tip

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

Question 10

In terms of observational learning, what is 'vicarious reinforcement'?

1 mark

Solution

If an observer sees a model being rewarded or reinforced for a particular behaviour without experiencing the reinforcement themselves, they are more likely to reproduce the observed behaviour.

Mark allocation

- To gain the mark it is important to clearly identify that the observer is not personally experiencing the reinforcement but is more likely to repeat the behaviour if the model is reinforced.

AREA OF STUDY 3 – Research investigation

Using the following information, answer all of the remaining questions.

Dr Kitchens was an organisational psychologist who was asked to help a hospitality training organisation improve the learning and motivation of their apprentice chefs. He instituted an experimental study to determine which teaching methods would be most beneficial in this setting.

Dr Kitchens randomly selected two groups (n20) of second-year apprentices from a group of 40 volunteers. The first group were taught using the practices that were usually employed within the training firm; that is, they were instructed to follow a set menu and then guided through the cooking session by qualified chefs who advised and corrected them as they worked.

The second group were taught in a slightly different way. At the beginning of each session the apprentices in the second group were asked to select the dishes that they would like to cook from a list of possible menu items, and at the end of each session they were invited to suggest items to be placed on the menus for the following day. This group were also guided through the session in the same way as those in Group 1.

At the end of the trial period each student was subjected to an analysis of achievement and level of motivation, with Group 1 showing a 30% lower score on achievement, and 40% lower score on motivation than Group 2.

A statistical test on these results found that $p < 0.05$.

Question 1

a. Describe a method that Dr Kitchens might have used to randomly allocate the apprentices to two groups.

1 mark

Solution

Dr Kitchens could draw names from a hat with each participant allocated either to Group 1 or Group 2 in turn as their names were drawn.

Mark allocation

- 1 mark allocated for any appropriate random allocation method used.

b. Explain why your method of allocation can be considered random.

1 mark

Solution

Every member of the sample had an equal chance of being allocated to either Group 1 or Group 2.

Mark allocation

- 1 mark for correctly explaining how this is random allocation.

Tip

- *Don't confuse random allocation with random sampling. Make sure that your explanation is very clear.*

Question 2

a. Identify the experimental group in this experiment.

1 mark

Solution

Group 2.

Mark allocation

- 1 mark for correctly identifying Group 2 (it is not necessary to further explain who they were).

b. What is the purpose of using a control group in an experiment?

1 mark

Solution

The control group provides a baseline set of data that can be used as a comparison against the data collected from the experimental group.

Mark allocation

- 1 mark for correctly identifying the purpose of the control group.

Question 3

a. What is the independent variable in this study?

1 mark

Solution

The type of teaching method.

Mark allocation

- 1 mark each for correctly identifying the independent variable.

b. What is the dependent variable in this study?

1 mark

Solution

The level of achievement and motivation of the students.

Mark allocation

- 1 mark each for correctly identifying the dependent variable.

Tip

- *This question allows you just one mark for naming the independent variable and one for the dependent variable. You will get no extra marks for a full sentence, e.g. 'The independent variable was…' so save time and just provide the minimum number of words needed to answer the question.*

Question 4

a. What research design did Dr Kitchens use?

1 mark

Solution

Independent groups.

b. Identify and describe an alternative research design that Dr Kitchens could have used.

2 marks

Solution

Repeated measures.

Dr Kitchens could have used the same group of apprentices in both the control and experimental conditions.

Mark allocation

- 1 mark for correctly identifying the research design.
- 1 mark for correctly describing the research design.
- Students could also identify and describe the matched participants design.

c. Identify **one** advantage of this research design.

1 mark

Solution

This design allows control over relevant participant-related extraneous variables (repeated measures).

This designs ensures that the experimental and control groups are evenly matched on the participant characteristics that have been controlled for (matched participants).

Mark allocation

- 1 mark for correctly identifying an advantage.

d. Identify **one** disadvantage of this research design.

1 mark

Solution

Order effects (repeated measures) are time consuming and more costly (matched pairs).

Mark allocation

- 1 mark for correctly identifying a disadvantage.

Question 5

a. What is meant by the statement, 'A statistical test on these results found that $p < 0.05$.'?

2 marks

Solution

$p < 0.05$ means that a test of significance found that there is a real or statistically significant difference between the mean scores of group, and that there is a probability that the result is 95% more likely to be due to the manipulation of the independent variable than due to chance.

Mark allocation

- 1 mark for the statement of a real or statistically significant difference between the scores.
- 1 mark for the statement that the probability of the result being due to the manipulation of the independent variable and not due to chance is greater than 95%. (It is not sufficient to simply say 'due to the IV' – you must state that this is also not due to chance.)

b. What conclusion could Dr Kitchens infer from this result?

2 marks

Solution

That the results of the study are statistically significant, that the teaching method used for Group 2 was more effective and that this result could be generalised to the wider population from which the sample was drawn.

Mark allocation

- 1 mark for stating that the result is statistically significant.
- 1 mark for stating that the result can be generalised to the wider population.

Question 6

Identify **one** ethical principle that Dr Kitchens should follow in the conduct of this study.

1 mark

Solution

Possible answers include:

Voluntary participation, informed consent, no deception, debriefing, no lasting harm, withdrawal rights.

Mark allocation

- 1 mark for identifying a correct ethical principle.

END OF SOLUTIONS BOOK