

VCE Psychology 2016
Unit 3 & 4 Trial Examination
Multiple Choice Answer Sheet

Name: _____
Answer each question by placing a cross (x) in the appropriate square.

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Section A – Multiple Choice Questions

Question 1

An individual with Wernicke's Aphasia was being asked some questions by a psychologist. In responding to the questions, it is most likely that the individual would

- A. comprehend the meaning of the questions and respond with meaningful speech that is slow and deliberate.
- B. not comprehend the meaning of the questions and respond with meaningful speech that is slow and deliberate.
- C. comprehend the meaning of the questions and respond with fluent speech that is meaningless.
- D. not comprehend the meaning of the questions and respond with fluent speech that is meaningless.

Question 2

Stephen started a new job that involved night shift work and he had difficulty adjusting to a change in sleep patterns. He was struggling to stay asleep and was experiencing sleep deprivation. His wife commented that he was becoming a lot more irritable than usual. This is likely due to a lack of

- A. Stage 3 sleep.
- B. Stage 4 sleep.
- C. REM sleep.
- D. deep sleep

Question 3

Bill has just commenced work as a policeman and was called out to his first suspected break in at a factory. As they arrived at the factory, Bill was fully focused on the situation at hand to the point where he did not even recall the message over the radio as they arrived. Such a heightened level of awareness can be classified as

- A. an ASC
- B. NWC
- C. an automatic process
- D. selective attention

Question 4

Research indicates that most of our dreaming occurs during

- A. stages 1 and 2 NREM sleep.
- B. stages 3 and 4 NREM Sleep.
- C. REM sleep.
- D. slow wave sleep

Questions 5 and 6 relate to the information below

Jacinta was 11 years old when she began to play basketball. When she first started playing, Jacinta had to watch the ball all the time as she dribbled down the court. When she wanted to pass the ball she had to stop dribbling and look up at where her teammates were. Eventually, after a great deal of practice, Jacinta is now able to dribble the ball without looking and can pay attention to where her teammates are to pass them the ball. This improvement is because

Question 5

- A. dribbling was initially a controlled process requiring little mental effort and it has become an automatic process.
- B. dribbling was initially an automatic process requiring little mental effort and it has become a controlled process.
- C. dribbling was initially a controlled process requiring a greater mental effort and it has become an automatic process.
- D. dribbling was initially an automatic process requiring greater mental effort and it has become a controlled process.

Question 6

Jacinta's ability to now pass the ball whilst looking at her teammates is because

- A. she can selectively attend to dribbling whilst focusing her attention on where her teammates are.
- B. both dribbling and watching her teammates have become controlled processes allowing divided attention.
- C. dribbling has become a controlled process allowing her to divide her attention.
- D. dribbling has become an automatic process allowing her to divide her attention.

Question 7

An individual with spatial neglect syndrome can also be described as

- A. having an attentional disorder.
- B. not being able to see and pay attention to the environment on their left.
- C. not being able to see and pay attention to the environment on their right.
- D. failing to pay attention to the environment on their left or right.

Question 8

During a period of daydreaming, which of the following would **not** be expected to occur?

- A. an increase in content limitations.
- B. a decrease in awareness of the external environment.
- C. a distortion in the perception of time.
- D. a shift in awareness to internal thoughts.

Questions 9 and 10 refer to the following information

Ray was attending a sleep laboratory where the researcher was using an EMG, EOG and EEG to study his sleeping patterns and measure various physiological responses whilst Ray was asleep.

Question 9

During a period of REM sleep, it is most likely that the researcher would have observed

- A. an increase in electrical conductivity of the brain as shown by beta like brain waves on the EEG.
- B. rapid eye movement on the EOG.
- C. an increase in electrical activity on the EOG.
- D. a decrease in the electrical conductivity of the muscles on the EMG.

Question 10

Throughout a sleep cycle the researcher would most likely have observed which of the following patterns on the EEG

- A. mainly delta waves in stage 3 sleep.
- B. a single high amplitude wave in stage 1 sleep.
- C. a rapid burst of high frequency brain activity during stage 2 sleep.
- D. the presence of a K complex during slow wave sleep

Question 11

Sally has been working very hard to try and gain a promotion at her place of employment. She has not been sleeping very well in addition to staying up late at night. Her daughter said she is sleep deprived and could possibly experience REM rebound. Which of the following **best** explains the concept of REM rebound?

- A. the need to make up for lost REM sleep when deprived of sleep.
- B. after a period of REM sleep deprivation, there is a need to make up for lost REM sleep the next time you sleep.
- C. when deprived of REM sleep, you spend more time in REM sleep the next night.
- D. after a period of REM sleep deprivation, there is a need to make up for lost REM sleep the next time you sleep to consolidate procedural memories.

Question 12

Jennifer had an accident whereby she fell off her horse and hit her head on a rock. The doctor determined that she had suffered some brain damage to her left frontal lobe. Which of the following symptoms displayed by Jennifer would have most likely provided further evidence that the diagnosis of the doctor was accurate?

- A. Jennifer only brushed the left side of her hair.
- B. Jennifer had speech that was slow and deliberate.
- C. Jennifer had trouble locating a pencil on the table when asked to pick it up.
- D. Jennifer had trouble writing her name with her left hand even though she was left handed.

Question 13

Jason received an eye injury at work and as a result of the injury he had to wear a patch over his left eye. When looking directly at an object, the image of the object would be registered in Jason's

- A. right occipital lobe only and he could verbalise what he was looking at.
- B. left occipital lobe only and he could verbalise what he was looking at.
- C. left and right occipital lobes and he could not verbalise what he was looking at.
- D. left and right occipital lobes and he could verbalise what he was looking at.

Question 14

In the action of picking up a cup of coffee, taking a sip, and then placing it back down on the table, the specific nervous system involved in that action is named as the

- A. somatic nervous system.
- B. autonomic nervous system.
- C. sympathetic nervous system.
- D. parasympathetic nervous system.

Question 15

In order for sensory information to be interpreted it must at first be processed. Sensory information is processed in the

- A. parietal lobe.
- B. parietal and occipital lobes.
- C. occipital and temporal lobes.
- D. occipital, temporal and parietal lobes.

Questions 16, 17 and 18 refer to the following information

Rhonda was running a fruit stall at school as a part of a fund raising project to purchase new equipment to be used in the year 12 common room. The stall involved selling various types of fruit and also included selling some cold drinks as well. One student ordered two bananas, two apples and a can of drink. According to Baddeley and Hitch's model of working memory, Rhonda would use various subsystems of her working memory to carry out this task.

Question 16

In paying attention to what the student ordered, Rhonda would be using the subsystem of working memory known as the

- A. central executive.
- B. episodic buffer.
- C. visuospatial sketchpad.
- D. phonological loop.

Question 17

Rhonda was sub vocally rehearsing the order of the student. To do this she would use the subsystem of working memory known as the

- A. central executive.
- B. episodic buffer.
- C. visuospatial sketchpad.
- D. phonological loop.

Question 18

Rhonda had to retrieve the prices of the various items from the long term memory. The subsystem of working memory involved in retrieving the prices would have been the

- A. central executive.
- B. episodic buffer.
- C. visuospatial sketchpad.
- D. phonological loop.

Question 19

Mr Jones wanted his PE class to remember 30 muscles of the body. He did this by reading out slowly the names of 30 muscles. At the end of reading the names, Mr Jones then instructed his class to write down the names of the muscles in the exact order that he had read them out. It is most likely that his students would have remembered

- A. more muscles at the beginning of the list known as the primacy effect.
- B. more muscles at the end of the list known as the recency effect.
- C. more muscles at the beginning and the end of the list than in the middle of the list known as the serial position effect
- D. all of the muscles

Question 20

Craik and Lockhart proposed a model of memory suggesting that memory is enhanced according to the depth at which the information is processed. They proposed that to enhance memory people should use which of the following levels of processing

- A. phonemic.
- B. structural.
- C. semantic.
- D. acoustic.

Question 21

When comparing the memory abilities of young people to the elderly, which of the following statements is **incorrect**

- A. in tasks involving recognition there is little difference shown between the memory abilities of young people and the elderly.
- B. motivation and confidence are not factors that affect the memory abilities of the elderly.
- C. if the elderly are given more time to process information, the memory differences between young people and the elderly are reduced on tasks involving recall.
- D. the slowing of the central nervous system impacts on the memory ability of the elderly compared to young people.

Question 22

Herman Ebbinghaus used nonsense syllables to derive the Forgetting Curve. He used nonsense syllables rather than words to

- A. minimize the experimenter effect.
- B. remove a possible confounding variable of past experience influencing recall.
- C. enhance the likelihood of achieving statistical significance.
- D. more accurately gauge the impact of retrograde amnesia.

Question 23

After having the same mobile phone number for many years, Simon obtained a new number but was having difficulty remembering the number when asked for it by friends. His friend David was required to learn 5 new terms every day in his Psychology class. However, he was finding that with each new 5 terms he had to learn, he was struggling to recall the previous words he had learned. In this scenario

- A. Simon is experiencing proactive interference whereas David is experiencing retroactive interference.
- B. Simon is experiencing retroactive interference whereas David is experiencing proactive interference.
- C. both are experiencing proactive and retroactive interference.
- D. Simon is experiencing retroactive interference with primarily affects encoding and storage.

Question 24

Tip of the Tongue is a phenomenon studied extensively by psychologists. Research into this area has provided considerable insight to specific aspects of memory. With regards to research in this area, which of the following statements is **not** correct?

- A. retrieval is an all or nothing process.
- B. often we have a feeling of ‘knowing’ that we know an answer but cannot retrieve it at that point of time.
- C. the storage of memories in the brain is quite complex.
- D. we may know how many syllables there are in the answer we are looking for.

Question 25

We now have some knowledge how nerves function in relation to the formation of memories. Nerves are not fixed and undergo functional and structural changes. Which of the following neuronal changes is not considered to be a structural change that takes place during memory formation?

- A. bushier dendrites.
- B. an increase in synaptic connections.
- C. an increase in neurotransmitters.
- D. an increase in dendritic spines.

Questions 26, 27 and 28 refer to the following information

Angela and Rebecca witnessed a violent incident at a nightclub that was extremely traumatic. Two days later they were interviewed by police and asked to provide statements about the incident.

Question 26

When interviewed by police, Rebecca claimed that she had no recollection of the incident at all. A possible explanation for this is that Rebecca has

- A. unconsciously suppressed the incident.
- B. chosen to repress the incident.
- C. unconsciously repressed the incident because of the traumatic nature of the event.
- D. struggled to retrieve the memory due to decay.

Question 27

Two weeks later, the police took Angela back to the nightclub and questioned her about the incident. By taking her back to the nightclub, it is likely the police were hoping that

- A. making use of state dependent cues would help provide environmental cues to help Angela retrieve information about the incident.
- B. the environmental cues would help Angela trigger the recall of information about the incident.
- C. state dependent cues would assist Angela retrieve information about the incident.
- D. the environmental cues would act as state dependent cues allowing Angela to recall vital information about the incident.

Question 28

Six months later Angela had to attend court to act as a witness to the event. Her statements in court differed in some ways to her original statement given to police. This difference in her account of the incident can be best explained by

- A. Angela having enough time to think about what really happened.
- B. Angela deliberately and actively reconstructing her memory of the event.
- C. Angela being asked questions that contained misinformation leading up to the court case.
- D. Angela experiencing proactive interference due to the time delay between the incident and her court appearance.

Question 29

Jim was in the family room when his mother called out that his dinner was ready on the table. Jim replied “what”; and before his mother could again respond Jim called out “don’t worry; I’ve got it – I know what you said”. The fact that Jim initially indicated that he had not heard his mother and then indicate he did hear her is best explained by

- A. Jim at first ignoring and then paying attention to information in his echoic memory.
- B. Jim at first ignoring and then paying attention to the information in his iconic memory.
- C. the words of his mother remaining in his STM due to the duration of the STM being long enough for him to pay attention to it.
- D. the words of his mother being within the capacity range of the STM.

Question 30

If an individual damaged their amygdale, which of the following aspects of memory would **not** be affected?

- A. storing the emotional content of declarative memories as formed by the hippocampus.
- B. recognizing various emotions demonstrated by facial expressions.
- C. recalling unpleasant tastes
- D. any memory related to fear

Question 31

When he was a child, Tom would watch his father light many campfires. As he grew older, Tom would go camping with his friends and he was able to light a campfire by himself for the first time without any assistance. Tom’s ability to light a campfire can be best described as learning that has taken place

- A. classically.
- B. operantly.
- C. by observation.
- D. by trial and error.

Question 32

A young child is able to learn their native language quite easily. This ability to rapidly learn a native language can be best described as

- A. experience dependent learning occurring due a sensitive period.
- B. experience dependent learning occurring due a critical period.
- C. experience expectant learning occurring due a sensitive period.
- D. experience expectant learning occurring due a critical period.

Question 33

There are five stages that occur in developmental plasticity. The last stage of this form of plasticity is

- A. myelination.
- B. circuit pruning.
- C. circuit formation.
- D. synaptogenesis.

Question 34

Jack is married with four children and he explained to his children that when driving his car, he stays below the speed limit to avoid receiving a heavy fine as the family cannot afford the extra such fines. Jack's behaviour of driving below the speed limit to avoid speeding fines is an example of

- A. positive reinforcement.
- B. negative reinforcement.
- C. response cost.
- D. punishment.

Question 35

Pamela was constantly asking her father for money. She had learned to judge her father's moods by his facial expressions and was able to judge when the time was right to ask her father for money. In terms of the three phase model of operant conditioning, Pamela waiting until the time was right to ask her father for money is the

- A. discriminative stimulus.
- B. consequence.
- C. response.
- D. response cost.

Question 36

Jayda was being taught how to serve a tennis ball by her coach. Using the stages of observational learning, Jayda wanting to perform the tennis serve is an example of the stage of

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

Questions 37, 38 and 39 refer to the following information

William was teaching his dog to walk correctly on a lead. Every time his dog walked correctly, William would reinforce his dog with a treat. After the dog had learned to walk correctly, William would only reinforce the dog for walking correctly every now and again. When getting ready to go for a walk, William would put on his blue jacket and he soon noticed that his dog would get excited and run around in circles because the dog knew it would be going for a walk.

Question 37

In regard to the blue jacket and the dog becoming excited and running around in circles, the blue jacket is considered to be the _____ whereas the dog running around in circles is the _____

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

Question 38

One day, William put on his brown jacket and his dog started running around in circles. This behaviour of the dog can be described as

- A. stimulus generalisation.
- B. stimulus discrimination.
- C. shaping.
- D. positive reinforcement.

Question 39

William reinforcing the dog every now and again for walking correctly is an example of

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

Question 40

Which of the following would be considered the most suitable strategy to remove an unpleasant or unwanted behaviour?

- A. graduated exposure.
- B. flooding.
- C. token economy.
- D. aversion therapy.

Question 41

When making a comparison between classical and operant conditioning, which of the following statements is **incorrect**?

- A. spontaneous recovery is a characteristic of classical conditioning but not operant conditioning.
- B. in classical conditioning the role of the learner is passive whereas the role of the learner in operant conditioning is active.
- C. the response in classical conditioning is involuntary whereas in operant conditioning it is voluntary.
- D. in classical conditioning the response occurs after the stimulus whereas in operant conditioning the response occurs after the discriminative stimulus.

Question 42

Which of the following is not considered to be a feature of adaptive plasticity?

- A. sprouting.
- B. rerouting.
- C. proliferation.
- D. new synaptic connections.

Question 43

If an individual was unable to form a classically conditioned emotional response, then it is likely that they have damaged their

- A. amygdale.
- B. hippocampus.
- C. basal ganglia.
- D. frontal lobe.

Question 44

The experiment on 'Little Albert' by Watson was considered to be unethical. Once the experiment was over, a serious ethical guideline that had not been followed was

- A. obtaining informed consent from the mother.
- B. not attempting to extinguish the acquired conditioned response.
- C. allowing withdrawal rights.
- D. not obtaining permission from the ethics committee.

Question 45

Albert Bandura conducted several experiments involving young children and learning by observation. One of his most significant findings was that learning

- A. was occurring through observation.
- B. was independent of classical conditioning.
- C. can occur without the need for direct reinforcement or punishment.

D. in young children could occur through shaping.

Question 46

When a stress response is experienced, cortisol is released by the adrenal glands. The release of cortisol to combat the effects of stress is considered to be

- A. extremely harmful to the body in dealing with stressors in the short term.
- B. extremely helpful to the body in dealing with stressors in the long term.
- C. fast acting in comparison to the effect of adrenaline.
- D. harmful to the body if high levels persist over a long period.

Question 47

Homosexuality was once considered to be abnormal behaviour which is a view that has now changed. Which approach to describing normality best explains this change?

- A. cultural approach.
- B. statistical approach.
- C. historical approach.
- D. situational approach.

Question 48

Which of the following statements regarding stress is **not** correct?

- A. the physiological stress response is the same for everyone.
- B. the stress response is the result of an individual's objective appraisal of a certain situation.
- C. the stress response can be due to both internal and external factors.
- D. the stress response is influenced by an individual's perception of their ability to cope with the situation.

Question 49

In diagnosing mental illness, professionals will often use a categorical or dimensional approach to classification. Which of the following best describes these approaches?

- A. categorical approaches tend to label people with mental disorders whereas dimensional approaches reduce labelling.
- B. dimensional approaches are considered to be more useful when a quick diagnosis is required.
- C. categorical approaches take into account the uniqueness of the individual more than dimensional approaches.
- D. dimensional approaches are easier to use and are hence more user friendly.

Questions 50 and 51 relate to the following scenario.

Ben and Steve were workmates who had just been retrenched from their place of employment and were now out of work. Both men had exactly the same qualifications and work experience. The loss of income threatened to seriously impact on their lives as both were married with children and also had mortgages.

Question 50

Initially, Ben was not too concerned as he considered himself to be a good worker who was capable of obtaining other employment. Steve was very concerned about losing his house and falling behind on the mortgage. In regard to the Transactional Model of Stress and Coping, it would seem that losing their job is

- A. seen as threatening to both men.
- B. seen as a challenge to both men.
- C. seen as threatening to Ben but a challenge to Steve.
- D. seen as threatening to Steve but a challenge to Ben.

Question 51

Ben commenced to seek out information and evaluate the pros and cons of the situation whereas Steve was using avoidance behaviours and not getting involved. In regards to coping strategies

- A. Ben was using emotion focused coping and Steve problem focused coping.
- B. Ben was using problem focused coping and Steve emotion focused coping.
- C. both were using emotion focused coping.
- D. both were using problem focused coping.

Question 52

One of the criticisms of the Transactional Model of Stress and Coping is that

- A. it doesn't allow for individual variation in progression through the stages.
- B. it doesn't allow for the individuality of the stress response.
- C. it doesn't take into account the interaction with the environment.
- D. we can change our thinking about a stressor and/or a response.

Question 53

A new approach to explaining the stress response is the concept of allostasis. Which of the following is the best description of allostasis?

- A. allostasis refers to the ability of the body to maintain a stable physiological environment by keeping physiological systems fairly constant.
- B. allostasis clearly ignores the cognitive processes involved in the stress response.
- C. physiological systems can make large changes to maintain a stable physiological environment.
- D. allostasis emphasises the importance of stability by changing psychological systems and removes the need to consider social and cultural factors.

Question 54

Which of the following statements is **not** correct in regard to allostatic load?

- A. it refers to the cumulative negative effects of wear and tear on the resources of the body.
- B. it explains the function of the immune system in strengthening and fighting disease with allostatic load.
- C. it helps explain the effects of stress on the development of mental illness.
- D. it helps explain how stress contributes to physical disorders such as heart disease.

Question 55

Physical exercise has received worldwide acceptance as a strategy to be used in physical and mental health. Physical exercise is useful in coping with stress because it

- A. increases the cardiovascular system allowing an individual to better cope with stress.
- B. allows the body to take longer to return to homeostasis.
- C. uses up endorphins which allows some relief from pain and stress.
- D. reduces muscle tension that results from a decrease in sympathetic nervous system activity that occurs during stress.

Question 56

Sally and Jane decided to experience bungee jumping. Whilst standing on the platform, Sally was experiencing eustress and Jane was experiencing distress. When considering the nervous system response of both girls, it is likely that

- A. both would be experiencing a dominance of the sympathetic nervous systems.
- B. both would be experiencing a dominance of the parasympathetic nervous systems.
- C. the sympathetic nervous system would be dominant for Sally and the parasympathetic nervous system would be dominant for Jane.
- D. the sympathetic nervous system would be dominant for Jane and the parasympathetic nervous system would be dominant for Sally.

Question 57

Jim has been experiencing considerable stress at work and his best friend suggests that he seeks professional help. Jim visits a therapist who decides to record various physiological measurements whilst trying to teach Jim relaxation strategies. These procedures indicate that Jim is most likely undertaking

- A. a coping strategy by interacting with the environment.
- B. biofeedback.
- C. progressive muscle relaxation.
- D. meditation.

Question 58

The DSM is a tool used by mental health professionals to diagnose mental disorders. The DSM uses

- A. an approach involving a continuum.
- B. a biopsychosocial approach.
- C. a dimensional approach.
- D. a categorical approach.

Question 59

One of the differences between eustress and distress is that

- A. eustress is a negative psychological response to a stressor whereas distress is a positive psychological response to a stressor.
- B. eustress can result in the positive psychological state of anxiety whereas distress may cause excitement.
- C. eustress can result in the negative psychological state of excitement whereas distress may cause anxiety.
- D. eustress is a positive psychological response to a stressor whereas distress is a negative psychological response to a stressor.

Question 60

Whilst out surfing, Samantha thought she saw a shark pass beneath her board. It is likely that one of her physiological responses would have been

- A. an increase in digestion.
- B. a decrease in salivation.
- C. a constriction of her bronchial passages.
- D. a constriction of her pupils.

Question 61

The principal at Happy Valley high school wanted to determine if there was any difference in the performance of his two teachers of year 12 psychology. He asked the year 12 coordinator to calculate the mean VCE study scores achieved by the class of each teacher. The mean study score for teacher A's class was 31.7 (23 students) and the mean study score for teacher B's class was 35.2 (27 students). Using the data, the principal could

- A. conclude that teacher B was performing better than teacher A in achieving good scores in year 12 Psychology.
- B. conclude that the difference in results were statistically significant.
- C. not form any conclusion.
- D. conclude that the difference in the number of students in each class indicated that the results would be bias.

Question 62

A psychologist was conducting research into the mental health effects of homelessness on individuals. In order to conduct his research, he needed to gather participants that could be analysed for any possible mental health issues. The most appropriate sampling method for this research would be

- A. random sampling.
- B. convenience sampling.
- C. stratified sampling.
- D. random stratified sampling.

Questions 63, 64 and 65 refer to the following information

Professor Hogg was conducting research into the effects of caffeine on the sleeping patterns of adults. He randomly sampled 50 adults aged between 25 and 50 years and then randomly allocated them to the control and experimental group. The experimental group was given precisely monitored caffeine levels one hour prior to sleeping in a sleep laboratory. Both groups had their sleeping patterns analysed in a sleep laboratory. Professor Hogg decided to use a double blind procedure in conducting his research.

Question 63

Professor Hogg used a double blind procedure to control

- A. extraneous variables including confounding variables.
- B. the placebo effect.
- C. the experimenter effect.
- D. both the placebo and experimenter effect.

Question 64

The experimental design used by Professor Hogg was

- A. independent groups.
- B. independent groups using counterbalancing.
- C. repeated measures using counterbalancing.
- D. independent groups using a placebo.

Question 65

A possible confounding variable in this research could be

- A. only using 50 adults in the sample.
- B. some of the adults in the experimental and control groups may have different tolerance levels to caffeine due to prior caffeine use.
- C. the effects of caffeine on the sleeping patterns of adults over 50 years of age may be different to those determined by Professor Hogg.
- D. failing to use stratified random sampling.

Section B - Short Answer Questions

Question 1 (3 marks)

William attended the 18th birthday party of his best friend and at the end of the evening he was in an alcohol induced state. His parents were not impressed when he arrived home.

- a. Describe a cognitive distortion that William may have experienced in his alcohol induced state?

1 mark

- b. Explain how William's father could have determined if William was experiencing any perceptual distortions.

2 marks

Question 2 (2 marks)

We are able to use our hands to draw, write, knit etc by making fine and precise movements with our fingers. By referring to cortical representation, explain why most people are not able to produce such fine and precise movements with their toes.

Question 3 (4 marks)

Miranda has been performing quite poorly on her Year 12 SAC's in English. She is becoming stressed about how these results may impact her final ATAR score and she is concerned that she may not get into the university course she is aiming for.

- a. Using the Transactional Model of Stress and Coping, explain why Miranda is experiencing a stress response. 2 marks

- b. Outline two strengths of the Transactional Model of Stress and Coping. 2 marks

Question 4 (4 marks)

Stephen was a 45 year old male who suffered minor brain damage in a car accident. He underwent an intensive rehabilitation program and the members of his family were amazed at his recovery at the end of the program.

- a. With specific reference to the plasticity of the brain and changes that take place, explain how Stephen was able to recover from the brain injury. 3 marks

- b. Explain why a 5-year-old child could possibly make a better and/or faster recovery than Stephen if they suffered similar brain damage. 1 mark

Question 5 (3 marks)

Ryan witnessed a violent fight at a night club and the next day was interviewed by police and he made a statement regarding the details of the fight. During the interview, the police were quite rigorous in their questioning of Ryan. When required to attend court and provide evidence under oath, why is it possible that the testimony of Ryan could be inaccurate?

Question 6 (7 marks)

Gary did not enjoy school at all and he found many aspects of school difficult. His parents consulted with the careers counsellor and a decision was made that he search for an apprenticeship. Gary gained an apprenticeship as a butcher and he left school just before the end of year10. Work as a butcher required early starts and on three days a week Gary commenced work at 5:00am requiring him to get up at 4:00am. His mother was struggling to get Gary out of bed and she encouraged him to go to bed earlier in order to be able to get up in the morning. However, Gary found that he struggled to go to sleep when he did go to bed earlier and he still found getting up early extremely difficult.

- a. Provide a possible explanation to explain why Gary found it so difficult to wake up and difficult to go to sleep when he went to bed earlier. 3 marks

- b. If being woken so early in the morning resulted in Gary being deprived of REM sleep, explain any expected changes in Gary's sleeping patterns the next time he sleeps. 2 marks

- c. Gary was finding it more and more difficult to get up in time for work. His employer was becoming concerned about the situation especially from the perspective of occupational health and safety. State a possible implication of this situation as it specifically relates to Gary's performance whilst he is at work. 2 marks

Question 7 (6 marks)

Mikaela is a 9 year old girl who has developed a conditioned fear response to all dogs as a result of being severely bitten by a dog.

- a. Using classical conditioning and correct psychological terms, explain how Mikaela may have developed her conditioned fear response to all dogs. 5 marks

- b. What brain structure would have played a role in the development of this fear response. 1 mark

Question 8 (4 marks)

Bill is a 55 year old happily married man who was enjoying festivities at a family reunion. His cousin Jack asked him if he recalled an incident from their childhood that occurred on a family camping trip. Bill could not recall the incident at all. With reference to motivated forgetting, give two possible explanations why Bill is unable to recall the event.

Question 9 (4 marks)

Jason received bad news that he was about to lose his job. At the same time, his car broke down and the repair cost was extremely expensive. He was also worried about the prospect of finding other employment due to his lack of qualifications. Jason was finding it difficult financially and the situation was putting a strain on the relationship with his wife and children. As time went by, Jason was finding it hard to get out of bed of a morning as coping with the situation was becoming increasingly difficult. Jason's sister was concerned about the prospect of him becoming ill due to the stress of the situation. With reference to allostasis, explain the basis for the concern of Jason's sister.

Question 10 (5 marks)

Michael had just purchased a large farm that grew and sold apples. He advertised for fruit pickers to come and help pick his apples so he could box and sell them as quickly as possible. Michael had two sons, Sam and Mitch that were reluctant to help on the farm. This frustrated Michael as he thought they should help the family which would save on some of the wages needed to pay people to pick the apples.

- a. Michael told his friend Jack that he was going to pay the fruit pickers a flat rate of \$500 a week to pick the apples. Jack said that this was a foolish idea. Explain why Jack thought the idea was foolish. What schedule of reinforcement should Michael use to pay the fruit pickers? Explain why this schedule is most suitable. 3 marks

- b. One day Sam and Mitch refused to help pick apples and Michael threatened to take their mobile phones from them. Using the principles and terms of operant conditioning, explain why Sam and Mitch suddenly decided to pick apples after they received that threat. 2 marks

Question 11 (4 marks)

Professor Smith was conducting research on sleeping patterns in a sleep laboratory.

- a. Explain how an EOG used by Professor Smith would indicate that a participant has entered a period of REM sleep. 2 marks

- b. What are two disadvantages of conducting sleep research in a sleep laboratory? 2 marks

Question 12 (4 marks)

Rhianna and Serena were two young girls who were about to go on a roller coaster for the first time. They were both demonstrating very different responses just prior to the ride on the roller coaster. Rhianna was displaying positive psychological responses to the situation whereas as Serena was displaying a negative psychological response. Using correct psychological terms, explain any difference in the responses of the two girls. Include in your answer, any physiological responses that would be occurring with both girls.

Question 13 (4 marks)

Molly was riding her horse when she fell and hit her head on the ground. The impact caused Molly to be concussed.

- a. According to the consolidation theory, why might Molly experience memory loss for the period of the time just prior to being thrown from her horse. 2 marks

- b. Had Molly not have fallen from the horse, memory formation would have occurred. Name one functional and one structural neuronal change that would have occurred in Molly's brain. 2 marks

Question 14 (3 marks)

Mary felt that her young daughter Morgan was ready for toilet training and should start to use the toilet and no longer require nappies. Using the three-phase model of operant conditioning, explain how Mary could toilet train Morgan to use a potty or toilet rather than soil a nappy.

Question 15 (3 marks)

There is evidence to indicate that mental health issues are being experienced by an increasing number of people. Explain how a biopsychosocial framework has influenced the way health professional's deal with mental health issues.

Section C – Extended Response

Scott Jones, an educational researcher, developed a new computer software program to improve the learning of literacy and grammar skills of primary school students. Scott approached the local primary school near where he lived to ascertain if they were willing to trial the new software program. The school had 4 classes of grade 6 students. The principal, after consultation with the teachers, agreed for two of the grade 6 classes to use the new software program whilst the other two grade 6 classes would continue with normal classroom practice in teaching and learning.

All students were given an initial test of literacy and grammar skills, which was graded by their classroom teacher. Teachers were then instructed to complete a unit of work on literacy and grammar skills over a period of three weeks. Group A involved 56 students and they learned the unit by using the software program. Group B involved 52 students and they learned the unit through the normal classroom practices of their teacher. All students were required to complete the unit over the same time period and for the same amount of time each week.

At the end of the three weeks, all students completed a different test of literacy and grammar skills. The second test, also graded by the classroom teacher, was comparable in difficulty when compared to the first test. The results of the research are presented in the table below.

	Mean score test 1	Mean score test 2
Group A	63	74
Group B	61	68

Scott conducted a test of statistical significance that returned a result of $p \leq 0.04$.

Question 1 (1 mark)

What research design was used to conduct this research?

Question 2 (4 marks)

Name and operationalize the independent and dependent variables in this research.

IV _____

DV _____



