

ACCESS EDUCATION

VCE Psychology 2018

Unit 3 & 4 Trial Examination

Assessment Guide

Section A – Multiple Choice Questions

Question 1

D

Myelin facilitates the transmission of information to other neurons.

Question 2

C

That fact that John “decided” the rock was too hot indicates he a made a conscious decision to drop the rock.

Question 3

D

GABA is an inhibitory neurotransmitter which decreases the likelihood of the post-synaptic nerve firing.

Question 4

D

Heart rate would be lowered to normal levels after exercise and not increased.

Question 5

C

The degeneration and loss of neurons in the substantia nigra gives rise to the motor symptoms associated with Parkinson’s Disease.

Question 6

B

Neurotransmitters are released from the terminal buttons in the axon terminal.

Question 7

D

The bladder relaxes, salivation decreases and the pupils dilate.

Question 8

A

Steve would experience a positive psychological response to bungee jumping (eustress) and Jim a negative psychological response to bungee jumping (distress). In both cases the sympathetic nervous system would be activated

Question 9

D

Shock and counter shock are not stages of the General Adaptation Syndrome. The correct stage, in which shock occurs, is the alarm reaction stage.

Question 10

B

Jennifer does not have a fear of all dogs. She is able to discriminate between German Shepherd dogs and other dogs. Her CR occurs only with German Shepherds.

Question 11

C

Response B is incorrect because the CR is not fear of dogs. C is the correct response

Question 12

C

Reinforcement is not required in classical conditioning.

Question 13

B

Veronica cleans her room to avoid the unpleasant stimulus of her mother nagging.

Question 14

A

Observational learning is learning by observing the consequences of others. Learning can occur by watching the reinforcement or consequences necessary for operant conditioning take place in others.

Question 15

C

With regard to observational learning, motivation refers to having the motivation to perform the behaviour (not learn it)

Question 16

D

Remembering a face involves recognition which is MORE sensitive (not less) than remembering a name which is a recall task

Question 17

D

Information is retained for approx. 3-4 seconds in echoic memory which was long enough for Sandra to pay attention to the words.

Question 18

D

A damaged amygdale means that Peter was incapable of developing a conditioned emotional fear response to the dog. He would show no sign of fear although he would have a declarative memory of the dog that bit him.

Question 19

B

Adrenaline plays a role, along with the amygdale, in triggering the hippocampus to strengthen the formation of emotional memories.

Question 20

B

Jack is avoiding/removing the unpleasant stimulus of the fine. This strengthens the likelihood that he will continue the behaviour.

Question 21

C

Neurotransmitters are reduced in Alzheimer's disease.

Question 22

A

It was a controlled process requiring greater mental effort

Question 23

B

Jack could now divide his attention between dribbling and watching his teammates.

Question 24

C

Sleep is a naturally occurring ASC.

Question 25

B

A and D is for a cognitive distortion. C is time orientation. B would indicate perceptual distortions.

Question 26

A

A stimulant would increase beta waves

Question 27

D

The statement is most applicable to the restorative theory.

Question 28

B

Older adults may have no stage 3 and/or 4 NREM during their sleep. Therefore, to say everyone experiences the stages of NREM is incorrect.

Question 29

B

Sleep deprivation affects simple task performance more than complex tasks. Calculating pay would be more complex than the other tasks.

Question 30

C

Kevin may experience amplified emotional responses

Question 31

A

Jetlag is a circadian rhythm disorder.

Question 32

A

Sleep onset insomnia is a dyssomnia.

Question 33

D

Bright light therapy in early in the evening will hopefully delay circadian rhythm so Gary will feel sleepier later in the evening.

Question 34

B

Anxiety is psychological

Question 35

C

Mental health is subjective well-being – not objective.

Question 36

D

This is a precipitating risk factor and the misuse of alcohol is also a biological risk factor.

Question 37

B

Rumination is a psychological risk factor

Question 38

B

Self-efficacy is the only psychological factor present in the choices.

Question 39

C

Rumination involves thought patterns that were impeding her ability to solve problems.

Question 40

D

A phobia is perpetuated by operant conditioning, not classical.

Question 41

B

C and D would reflect normal levels of anxiety

Question 42

D

The level of fear in a specific phobia is irrational. Anxiety is distress only – not eustress.

Question 43

D

CBT is a treatment for specific phobia.

Question 44

B

Contemplation involves thinking about changing.

Question 45

B

This is the only strategy linked to the contemplation stage.

Question 46

D

CBT is a psychological strategy

Question 47

D

This is a repeated measures study.

Question 48

A

Because this was repeated measures and the same rats were used, memory ability would be the same in both conditions and least likely to confound the results.

Question 49

C

Counterbalancing is applicable to a repeated measures design which was not used.

Question 50

C

Bicarbonate is the IV – looking to examine how it effects the DV which is 400m sprint times.

Section B – Short Answer Questions

Question 1

The sympathetic nervous system would have been activated releasing adrenaline causing and increase in perspiration making his hands sweaty (1 mark). The CNS (brain) would have made the decision to kick the snake off his leg and run (1 mark). The somatic nervous system would have been responsible for relaying motor information to his skeletal muscle in his legs allowing him to kick the snake away and run (1 mark).

Question 2

During the altercation which was an emotional experience, adrenaline would have been released. Acting as a neurotransmitter, adrenaline would activate the amygdale (1 mark) which would signal to the hippocampus that long term storage of the event should be strengthened. (1 mark) and long lasting neural networks (memories) are formed (1 mark).

Question 3

- a. *John would suffer from anterograde amnesia (1 mark). The hippocampus is responsible for the encoding and formation (1 mark) of new explicit (declarative) memories (1 mark). John would still retain any old procedural memories and he would be able to learn new procedural memories (1 mark).*
- b. *John would have performed normally on the tests of STM (1 mark). The hippocampus is not associated with the function of STM and therefore STM performance is not affected (1 mark).*
- c. *John would be able to recall events prior to contracting the disease (1 mark). The hippocampus is involved in the formation of LTM but it is not the storage site (1 mark). John could retrieve old memories stored in the cerebral cortex.*

Question 4

- a. *In Mary's primary appraisal, she viewed Year 12 as a challenge (1 mark). Jane viewed it as harm/loss or threatening (1 mark). With regard to the secondary appraisal, Mary feels that she has the resources to cope but Jane feels that she does not and is experiencing stress (1 mark).*
- b. *Any two of the following;*
 - *Hard to test with experimental design - subjective nature of stress response*
 - *May not be conscious of all factors causing stress response*
 - *Some say appraisal isn't necessary for a stress response (have a stress response without thinking about event)*
 - *Doesn't allow for individual variation in progression through stages*
 - *Primary and secondary appraisals are difficult to isolate for study separately (often interact with one another)*
 - *Primary and secondary appraisal can occur simultaneously*
 - *Overlooks physiological responses*
- c. *Sympathetic nervous system*
- d. *Jane could seek help with her study methods or request more help from her teachers. Accept any suitable strategy that deals with the stressor.*

- e. *Jane is in the resistance stage of the GAS (1 mark). Her sympathetic nervous system has remained elevated and cortisol remains elevated in her blood stream (1 mark). One of the effects of prolonged elevated cortisol levels is the suppression of the immune systems (1 mark). Therefore, Jane is more susceptible to bacterial and viral infections as her weakened immune system is less able to combat them.*

Question 5

- a. *Independent groups*
- b. *IV – whether food was under the box with the flashing blue light or different coloured flashing lights (1 mark). DV – rate of learning (1 mark).*
- c. *No Harm principle (1 mark). Monkeys could possibly be harmed by the painful electric shock (1 mark).*
- d. *In experiment 1, the monkeys had learned through operant conditioning (1 mark). When they selected the food from the box with the blue light (Box A) they were positively reinforced with food (not rewarded) (1 mark). This strengthened their behaviour as they learned to repeat the behaviour that resulted in a pleasant outcome (1 mark).
In experiment 2, the monkeys had learned by classical conditioning (1 mark). They had formed an association between the blue light and the painful electric shock (1 mark). The blue light has become a CS bringing about the CR of fear of the blue light (1 mark).*
- e. *The amygdale has a role in processing and regulating emotional reactions as well as the formation of fear responses (1 mark). In experiment 2, the monkeys would be unable to form a classically conditioned fear response (1 mark).*

Question 6

- a. *Prior to going out for dinner Wendy is most likely experiencing NWC. However, after several alcoholic drinks, she has most likely moved along the consciousness continuum towards an ASC (1 mark). In terms of content limitations, her content would be less limited (1 mark). Wendy would have less control over the content of the thoughts entering conscious awareness.*
- b. *An EEG detects, amplifies and records the electrical activity of the brain (1 mark). The brainwaves indicated by the EEG can also indicate our state of consciousness, For example, beta waves would indicate NWC and a high level of awareness and an alert state (1 mark). Theta or Delta brain waves would indicate an ASC (sleep) or possibly a deeply relaxed state (1 mark).*
- c. *One advantage of a sleep diary is that you can quickly collect valuable qualitative and quantitative data (1 mark). Possible disadvantages include;*
- *participants may forget to complete the report*
 - *is the description by the participants accurate?*
 - *are participants stating the truth*
 - *can participants actually remember what occurred (for example – their dreams)*
 - *has information been deliberately omitted?*
 - *Can the researcher accurately interpret the report?*
 - *Any other suitable response*

Question 7

- a. *By giving the control group a placebo or a fake (inert) pill*
- b. *There was no control over the caffeine consumption of the adults. They could maintain normal practices meaning they too may have consumed just as much caffeine or possibly more than the experimental group.*
- c. *Stephen did not use a random sample by choosing volunteers. This may influence generalisability as his sample would not be representative of the characteristics of the population.*
- d. *These results indicated that caffeine decreased the sleep time of the adolescents (1 mark). Most adolescents already experience a circadian phase disorder in the form of a shift in their sleep wake cycle (1 mark). In adolescents, melatonin is not released until 1-2 hours later in the night meaning they don't get tired until later (1 mark). However, adolescents have to get up early for school. Therefore, many adolescents already suffer from partial sleep deprivation (1 mark). Taking caffeine could worsen this sleep deprivation (1 mark). This would increase tiredness during the day affecting their performance at school (1 mark).*
- e. *These adults have developed a delayed sleep phase disorder whereby their sleep-wake cycle is delayed and they get sleepy later (1 mark). Bright light therapy should be given early in the morning (1 mark). This would advance their circadian rhythm (melatonin released earlier) making them sleepy earlier so they can go to bed at a normal hour. (1 mark)*

Question 8

When marking this response, a 'holistic' approach should be taken. Emphasis should be given to the overall quality of the students response. A high scoring response will include the following;

Michael is definitely at risk of developing a mental health disorder. There is a predisposing risk factor of genetic vulnerability. His father suffered from depression meaning that genetically Michael might also be predisposed to this mental health disorder.

Michael also has a few precipitating risk factors that increase the risk of him developing a mental health disorder. He is starting to consume large amounts of alcohol which is a biological precipitating risk factor in the form of substance abuse. A psychological precipitating risk factor is the stress Michael is experiencing from his employment. He is also experiencing financial stress with the additional costs of child support and renting his own place to live. Michael would also be experiencing stress from the breakdown of his marriage and being away from his children. A social precipitating risk factor is the loss of a significant relationship. Michael is now separated from his wife and children and he would be experiencing a loss in the form of attachment and affection.

Michael is at risk of developing a mental health disorder due to the cumulative effect of the risk factors mentioned above. A risk factor can increase in significance when it is combined with other risk factors. Cumulative risk is the aggregate risk to mental health from the combined effects of multiple biological, psychological and social risk factors. The more risk factors there are, the more vulnerable we become to developing a mental health disorder.

As a counsellor trying to improve Michael's resilience, one biological protective factor would be that he maintains an adequate diet and have sufficient sleep. An adequate diet would provide sufficient energy for his daily needs, improve his cognitive functioning and make him less vulnerable to stress. In addition, he would be advised to reduce or eliminate his consumption of alcohol. Sufficient sleep would also allow his mind to function at an optimal level.

A counsellor would also use CBT as a psychological protective factor to help Michael recognise the difference between unhelpful and productive thoughts. He would be encouraged to changing his thinking that leads to negative behaviours. Michael would also be taught some relaxation strategies to help alleviate his symptoms of stress.

As a social protective factor, Michael's parents and friend would be provided with some suggestions and strategies to increase support for Michael and avoid any problems that may arise from isolation.