

ACCESS EDUCATION

VCE Psychology 2019 Unit 3 & 4 Trial Examination Question and Answer Book

Reading time: 15 minutes

Writing Time: 2 hours and 30 minutes

Instructions

Answer All Questions

Section A	Multiple Choice	50 Questions	50 marks
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Multiple Choice questions are to be answered on the sheet provided.

Section B	Short Answer Questions	8 Questions	70 marks
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Answers should be given in the space provided

Total	120 marks
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VCE Psychology 2019
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

The part of the nerve responsible for the release of neurotransmitters into the synapse is

- A. soma
- B. dendrites
- C. axon terminals
- D. myelin sheath

Question 2

Wayne accidentally placed his hand on a hot surface and immediately withdrew his hand in a reflex action. This reflex action most likely occurred in the

- A. hippocampus
- B. spinal cord
- C. amygdale
- D. cerebral cortex

Question 3

Glutamate plays a key role in learning and memory. It does this by

- A. repeatedly being released across the synapse by the pre-synaptic neuron enhancing long term depression
- B. acting as an inhibitory neurotransmitter minimising the function of GABA
- C. increasing the sensitivity of the receptors on the dendrites of the pre-synaptic neuron
- D. increasing the likelihood of the post-synaptic neuron firing

Question 4

Susan's mother was teaching her how to knit. When Susan first commenced knitting, she had to focus on the needles and wool continuously to avoid making any errors. However, after practicing for some time, Susan was now able to knit whilst also having a conversation with her mother. The reason Susan can now do this is because knitting

- A. has become more of a controlled process that requires minimal mental effort
- B. has become more of an automatic process that requires minimum mental effort
- C. has become a controlled process that requires selective attention
- D. has become an automatic process that requires selective attention

Question 5

Which of the following statements about the autonomic nervous system is incorrect?

- A. it has a role in maintaining homeostasis
- B. it requires a conscious effort in order to function
- C. it has a role in the fight/flight/freeze response
- D. it enables some internal physiological functions to occur during a coma

Question 6

People who suffer from Parkinson's disease are able to take medication that can provide some relief from the symptoms that occur. This medication

- A. will speed up the reabsorption of neurotransmitters in the synapse
- B. can mimic the role of glutamate
- C. can be converted to dopamine by some neurons in the CNS
- D. increases the sensitivity of the receptors on the axon terminals

Use the following information to answer Questions 7, 8 and 9.

Kate and Sally are best friends who are both completing the same VCE studies. Kate is quite excited about the challenge of completing VCE. On the other hand, Sally is aiming to achieve a high ATAR and she is concerned because she has just received a grade of D for an English SAC. Kate also received a grade of D for the same SAC. Both girls were preparing for their next English SAC when Sally started to develop symptoms of the flu. On the morning of their next English SAC, both girls were feeling nervous although Kate was confident that she had adequately prepared for the SAC.

Question 7

In regard to physiological responses on the morning of their next English SAC, which of the following statements is most likely to be incorrect?

- A. both Kate and Sally would have an increased level of adrenaline in their blood stream
- B. Sally would experience an inhibition of digestion
- C. both Kate and Sally would experience an increase in salivation
- D. both Kate and Sally would have an increased activation of the sympathetic nervous system.

Question 8

With regard to the General Adaptation Syndrome, it is most likely that

- A. Kate is in the countershock stage
- B. Sally is in the resistance stage
- C. Sally is in the exhaustion stage
- D. Sally is experiencing an increase in the functioning of the immune system

Question 9

When considering the experiences of both Kate and Sally, it is most likely that

- A. both Kate and Sally are experiencing a positive psychological response to completing VCE
- B. Kate is confident on the morning of the English SAC as she has been using an avoidance coping strategy
- C. Kate has appraised VCE as a challenge
- D. both Kate and Sally have been using emotion focused strategies in dealing with the grade of D on their first English SAC

Use the following information to answer Questions 10 and 11.

William is a 7-year-old boy. He was sitting in the family room when he overheard his father telling his mother how much the dentist hurt him when he had a tooth repaired. Three months later, William's mother told William that she was taking him to the dentist after school to have his teeth checked. She was surprised when William started to cry and beg her not to take him to the dentist.

Question 10

In this scenario, it is most likely that

- A. the dentist has become an unconditioned response for William
- B. the dentist at first was an unconditioned stimulus and the dentist has now become a conditioned stimulus
- C. William has developed a conditioned fear response of the dentist
- D. William has made an association between the neutral stimulus of the dentist and the unconditioned response of fear of the dentist

Question 11

If William's mother does not take him to the dentist after school because it upsets William so much, then it is likely that this will

- A. act as positive reinforcement for William's behavioural response of fearing the dentist
- B. be providing William with a response cost
- C. act as positive reinforcement for William's mother because not taking him will remove William's fear.
- D. negatively reinforce Williams fear response which may strengthen this response

Question 12

When comparing operant conditioning with observational learning, which of the following statements is incorrect

- A. in both types of learning, it is reinforcement that influences likelihood of behaviour being repeated
- B. in both types of learning the reinforcement occurs after the behavioural response
- C. cognitive processes are involved in both types of learning.
- D. in operant conditioning the learner is active whereas in observational learning the learner is passive

Question 13

Bill was heavily fined by the police for speeding. This was hard for Bill because he could not really afford the fine. After receiving the fine, Bill now always travels within the speed limit. Bill always travelling at the correct speed is an example of

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

Question 14

Albert Bandura was responsible for developing the Social Learning Theory. He conducted several research studies on observational learning in young children. The results of his research into observational learning indicates that

- A. observational learning will only occur if the model being observed is positively reinforced for their behaviour
- B. it was similar to operant conditioning in that learning was influenced by the consequences of the behaviour.
- C. observational learning can only occur in young children
- D. observational learning will only occur when watching real life situations and not from watching cartoon characters

Question 15

Atkinson and Shiffrin proposed a model of memory. According to their model,

- A. all sensory information can be rehearsed in sensory memory
- B. the only way information can enter STM is by selectively attending to it when the information is in sensory memory
- C. echoic memory provides a temporary store of visual images
- D. the LTM has a relatively unlimited capacity

Question 16

John was involved in a serious accident at work and he suffered brain damage. Specifically, both of his amygdalae were damaged. With damaged amygdala, which of the following statements is most likely correct.

- A. John would struggle to form new explicit memories
- B. John would find it difficult to recall past memories
- C. John would experience anterograde amnesia
- D. John would experience difficulty in forming explicit memories with emotional content

Question 17

A professor at Happy Valley University wanted to test the memory ability of the students in his Psychology class. He slowly read out the names of 30 short but unfamiliar words. When he finished, he asked his class to write down as many words as they could remember in the order in which he said them. When analysing the results, it is likely that most of the students

- A. remembered more words at the end and beginning of the list than in the middle
- B. remembered more words at the end of the list than at the beginning
- C. remembered more words at the beginning of the list than at the end
- D. provided results indicative of the primacy and recency effects

Question 18

If a person damaged their cerebellum, it is likely that they would

- A. find it difficult to form explicit simple conditioned reflexes learned through classical conditioning
- B. find it difficult to coordinate muscle control
- C. find it difficult to form new explicit memories
- D. find it difficult to recall episodic memories

Question 19

When she was a teenager, Susan watched her mother bake a cake. A short while later, Susan decided to bake a cake also. One of the elements of observational learning is motivation. In the context of the example above, the element of motivation would be demonstrated by

- A. Susan having the motivation to learn how to bake a cake
- B. Susan's mother giving her \$5 to bake a cake
- C. Susan having the motivation to perform the behaviour of baking a cake
- D. Susan having the skills to bake a cake

Question 20

Many people in Australia suffer from Alzheimer's disease. For someone suffering from this disease, which of the following statements are least likely to be correct?

- A. they would experience anterograde amnesia
- B. they will experience a shrinkage of the cerebral cortex.
- C. they would experience a decrease in neurotransmitters
- D. they would experience a decrease in amyloid plaques

Questions 21, 22 and 23 refer to the following information

Wendy was at a nightclub when she witnessed a violent incident in which a man was stabbed. Wendy was obviously extremely upset about what she had witnessed. The next day she was interviewed by the police, but she was finding it difficult to recall details of the incident. The police decided to take her back to the nightclub where the incident occurred.

Question 21

On the way back to the nightclub, Wendy was becoming quite emotional and she found that she was starting to remember details of the accident. This recollection of the accident was because

- A. of the context dependent cues where Wendy's emotions were providing retrieval cues assisting her to remember details of the accident
- B. of the state dependent cues where the environment was providing retrieval cues assisting her to remember details of the accident
- C. of the context dependent cues where the environment was providing retrieval cues assisting her to remember details of the accident
- D. of the state dependent cues where Wendy's emotions were providing retrieval cues assisting her to remember details of the accident

Question 22

Which of the following would most likely have been involved in the formation of Wendy's memory of this event?

- A. dopamine
- B. adrenaline
- C. GABA
- D. the cerebellum

Question 23

The police showed Wendy some photographs of possible suspects that were involved in the incident. The reason police would ask Wendy to look at photographs rather than to describe the offender is because

- A. describing the offender involves recall which is the most sensitive measure of memory
- B. looking at photographs involves recognition which is a less sensitive measure of memory than recall.
- C. of the reconstructive nature of memory
- D. describing the offender involves recall which is less sensitive than recognition

Question 24

Psychologists use various characteristics to try and determine the difference between an ASC and NWC. When comparing an ASC with NWC, one difference is that

- A. the content of consciousness is less limited in an ASC
- B. an ASC cannot occur naturally
- C. an ASC will always result in a lowered level of awareness
- D. there are no physiological changes with an ASC

Question 25

Steven was riding his bicycle when he was hit by car and knocked unconscious. When he regained consciousness, a bystander asked Steven where he lived. Steven could not remember where he lived. The fact that Steven could not remember where he lived indicates that Steven

- A. is experiencing a perceptual distortion
- B. is experiencing a cognitive distortion
- C. is now having difficulty with automatic processes
- D. none of the above

Question 26

An EEG is a tool that can be used to measure physiological responses that occur in different states of consciousness. A doctor was examining the EEG of a patient who had taken depressant medication. It is most likely that the EEG would indicate

- A. a decrease in the electrical activity of neurons in the brain
- B. an increase in beta waves and an increase in alpha waves
- C. a decrease in the electrical activity of the orbital muscles
- D. a decrease in beta waves and a possible increase in delta waves

Question 27

There is no model at present that adequately describes the reason why we sleep. One theory of why we sleep is the evolutionary theory. One of the main limitations of this theory is that

- A. we have evolved to sleep in order to enhance survival
- B. when we sleep, we have a lowered level of awareness
- C. it explains the sleeping patterns of different species but not why they actually need sleep
- D. babies can spend up to 50% of their sleep in REM sleep

Question 28

When considering the pattern of a typical night's sleep, which of the following statements is incorrect

- A. there is a decrease in the electrical activity of the muscles during REM sleep
- B. with each ultradian rhythm there is an increase in the time spent in REM sleep
- C. stage 3 and 4 NREM occurs with each sleep cycle
- D. stage 1 sleep most commonly occurs only in the first ultradian rhythm

Question 29

Wendy is a nurse who is required to work shifts at various different times. Because of her shift work, Wendy has struggled to get enough sleep and is suffering from the effects of sleep deprivation. Which of the following statements is most likely correct about what Wendy is experiencing?

- A. Wendy will experience mood disturbances
- B. Wendy will most experience a parasomnia
- C. Wendy will experience difficulty completing complex tasks
- D. Wendy will experience long lasting psychological effects of sleep deprivation

Question 30

Kevin is a 15-year-old boy who is in conflict with his mother because he is always late in getting out of bed and getting ready for school. The difficulty Kevin is experiencing in getting out of bed and ready for school is probably due to

- A. cortisol being released 1-2 hours later than normal
- B. a shift in his sleep wake cycle
- C. a dyssomnia
- D. a decrease in melatonin

Question 31

With regard to jetlag, which of the following statements is most likely correct?

- A. when travelling East, the days are longer, and our biological clock advances the Sleep/wake cycle to be earlier than usual.
- B. it is easier to adjust to a longer day when travelling West than it is to a shorter day when travelling East
- C. there is a greater mismatch between our biological clock and our day night cycle of the environment when travelling West
- D. jetlag is an ultradian rhythm disorder

Question 32

Which of the following is an example of a dyssomnia?

- A. someone who experiences somnambulism
- B. someone who experiences inappropriate physiological and/ or psychological activity during sleep
- C. someone who persistently takes a long time to fall asleep
- D. none of the above

Question 33

Jack was a businessman who was constantly having to travel East for his company. As a result, Jack developed a delayed sleep phase disorder. A possible solution to alleviate this problem for Jack would be to

- A. have bright light therapy early in the morning so that he gets sleepier later
- B. have bright light therapy early in the evening so that he gets sleepier later
- C. have bright light therapy early in the morning so that he gets sleepier earlier
- D. have bright light therapy early in the evening so that he gets sleepier earlier

Question 34

Which of the following is most likely to be a social risk factor in the development and progression of mental illness?

- A. rumination
- B. poor self-efficacy
- C. stress
- D. disorganised attachment

Question 35

Researchers face many ethical concerns when conducting research on various medications for mental health issues. One of these ethical concerns is that

- A. the use of a placebo by the control group may alleviate some of the symptoms of the mental health disorder.
- B. debriefing is always necessary at the beginning of the research
- C. the control group may involve withholding medication from some participants who need it
- D. it will be necessary to obtain informed consent

Question 36

David has just been divorced from his wife after 20 years of marriage. In addition, his father passed away and David always had an excellent relationship with his father. When considering the development and progression of a mental health disorder, this situation may be classified as

- A. a perpetuating risk factor that is also a social factor
- B. a precipitating risk factor that is also a social factor
- C. a perpetuating risk factor that is also a psychological factor
- D. a precipitating risk factor that is also a psychological factor

Question 37

When analysing the development and progression of a mental health disorder, psychologists will examine various risk factors that are involved. Which of the following risk factors is not a psychological risk factor?

- A. disorganised attachment
- B. rumination
- C. impaired reasoning and memory
- D. poor self-efficacy

Question 38

Research has identified several risk factors in the development and progression of a mental health disorder. Some of these risk factors are categorised as biological and indicate that the risk of development a mental illness may have a genetic basis. Which of the following best describes research demonstrating the involvement of a genetic risk factor leading to the development of a mental health disorder?

- A. the underlying impact of rumination in developing an anxiety disorder
- B. the chemical changes that occur in neurons when taking benzodiazepines
- C. the relationship between the mental health of children with divorced parents compared to children with parents that are not divorced
- D. the development and progression of mental health disorders in twins

Question 39

There is a link between disorganised attachment and being vulnerable to a mental health disorder. Disorganised attachment can be best described as

- A. thought patterns that actually impede finding the solution to a problem
- B. approaching a difficult task as though it was a challenge
- C. feelings of embarrassment and shame
- D. not having adequate care and support as a child.

Question 40

Which of the following is not a biological contributing factor in the development of a specific phobia?

- A. low levels of GABA
- B. Long Term Potentiation
- C. the stress response
- D. perpetuation by operant conditioning

Question 41

One method to treat specific phobia is the use of biological strategies in the form of medications. One of the limitations in using medication to treat specific phobia is that

- A. once the medication is stopped the symptoms will always return
- B. some of these medications may contain sedatives
- C. some of these medications may mimic GABA and act as GABA agonists
- D. medications focus on the symptoms of specific phobia and do not address the cause

Question 42

It seems as though the number of VCE students completing a non-scored VCE is steadily increasing. This increase is thought to be associated with the stress and anxiety linked to the pressure of completing a scored VCE program. Which of the following statements is most likely indicative of someone suffering from an anxiety disorder?

- A. a feeling of apprehension that something is wrong and that something unpleasant is about to happen
- B. an increase in physiological and psychological arousal associated with an increase in sympathetic nervous system activity
- C. a motorcyclist reducing their speed when driving on slippery road surfaces.
- D. a person experiencing a significant interference in their ability to function in their daily lives

Question 43

As a young boy, Sam was bitten by a dog and he now has a phobia of dogs. Sam will always avoid any situation where dogs may be present. In this case, it is most likely that Sam's phobia was

- A. precipitated by operant conditioning and is perpetuated by classical conditioning
- B. precipitated by operant conditioning and is perpetuated by operant conditioning
- C. precipitated by classical conditioning and is perpetuated by operant conditioning
- D. precipitated by classical conditioning and is perpetuated by classical conditioning

Questions 44, 45 and 46 refer to information below

The transtheoretical model of behaviour change is used to help people with mental health issues. It addresses various stages in changing maladaptive behaviours. Mary was struggling with anxiety and stress and her friends suggested that she try and get some help from a psychologist. Mary was starting to think that this may be a good idea and she indicated that she would see a psychologist in the next month.

Question 44

Using the transtheoretical model of behaviour change, it is likely that Mary is in the stage of

- A. pre-contemplation
- B. contemplation
- C. preparation
- D. action

Question 45

An appropriate strategy to encourage someone in this stage would be to

- A. encourage small steps
- B. focus on the positive outcomes of changing behaviour
- C. provide education on strategies to keep up commitments
- D. encourage support from family members

Question 46

One of the limitations of this model is that

- A. it does not allow for relapse
- B. there has not been enough research on variables influencing stage transitions
- C. it emphasises that change is a process that takes time
- D. it accounts for individual differences

Questions 47, 48, 49 and 50 refer to the following information

The Principal at Sunnydays Primary School was assessing the ability of two Grade 5 teachers in teaching their students Maths. Several parents had complained that their children were not advancing in Teacher A's class compared to those children in the class of Teacher B. The principal asked Teacher A and Teacher B to teach a particular unit of Maths. The Principal said that at the end of the unit he would give both classes a test on that unit of Maths and that he would correct the tests himself. The students in Teacher A's class received an average of 73% and those in Teacher B's class received an average of 53%.

Question 47

The type of research design used by the Principal is best described as being

- A. matched pairs
- B. independent groups
- C. cross-sectional
- D. repeated measures

Question 48

In this particular study, what confounding variable was least likely to influence the results?

- A. the initial maths ability of the students in Teacher A's class and Teacher B's class
- B. order effect
- C. the teaching styles of Teacher A and Teacher B
- D. the time of day when the students were taught the unit of Maths

Question 49

By correcting the tests himself, the principle was most likely trying to minimise

- A. the placebo effect
- B. the need for counterbalancing
- C. the experimenter effect
- D. the need for standardised procedures

Question 50

The score obtained by each class can be best described as being

- A. a qualitative result
- B. the dependent variable
- C. the independent variable
- D. an extraneous variable

Section B - Short Answer Questions

Question 1 (3 marks)

With regard to the transmission of nervous information, complete the table below using the correct psychological terminology.

What part of the nerve protects it from interference by other neurons and allows for the rapid transmission of nervous information?	
What part of the nerve is responsible for the release of neurotransmitters?	
What part of the nerve is considered to be the “lock” in terms of the lock and key process in the transmission of nervous information?	

Question 2 (11 marks)

Peter lived in a country town with a very small population. Whenever he went anywhere in the car, he always took Tom, his 16-year-old son. He had to drive to Melbourne for an appointment when he was pulled over by the police for speeding. Tom was also travelling in the car. The police officer gave Peter a heavy fine for speeding which greatly concerned Peter because the fine significantly impacted on his finances. Peter also received 3 demerit points for the offence. Peter had to return to Melbourne on four more occasions and he made sure that he travelled at the speed limit each time. Each time Peter travelled to Melbourne; Tom was also with him.

- a. Using the three phase model of operant conditioning, explain the situation that led to Peter travelling at the correct speed limit when driving to Melbourne. (3 marks)

- b. In terms of reinforcement, explain what was occurring each time Peter travelled to and from Melbourne at the correct speed limit. Include in your response the behaviour and the consequence. (3 marks)

- c. When Peter was back home and driving around the back country roads that were not used by many drivers, he paid no attention to the speed he was travelling when driving. What is the operant conditioning principle that applies to this situation? (2 marks)

- d. Tom's mother often allowed Tom to drive so he could add to his hours of driving practice before he was old enough to get a driver's licence. When driving, Tom was always careful not to go over the speed limit at any time. With regards to observational learning, explain the role of retention, motivation and reinforcement in Tom never exceeding the speed limit. (3 marks)

Question 3 (9 marks)

Wendy was very close to her grandmother and she would often visit her several times a week. However, in the past year, Wendy noticed that her grandmother was becoming more and more forgetful. Wendy felt that her grandmother was getting to the point where she had forgotten the last time Wendy had visited her even though it was only one day since Wendy's last visit.

- a. Using your knowledge of memory, brain structures and using correct psychological terms, explain a possible reason for this persistent forgetfulness of Wendy's grandmother. (4 marks)

- b. Wendy's friend Samantha was telling Wendy about her grandfather who had Parkinson's disease. Samantha suggested to Wendy that her grandmother may have Parkinson's disease, but Wendy was convinced that her grandmother did not have Parkinson's disease. Describe how Wendy would explain to Samantha that her grandmother did not have Parkinson's disease. Include in your response the neurological cause of Parkinson's disease. (3 marks)

- c. Wendy's mother mentioned to her that her grandmother has always wanted to learn to play the piano. She suggested to Wendy that she and her grandmother should take piano lessons together. In terms of neural plasticity, what would be a likely outcome of Wendy and her grandmother taking piano lessons together? (2 marks)

Question 4 (10 marks)

At the Bay of Plenty High School there were three Year 11 Psychology classes. The teachers of each class decided to investigate if there was any difference between elaborative and maintenance rehearsal when trying to learn 25 psychological terms that students needed for their Psychology class. Class A learned the terms using elaborative rehearsal and Class B used maintenance rehearsal. Class A and B were then instructed how to use elaborative and maintenance rehearsal respectively and were given one week of class time to learn the terms. Class C were simply shown the terms at the beginning of the week and were then asked to recall as many as possible at the end of the week. Class A were timetabled in the same room for every class. Class B were always in a different room for every class. Class C were also in a different room for every class. The results for the recall of psychological terms are below.

	Average Number of Items recalled
Class A	21.2
Class B	11.3
Class C	8.7

a. Write a hypothesis for this investigation. (2 marks)

b. Explain the difference between elaborative and maintenance rehearsal. (2 marks)

c. What is the purpose of Group C? (1 mark)

- d. What conclusion could be made from these results and what are the implications of the findings? (2 marks)

- e. When considering factors that influence a person's ability or inability to remember information, what additional factor may have influenced the results obtained by Class A? (3 marks)

Question 5 (5 marks)

Jeff and Neville are two Year 12 students from a local high school. They were both repeatedly receiving grades of "D" for their SAC's and they did not seem to be able to achieve a grade higher than a D. Jeff was becoming quite concerned and stressed because he felt that there was no solution to this problem and his dream of receiving a high ATAR was all but gone. In contrast, Neville was not stressed at all and simply accepted the grades he was receiving for SAC's for what they were.

- a. In terms of appraisal, explain difference in the responses of Jeff and Neville to receiving "D's" in their SAC's. (3 marks)

- b. In terms of the General Adaptation Syndrome, explain a possible outcome for Jeff if he continues to remain stressed. (2 marks)

Question 6 (12 marks)

Bill was employed as a forklift driver in a factory that functioned 24 hours a day. Therefore, Bill was required to complete shift work with the shift rosters requiring him to work from 7:00am-3:00pm, 3:00pm to 11:00pm or 11:00pm-7:00am. Bill also had a young family and his children had numerous sporting commitments. Bill was struggling to meet all of his responsibilities and he was becoming increasingly sleep deprived. It was getting to the point where Bill was seeking help for his sleeping problems.

- a. With regard to controlled processes, explain why high levels of sleep deprivation may impact on Bill's ability to do his job safely. (4 marks)

- b. In terms of affective functioning, explain how Bill's current situation may impact on his relationship with his wife. (2 marks)

- c. If you were giving advice to Bill on the importance of sleep, how would you explain the restorative theory of sleep and the purpose of NREM sleep. (4 marks)

- d. Bill's doctor suggested that he attend a sleep laboratory in order to assess his sleeping patterns. However, the doctor said that he would need to sleep in the sleep laboratory for one week before any measurements could be taken. Why would Bill need to sleep in a sleep laboratory for one week prior to any measurements being taken? (2 marks)

Question 7 (10 marks)

Margaret was a 40-year-old woman who suffered from a driving phobia and she was extremely fearful of driving a car. She developed this phobia as a result of being involved in a serious car accident. Both the police and her family members did their best to convince Margaret that the accident was not her fault. Nevertheless, Margaret refused to drive a car again. This significantly impacted on her ability to function normally. It also impacted on the activities of her children because Margaret was not able to drive them anywhere to take part in their normal extracurricular activities.

- a. Outline how a social intervention strategy could be beneficial in this situation. (2 marks)

- b. A friend of Margaret's suggested that she try and get help in the form of systematic desensitisation. Explain how a psychologist would use systematic desensitisation to treat Margaret's phobia. (4 marks)

- c. Explain the relationship between stress, anxiety and a phobia. (3 marks)

- d. Psychologists recommend taking a biopsychosocial approach to dealing with mental health disorders. What do psychologists mean by a biopsychosocial approach? (3 marks)

Question 8 (10 marks)

Professor Peabody was conducting research on the effects of sleep deprivation and driving performance. Participants were all members of his psychology class who volunteered to take part in the experiment. Professor Peabody randomly allocated the volunteers into four groups. All four groups participated on a driving performance test in a simulator. Whilst completing the test, Professor Peabody took EEG recordings of all participants. One week later the four groups again completed the test. Group A completed the test after taking a stimulant. Group B completed the test after taking a depressant. Group C completed the test after being deprived of sleep for 24 hours. Group D completed the test after drinking enough alcohol to have a blood alcohol content of 0.05. EEG recordings were also taken during the second test.

The average results of the tests were as follows:

	Pre-test	Post-test
Group A	56%	67%
Group B	61%	53%
Group C	54%	41%
Group D	59%	45%

You are required to write the discussion section of a research report on the results of Professor Peabody’s research. Include in your discussion comments on the following;

- A discussion of the results
- NWC and ASC
- brain wave patterns
- states of consciousness and associated characteristics
- a discussion of the research design used and any associated limitations of the design
- any ethical considerations
