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**2019**

**TRIAL EXAMINATION**

**VCE PSYCHOLOGY**

**UNITS 3&4**

**ASSESSMENT GUIDE**

**IMPORTANT NOTE**

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#### Section A – Multiple choice questions

**Questions 1, 2 and 3 refer to the following information**

Annie is shopping for material to make a bridesmaid’s dress. She strokes a satin material and loves the smooth feel of it. Having decided on this material, she looks for a suitable colour.

**Question 1**

Which divisions of the nervous system would she be using when she was assessing the texture of the material?

**Answer: A.** Central Nervous System and Somatic Nervous System.

**Question 2**

Which divisions of the nervous system would she be using when she was assessing the colour of the material?

**Answer: D.** Central Nervous System and Sensory Nervous System only.

**Question 3**

Annie begins to feel excited at the prospect of being a bridesmaid, choosing the material has made it real for her. Which of the following responses are likely to be occurring for Annie?

**Answer: A.** the heart-rate increases and her pupils dilate.

**Question 4**

Stu received a blow on the head when he fell from his bike. MRI scans revealed damage to his cerebral cortex in the frontal lobes. Which of the following impairments may Stu experience?

**Answer: B.** Difficulty with controlling movement of his body and difficulty with planning and organisation.

**Questions 5 & 6 refer to the information below**

Jo is a psychology teacher who is studying for her Master’s in Psychology. She is researching the effects of sleep deprivation on student performance in tests. She is using members of the three Units 1 & 2 VCE Psychology classes as participants. She has received ethics approval for the study.

She advises participants that they do not need to take part unless they wish to and that they may discontinue their involvement at any stage. She gets them to sign a document indicating that they are willing to participate and assures them that no identifying information will be included in the report.

**Question 5**

What form of sampling has Jo used in this case?

**Answer: C.**convenience sample.

**Question 6**

Jo knows that a double-blind design is useful to eliminate experimenter and participant expectations. In this research she would find it possible to use a ‘blind’ design in order to eliminate

**Answer: C.** experimenter expectations only.

**Question 7**

Which of the following is a **false** statement about neurotransmitters?

**Answer: C.** One neurotransmitter may have excitatory or inhibitory effects but not both.

**Question 8**

Parkinson’s Disease is characterized by uncontrollable tremors in the hands. This is thought to be due to

**Answer:** **A.** Deficiency of dopamine in the substantia nigra.

**Questions 9, 10 and 11 refer to the information below**

Jett passed his exams late last year and qualified as a Junior Doctor. For the last four months, working as an intern at a busy hospital, he has been working up to 80 hours per week and he still has to study when he goes home. As autumn turns to winter, he finds that he is suffering from frequent colds and despite having the ‘flu injection, he now has symptoms of influenza.

**Question 9**

Which of the following is a probable explanation for Jett’s health concerns?

**Answer: D.** All of the above responses help explain Jett’s health concerns.

**Question 10**

Jett consults his mentor, a doctor who has been through the same experience. Together they plan a timetable that includes work, study and also meditation and exercise.

To Jett’s surprise, after a few weeks of this program he is managing to remain healthy and cope with all the demands of his life.

The strategies that Jett has used can be described as

**Answer: B.** approach strategies that are emotion- and problem-focused.

**Question 11**

Jett’s exercise program – part of this strategy – helps control his emotions because

**Answer:** **D.** All of the above helped reduce his level of anxiety.

**Question 12**

Acculturative stress is likely to be experienced by

**Answer: A.** any person having to adjust to the different social expectations and environmental factors in a new place of residence.

**Questions 13, 14 and 15 refer to the following information**

I **– Psychological effects**

II **– Physiological effects**

III **– Human subjects**

IV **– Animal subjects**

**Question 13**

Selye’s research involved

**Answer:** **D.** II and IV only

**Question 14**

Lazarus and Folkman’s research involved

**Answer: B.** I and III only

**Question 15**

Appropriate research to develop understanding of the cause and nature of stress and its treatment would be likely to include investigation of

**Answer: A.** I, II and III

**Questions 16 and 17 refer to the information below:**

Tran is ranked in the top ten table-tennis players in the country. He practises for several hours each day to make sure his performance is at the best of his potential. One day, on the way to training, he fell from his bike and broke his wrist! Although his physical recovery was complete within two months, he found that he required many more weeks of training to return to his previous standard of play.

**Question 16**

The neurological process that was involved in his original learning of the table-tennis skills was

**Answer:** **C.** long-term potentiation, in which new connections between neurons had been created.

**Question 17**

After his injury, Tran found that his skill had decreased.

The neurological process that may have contributed to his difficulty is

**Answer:** **B.** long-term depression, in which unused synapses have been destroyed (pruned).

**Questions 18, 19 and 20 refer to the information below**

Roger always puts on his brown leather jacket before he goes outside and drives to the shops. Before leaving the house, he gives his dogs a dried meat treat. When he is going into the garden, he puts on his grey windcheater and the dogs come with him.

At first, whenever he put on any jacket, the dogs ran to the cupboard where the treats are stored, now, however, when he puts on the windcheater, the dogs run to the back door.

**Question 18**

The dogs running to the ‘treat cupboard’ when he puts on the leather jacket can be explained as

**Answer: D.** operant conditioning, where putting on the jacket is the antecedent stimulus.

**Question 19**

Running to the ‘treat cupboard’ when Roger puts on the windcheater is an example of

**Answer:** **D.** Stimulus generalisation in operant conditioning.

**Question 20**

Running to the back door when Roger puts on the windcheater is an example of

**Answer: B.** Stimulus discrimination in operant conditioning.

**Questions 21, 22 and 23 refer to the following information**

Cho is having her 18th birthday in a few weeks. She is organizing a gathering on the day and wishes to invite all the people who performed in the Middle-School production of “The Lion, The Witch, and the Wardrobe”, in which she played Lucy, when she was in Year 8.

She tries to write out the cast-list, but she can’t recall the names of people who played some of the minor characters.

She asks her mother for help and her mother finds a photograph of the curtain call – when all characters are on stage taking the final bow.

Cho still has some difficulty because although she recognises the faces, she still can’t recall all the names. Her mother gives her a copy of the school magazine that lists all members of the middle school that year; Cho can soon remember which name fits which person in the cast.

**Question 21**

Which measure of retention was Cho using when she first tried to write out the cast list?

**Answer: C.** Free recall

**Question 22**

Which measure of retention was Cho using when she tried to write out the list using the photograph to help her recall?

**Answer:** **A.** Cued recall.

**Question 23**

Which measure of retention was Cho using when she was looking at the list of names and remembering who was in the play.

**Answer: A**. Recognition.

**Question 24**

In the serial position effect, a list of words has been read to participants. Only the primacy effect is shown when they are asked to recall the words. It is most likely that participants have been asked to recall the words

1. immediately after learning; in the order in which they were presented.
2. with a 30 second delay after learning; in random order.
3. with a 30 second delay after learning; in the order in which they were presented.
4. immediately after learning; in random order.

**Answer: A.** I, II or III

**Question 25**

The part of the temporal lobe most involved with attaching emotion to newly formed memories is the

**Answer: B.** amygdala.

**Question 26**

According to the multi-store model of memory, explicit memories of previous experiences and well-learned facts are stored in long-term memory as

**Answer: C.** declarative memories

**Question 27**

One of the earliest symptoms of Alzheimer’s Disease is difficulty forming new memories. This is due to

**Answer: C.**  damage to the hippocampus causing anterograde amnesia.

**Question 28**

Eyewitness testimony is responsible for many convictions for serious crimes. In 2018 across the USA, 23 people who had been convicted on the basis of eyewitness testimony were found to be innocent when DNA evidence was analysed.

A major reason for the fallibility of eyewitness testimony is

**Answer: D.** all of the above are common causes of failure.

**Question 29**

Lee has been on the day shift for the past three months but today she has been rostered on the evening shift as well. As a result of this, she realises that she has been awake for the last 17 hours. Knowing that her reflexes and judgement may be impaired, she is extremely watchful as she rides her bike home.

The extent of impairment Lee is experiencing would be approximately equivalent to having a blood-alcohol level of

**Answer: B.** .05

**Question 30**

Lee’s employer had deliberately moved her from the day shift to the evening shift, what is the reason that the move to a later shift is preferred to a move to an earlier shift?

**Answer: A.** Her day is extended so that the change is more in line with her circadian cycles.

**Question 31**

A person in Normal Waking Consciousness (NWC) is least likely to

**Answer: C.** show erratic levels of emotional response.

**Question 32**

People sometimes attempt to change their level of consciousness by using psycho-active substances, both legal and illegal.

Which of the following correctly pairs a substance and its effects on a person who takes it?

**Answer: B.** Depressants; decrease nervous system activity.

**Question 33**

Georgie is undergoing an EEG as she is daydreaming.

At this stage, the EEG will probably be showing

**Answer:** **B.** beta and alpha waves.

**Question 34**

EEG, EMG and EOG are all used to establish a person’s level of consciousness. When in a REM sleep, a person would show.

**Answer: C.** low levels of electrical activity on EMG, high levels on EOG and EEG.

**Question 35**

There are several theories of why we sleep. Which of the following does **not** provide evidence in support of the ‘Restoration Theory’?

**Answer:** **A.** Hunting animals sleep for many hours per day; prey animals sleep for few hours in short spells.

**Question 36**

During sleep, we go from wakefulness, through deeper and deeper stages on N-REM sleep and then back up through stages 3 and 2 of N-REM to be in REM sleep.

For a healthy adult, how many of these cycles will occur in one night’s sleep?

**Answer:** **B.** 4 or 5

**Question 37**

If deprived of sleep for 24 hours, it is likely that a normal healthy adult will experience

**Answer:** **C.** drooping eyelids.

**Question 38**

The typical adolescent sleep-cycle, when compared to an adult is likely to be characterised by the adolescent

**Answer: A.** going to bed later and sleeping much later.

**Question 39**

In research involving sleep patterns, participants will typically be asked to keep a ‘sleep diary’, recording their time of going to bed, frequency and duration of awakenings and their perceived quality of sleep and time of final awakening.

The type of data this will produce is

**Answer: A.** qualitative, quantitative, subjective and objective.

**Question 40**

“To sleep, perchance to dream”. So said Hamlet, Prince of Denmark! Was he correct?

What are the chances of a normal, healthy adolescent or adult dreaming during a good night’s sleep?

**Answer:** **D.** 100%! We may not always remember, but we always dream.

**Question 41**

Which of the following is an accurate statement regarding the sleep pattern of a normal healthy newborn baby?

**Answer: B.** They will sleep for about 16 hours per 24 hour period and have 50% of this as REM sleep.

**Question 42**

Sleep is a necessary process for well-being in humans and animals. It is controlled by the brain. Which structures in the brain are responsible for our sleep-waking cycle?

**Answer: B.** Suprachiasmatic nucleus in the hypothalamus.

**Question 43**

Which of the following would be characterised as a mental disorder?

**Answer: C.** Major depression.

**Question 44**

Research into Parkinson’s Disease (PD) in Pennsylvania, USA, indicated that over 4 years from 1999-2003, the incidence of PD was as follows:

African Americans: 23 per 100 000 population.

White Americans: 45 per 100 000 population.

These figures would support a hypothesis that:

**Answer:** **D.** There is a significant difference between African Americans and White Americans in terms of either predisposing or protective factors for PD.

**Question 45**

The biopsychosocial model is preferred for assessment, diagnosis and intervention for Mental Disorders. Which of the following does **not** correctly match the category with the factor?

**Answer:** **B**. Psychological; long term substance abuse.

**Question 46**

The biopsychosocial approach to mental health is considered to be “best practice” because it

**Answer: A.** Is a holistic approach, matching the individual needs with appropriate interventions.

**Question 47**

Cognitive Behavioural Therapy (CBT) is a psychotherapeutic technique that is used to treat many mental disorders. It is especially useful in treating the many anxiety and anxiety-related disorders. It works on the basis of

**Answer: D.** all of the above strategies are involved in CBT.

**Questions 48 and 49 refer to the information below**

Maria has always been frightened of spiders. Now that her son, James, is a toddler, she makes a great effort to be casual around spiders and will simply put a cup over the spider and ask her husband to put it outside when he has the chance.

**Question 48**

Maria’s strategy is very sensible because otherwise James may also become phobic about spiders through

**Answer: C.** Observational learning and classical conditioning.

**Question 49**

Maria consults a psychologist to help her deal with her phobia. Which form of treatment is likely to be successful for her?

**Answer: C.** Systematic desensitization.

**Question 50**

Social support can be crucial in helping people to deal with, or to avoid stress and to maintain good mental health.

It can do this by providing

**Answer: A.** Problem-solving strategies and emotion-focused strategies.

**SECTION B – Short answer section:**

*As long as the meaning of a word is clear and unambiguous, marks are not deducted for spelling errors* ***except*** *as specified in this guide.*

*Where part of a sample answer is shown in parentheses, it is for information and would not be required in a student response.*

**Question 1**

1. Explain what is meant by the term *spinal reflex.* 2 marks

**Answer:** *A sensation (usually painful) is taken from a sense receptor, via a sensory neuron to the spinal cord. Within the spinal cord the neural impulse is transferred to a motor neuron (usually via an interneuron) which takes the nerve impulse to the muscle causing a movement. (The brain is not involved).*

**Marking Protocol:**

**2 marks:** Identification of connection of sensory and motor neurons connecting within the spinal cord.

**1 mark:** Description fails to identify *sensory (afferent)* or *motor (efferent)* neurons.

1. With reference to the *patellar reflex* (knee-jerk reflex) describe how this reflex is shown. 2 marks

**Answer:** *A sharp tap just under the knee-cap (on the patellar tendon) causes the lower leg to kick forward. When the tap occurs, a sensory neuron carries a nerve impulse to the spinal cord, this neuron synapses directly with a motor neuron which carries a signal causing the (quadriceps) muscle to contract and the ‘kick’ to occur.*

**Marking Protocol, to maximum 2 marks:**

**1 mark:** Tap (stimulus and kick (response) are identified.

**1 mark:** sensory and motor neuron identified.

**1 mark:**  Monosynaptic nature of the reflex identified.

1. What is the evolutionary benefit of a spinal reflex. 1 mark

**Answer:** *Because the signal does not have to travel to the brain and then to the muscles, the reflex is made more quickly.*

**Marking protocol:**

**1 mark:** Increased speed of response.

**Question 2**

On the diagram of the human Central Nervous System (CNS) below, label the following structures:

Frontal Lobe; Parietal Lobe; Temporal Lobe; Occipital Lobe; Cerebellum; Spinal Cord. 3 marks





**Answer:**

*Frontal Lobe (1); Parietal Lobe (2); Temporal Lobe (3); Occipital Lobe (4); Cerebellum (5); Spinal Cord (6).*

**Marking Protocol:**

**½ mark:** For each structure correctly labelled (rounded down)

**Question 3**

Molecules of neurotransmitters GABA and glutamate each act as ‘*keys’ in the ‘lock-and-key’* mechanism of neural transmission, yet they have opposite effects, with one being the major *excitatory* neurotransmitter and one being the major *inhibitory* neurotransmitter. Explain this apparently contradictory effect by answering the questions below.

The following terms may be useful in your responses, they are provided for information but should be used correctly in your responses:

neurotransmitter molecules key

presynaptic neuron lock

postsynaptic neuron receptor sites

axon terminal synaptic cleft (or gap)

dendritic membrane gate

positively charged ions negatively charged ions

GABA glutamate

1. Which is the major excitatory neurotransmitter?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 mark

**Answer:** *Glutamate*

**Marking protocol:**

1. **mark:** Glutamate
2. Describe what is meant by the *‘lock-and-key’* mechanism. What is the ‘gate’ that is opened by the key in the lock? 4 marks



**Answer:** *Molecules of neurotransmitter from the axon terminal of the pre-synaptic neuron are released into the synaptic cleft. They then enter, as keys, into appropriately shaped receptor sites, locks, in the dendritic membrane of the post-synaptic neuron; with the ‘key’ in the ‘lock’ gates are opened and charged atoms (ions) can pass into the membrane and alter the charge on the dendrite of the post-synaptic neuron.*

**Marking protocol:**

**4 marks:** Response demonstrates full understanding of the process and clearly identifies

* + - * Neurotransmitter molecules as keys and receptor sites as locks
      * Specific molecule (shape) as key to open specific gate
      * Dendritic membrane as location of gates
      * Ions (e.g.Ca++; Cl-) as charged atomic particles

**3 marks:** Response lacks clarity on one of the above

**2 marks:** Response addresses the question, but is limited in explanation

**1 mark:** Response provides very limited accurate information

1. How can GABA and glutamate have opposite effects? 2 marks

**Answer:** *Receptor sites that respond to GABA (GABAA) allow negatively charges particles (Chloride ions) to enter the membrane, (or in the case of GABAB expel positively charged ions of potassium [K] from the membrane) thus reducing the electrical charge and making it less likely that the neuron will fire an action potential. Receptor sites for Glutamate by opposite action with positively charged ions increase the electrical charge.*

**Marking protocol:**

*N.B. It is understood that this is a difficult question, VCE students should certainly not be expected to answer in the detail shown in parentheses.*

**2 marks:** Students indicate reduction of charge on post-synaptic neuron due to GABA opening specific gates and causing reduction of electrical charge.

**1 mark:** GABA reduces charge on post-synaptic neuron.

**Question 4**

Evie and Kym both been working day shift in a supermarket that is open 24 hours per day. At the end of a three-month roster, the floor manager informs them that in the new roster, Evie will be working the night shift (midnight to 8.00 am) and Kym will be working the evening shift (4.00 pm to midnight).

1. Predict and explain the feelings and performance of both girls during their first week on the new roster.

4 marks

**Answer:** *Evie: Will feel tired and unmotivated and her performance will be less efficient than usual. This is because shortening her day causes to be out of phase with her circadian rhythm of approximately 25 hours.*

*Kym: Will feel as normal and her performance will be as efficient as usual. This is because lengthening her day causes to be close to being in phase with her circadian rhythm of approximately 25 hours.*

**Marking Protocol:** 2 marks for each girl.

**1 mark:** for indicating the type of change (positive/no change [Kym] or negative [Evie]).

**1 mark:** for relating to circadian rhythm.

1. On the axes below draw a diagram of Selye’s General Adaptation Syndrome (GAS). Label all stages. 3 marks

****

**Marking protocol:** 1 mark for each STAGE; Alarm; Resistance; Exhaustion. N.B. shock and countershock are not stages.

1. If the stressor continues to the final stage, describe the chemical imbalance in the bloodstream. What are some likely outcomes? 2 marks

**Answer:** *In the exhaustion stage mental and/or physical breakdown may occur. For example, depression infections from reduced immunity. This is because excessive cortisol in the bloodstream will lead to reduced white blood cells (leucocytes) which fight infection.*

**Marking protocol:**

**1 mark:** Increased cortisol in bloodstream.

**1 mark:** Two specific examples of mental and/or physical problems.

**Question 6**

It is possible that an altered state of consciousness (ASC) can be identified from *level of self-control*. Explain this statement and give an example. 2 marks

**Answer:** *In an alcohol-induced ASC a person tends to have reduced inhibitions and may behave in ways that would normally be unthinkable to them.*

**Marking protocol:**

1. **mark:** identification of the ASC
2. **mark:** description of example behaviour

**Question 7**

1. Jack has been picked in the senior team for his first game of AFL this weekend. He is experiencing a level of arousal caused by excitement about the opportunity.

Indicate the way in which Lazarus and Folkman’s model may have applied to Jack’s situation:

1 + 1 = 2 marks

**Answer:** *Jack is experiencing* ***Eustress*** *and has interpreted the imminent debut match as a* ***challenge*** *or as a* ***positive life event****.*

**Marking protocol:**

**1 mark:** Eustress **or** Any positive appraisal

1. Secondary appraisal.

**Answer:** *Jack has considered what will happen as he plays and is confident that he has the resources (skills, training and fitness) to succeed.*

**Marking protocol:**

**1 mark:** Has resources (will not feel stressed)

1. Joel, in another AFL side, has also been picked to play his first senior game this weekend. He is experiencing a level of arousal caused by worrying that he may not play well.

Indicate the way in which Lazarus and Folkman’s model may have applied to Sophie’s situation:1+1 = 2 marks

1. Primary appraisal.

**Answer:** *Joel is suffering* ***distress****. He has appraised the game as a* ***threat.***

**Marking protocol:**

1. **mark:** Distress **or** Any negative appraisal

1. Secondary appraisal.

**Answer:** *Joel has thought about the game and he is concerned that he does not have the resources (skills, training, fitness) to succeed.*

**Marking protocol:**

1. **mark:** Inadequate resources

**Question 8**

Tran has been on placement in Warrnambool for 3 weeks as part of his teacher training. During this time, his dog, Buster, has been staying with Tran’s mother, who always warms Buster’s food in the microwave. When Tran takes Buster home, Buster begins to drool and dribble whenever Tran uses his microwave.

Using the language of the three-phase model of classical conditioning:

1. Explain how Buster acquired the ‘drooling’ habit. 3 marks

**Answer:** *Before conditioning: microwave noise is Neutral Stimulus (NS), food is Unconditioned stimulus (UCS). Food causes Buster to drool (salivate) – Unconditioned response (UCR).*

*During conditioning: NS is paired with UCS and UCS continues to cause UCR.*

*After conditioning: Microwave noise is now a Conditioned stimulus (CS) and salivation due to microwave noise is a Conditioned response (CR).*

**Marking protocol:** 1 mark for correct description of each of the three phases – maximum 3.

1. Explain why Buster drools when Tran uses his own microwave. 1 mark

**Answer:** *Tran’s own microwave noise is acting as a CS – stimulus generalisation.*

**Marking protocol:**

**1 mark:** Stimulus generalisation.

1. Describe how Tran might stop Buster’s drooling behaviour. 1 mark

**Answer:** *Tran continues to use his own microwave, but never gives Buster food within several minutes of the microwave noise. Soon the drooling response will be extinguished.*

**Marking protocol:**

**1 mark:** Extinction described. (need not be named).

**Question 9**

What is meant by the ‘three-phase’ model of operant conditioning. Explain with the use of an example. 4 marks

**Answer:** *Tran wants to train Buster to sit at the edge of a pavement before crossing a road.*

*Antecedent (stimulus): On a walk, Buster comes to the edge of the pavement; Tran says “Sit”*

*Behaviour: Tran pushes Buster’s hindquarters to the ground, when Buster stays seated, Consequence: Tran gives him praise (positive reinforcement).*

*This is repeated at the edge of the pavement each time until Buster sits without a command. (Reinforcement should continue intermittently)*

**Marking protocol**

**4 Marks:** Each phase correctly explained and exemplified

**3 Marks:** Two phases explained and exemplified

**2 Marks:** One phase explained and exemplified

**1 Mark:**  No example given but explanation of phases is correct

**Question 10**

After a tragic event when a driver who had taken drugs drove into a pedestrian mall and killed and injured many people, the coroner asked that witnesses should be taken to the scene of the tragedy and then make sworn statements about their memories of the event.

Explain why the coroner took this action, rather than simply asking them to recall the events in court. 3 marks

**Answer:**  *In order to make their recall of events more accurate and more detailed. Memories are retrieved better when the environment – internal and external – in which they are being retrieved is similar to the environment in which they were formed. Returning to the scene reinstates the external environment, context, and the internal emotions, state, in which memories were formed.*

**Marking protocol:**

**1 mark:** State-dependent cues

**1 mark:** Context-dependent cues

**1 mark:** Relationship between environment and quality of retrieval

**Question 11**

Lydia is teaching her son, Jake aged 5, how to beat egg-whites into a froth to make meringue. She is using a hand-whisk and a large bowl.

Outline the steps in observational learning that Lydia could use to teach Jake. 5 marks

**Answer:** *Attention****:*** *Lydia should beat the egg herself, whilst ensuring that Jake is watching carefully (talking through the actions helps e.g. “See how I flick the whisk around and around the bowl in the egg-whites).*

*Retention: Lydia asks Jake to imagine himself whirling the whisk around in the bowl.*

*Reproduction: Lydia assures Jake that he will be able to do the job when the time comes.*

*Motivation: Lydia asks Jake if he will help her make more meringues.*

*Reinforcement: When Jake has done the task Lydia praises him (and gives him a meringue!)*

**Marking protocol:**

**1 mark:** For each of the underlined stages above appropriately identified.

**Question 12**

Milton has been diagnosed with chronic depression.

1. Complete the table below with at least one appropriate entry in each cell, to show how different factors might be influencing Milton’s mental health. 7 marks

|  |  |  |  |
| --- | --- | --- | --- |
|  | Biological | Psychological | Social |
| ***Predisposing Risk***  ***Factors*** | *Genetic factors* | *Personality characteristics* | *Isolation* |
| **Precipitating Risk**  **Factors** | *Malnutrition* | *Emotional abuse or*  *neglect* | *Stressful life*  *circumstances* |
| ***Perpetuating Risk***  ***Factors*** | *Use of alcohol or*  *drugs* | *Attachment issues* | *Low self-efficacy* |
| **Protective**  **Factors** | *Physical fitness* | *High self-awareness* | *Strong support*  *network* |

**Marking protocol:**

**½ mark:** For an appropriate entry in each of the 14 remaining cells in the table – rounded up

1. Using information from the table you completed above, explain the concept of *cumulative risk*. 2 marks

**Answer:**  *Cumulative risk. Although each factor may contribute to the onset, severity and duration of the mental health condition, the overall effect may be much greater than might appear because of interactions among the factors to magnify the effect of each one.*

**Marking protocol:**

**1 mark for each of:** Interaction among factors. Magnifying effects.

**Question 13**

For her Practical Investigation in VCE Psychology, Lucie is investigating the relationship between caffeine intake and academic performance for Year 11 students.

She devises a scale where caffeine intake is measured as follows:

1 cup tea 1 unit

1 chocolate lolly 2 units

1 cup instant coffee 3 units

1 cup barista-made coffee 5 units

1 can Energy Drink 8 units

She creates a questionnaire that all participants complete and gains permission to access their school exam scores in December.

1. Suggest a possible hypothesis for Lucie’s study. 2 marks

**Answer:** *That for Year 11 students, a moderate caffeine intake on a regular basis will lead to improved academic performance when compared with either a low intake or a high intake. (Either or both conditions would be considered appropriate)*

1. Indicate **two** ethical issues that Lucie must consider and suggest how she might address them for this specific study. 2 marks

**Answer:** *Informed consent: All students will be under the age of 18 but all have reached the age at which they can make informed judgements. It would be appropriate for informed consent to be given by students and guardians.*

*Withdrawal rights: All students must be informed that they may stop completing the questionnaire at and time and even if they have submitted it, they may ask that their results not be used in the analysis.*

**Marking protocol: 1 mark:** For **each** ethical consideration identified with an appropriate strategy suggested.

*N.B. Any appropriate ethical consideration would earn a mark.*

**Question 14**

Your Uncle Joe has been a heavy smoker for many years. Each winter he suffers from respiratory diseases and these appear to be getting worse, though at present Joe denies that this has anything to do with his smoking. Knowing that you are studying VCE Psychology, your Aunt Grace asks you if you can help devise a plan to help Joe to quit smoking.

Outline the stages of the *transtheoretical model* and indicate how you would help Grace to guide her husband on the road to quit smoking. 10 marks

**Answer:** *Six stages of the transtheoretical model:*

1. *Pre-contemplation: Joe is currently in this stage where he denies that there is a problem.*
2. *Contemplation: in order to get to this stage you and Grace need to educate Joe. Information leaflets from the ‘Quit’ campaign will help; you can research the negative effects of smoking in the library and talk to Joe about your findings. You could estimate the costs, over a full year, of smoking 20 ($25.00) or 40 ($50.00) cigarettes a day for a year and then indicate items/experiences he could purchase for $9125.00 or $18250.00.*
3. *Preparation: Once Joe had recognised that there was an issue, he agreed to try to do something about it. With Grace’s help he would find a psychologist who offered treatment in this area and make an appointment.*
4. *Action: Joe is regularly attending his appointments and is following the homework activities (through CBT), Grace can support this progress.*
5. *Maintenance: For the last six months, Joe has been attending his psychologist appointments and has not smoked a cigarette.*
6. *Termination: Joe continues to avoid smoking, but the psychologist appointments are no longer necessary.*

**Marking protocol:**

Students adequately address each of the content items.

Students use appropriate examples.

9-10 marks: A standard that is the highest expected from a VCE student.

7-8 marks: A standard to be expected of no more than 30% of VCE students.

5-6 marks: All criteria are addressed at an adequate level for a VCE student.

3-4 marks: Some criteria are inadequately addressed.

1-2 marks: Only one criterion adequately addressed or all are poorly addressed.

0 marks: No criterion is appropriately addressed.

**This response to be assessed according to the following criteria (VCAA):**

* Identification and explanation of formal psychological terminology relevant to the question.
* Use of appropriate psychology terminology.
* Discussion of relevant psychological information, ideas, concepts, theories and/or models and the connections between them.
* Analysis and evaluation of data, methods and scientific models.
* Drawing of evidence-based conclusions and explanation of limitations of conclusions.