

VCE Psychology Units 1&2

Written Examination

Suggested Solutions

SECTION A – MULTIPLE-CHOICE QUESTIONS

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| 1 | <input type="checkbox"/> A | <input type="checkbox"/> B | <input checked="" type="checkbox"/> C | <input type="checkbox"/> D |
| 2 | <input type="checkbox"/> A | <input type="checkbox"/> B | <input type="checkbox"/> C | <input checked="" type="checkbox"/> D |
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| 50 | <input type="checkbox"/> A | <input type="checkbox"/> B | <input checked="" type="checkbox"/> C | <input type="checkbox"/> D |

Question 1 C

Phrenologists believed that the parts of the brain that are used more frequently would stimulate greater development than parts of the brain used less frequently. They believed this would cause the skull to push out the surrounding skull, causing a bump on the head that could be observed or felt externally.

Question 2 D

Brain ablation is a procedure where specific parts of the brain are removed, destroyed or disabled. Brain ablation experiments have contributed to our knowledge of brain structure and function.

Question 3 A

A research hypothesis is a testable prediction of the relationship between two or more variables within a population. **A** is correct. It is not based on a sample and, to be a scientific hypothesis, it should always be testable, so **B**, **C** and **D** are incorrect.

Question 4 D

D is correct; a CT scan is a structural neuroimaging technique. fMRI and PET scans are functional neuroimaging techniques, so **A** and **B** are incorrect. ECG is a technique used to detect, amplify and record the electrical activity in the heart. **C** is incorrect.

Question 5 C

The somatic nervous system receives information from the sensory receptors; it is a branch of the peripheral nervous system, so **C** is correct and **A** is incorrect. The autonomic nervous system regulates automatic, reflexive responses that assist with survival. **B** is incorrect. The central nervous system consists of the brain and spinal cord. **D** is incorrect.

Question 6 C

Skeletal muscles are controlled by the somatic nervous system. The autonomic nervous system controls various glands, smooth muscles and visceral organs, such as the lungs.

Question 7 A

The sympathetic nervous system assists the body to survive when threatened by activating the fight-flight-freeze response. **A** is correct. The somatic nervous system is responsible for detecting incoming sensory stimuli. **B** is incorrect. The parasympathetic nervous system restores the body to a steady state of functioning once a threat has passed, and is active during most of the average person's day as it helps to maintain homeostasis, so **C** and **D** are incorrect.

Question 8 D

Interneurons help to connect sensory and motor neurons. Neurons that transmit information to the brain are referred to as sensory or afferent neurons. Motor neurons are efferent as they transmit outgoing information from the brain.

Question 9 C

C is correct; microglia act as the main form of immune defence for neurons. They are found in the peripheral nervous system and central nervous system, so **A** is incorrect. Oligodendroglia and Schwann cells produce and maintain myelin, so **B** is incorrect. Astrocytes are shaped like stars. **D** is incorrect.

Question 10 A

The forebrain contains the hypothalamus, thalamus and cerebrum. The hindbrain consists of the pons, medulla and cerebellum.

Question 11 C

The increase in brain size and volume is due to the development of myelin in a process called myelination as well as synaptogenesis, a process by which the number of synapses increases. **C** is correct. The number of neurons does not increase, nor do neurons thicken or increase in size, so **A** and **B** are incorrect. The change in brain size and volume is also not due to the development of glial cells. **D** is incorrect.

Question 12 B

Dr James was using data that she collected herself from first-hand sources, which makes the data primary. If it were secondary data, Dr James would have used data collected by another person/s. The data is numerical and not descriptive, which makes it quantitative, not qualitative.

Question 13 D

When conducting studies, researchers aim to control extraneous variables to ensure that the independent variable is responsible for changes in the dependent variable.

Question 14 D

Some of the psychological changes noted in Phineas Gage following his accident were difficulty with goal-directed behaviour and planning for future activities. **D** is correct. He did have difficulty with motor activities, but this was a biological factor, so **A** is incorrect. Gage also had difficulty maintaining relationships with his friends and with keeping a job; however, these difficulties were social in nature so **B** and **C** are incorrect.

Question 15 D

The area of the brain that is most commonly affected in cases of spatial neglect is the parietal lobe because spatial neglect is an attentional disorder. **D** is correct. It is not a problem with vision, so the visual cortex is not involved. **A** is incorrect. It does not involve functions stemming from the temporal lobe, so **B** is incorrect. It is not a motor problem and not does involve the motor cortex. **C** is incorrect.

Question 16 D

D is correct; the most significant risk factor for developing Parkinson's disease is age. Parkinson's disease involves a reduction of dopamine-producing neurons in the substantia nigra, subsequently causing a reduction in the amount of dopamine produced. **A** is incorrect. The actual cause of the disease is unknown (idiopathic), so **B** is incorrect. Parkinson's disease may include symptoms such as loss of smell, disturbed sleep or mental health problems. Loss of taste is not a symptom of Parkinson's disease. so **C** is incorrect.

Question 17 B

Monozygotic twins are conceived when one sperm fertilises one ovum. **B** is correct. Monozygotic twins have identical genotypes, but their phenotypes may be slightly different, depending on the influence of the environment, so **A** and **C** are incorrect. Fraternal twins (non-identical) are conceived when two sperm fertilise two ova, so **D** is incorrect.

Question 18 C

The sensitive period in which a person learns their first language continues to the age of twelve, with the period window gradually closing from about the age of seven. This is the period when an individual best learns their first language.

Question 19 D

In Ainsworth's strange situation test, the infant demonstrates separation anxiety – anxiety at being apart from their caregiver. **D** is correct. When a stranger enters the room and speaks with the caregiver while the infant is in the room, the infant may show signs of distress; this is known as stranger anxiety.

A is incorrect. An infant demonstrates disorganised attachment through inconsistent or odd behaviours when separated from or reunited with their caregiver. **B** is incorrect. An infant demonstrates insecure resistant attachment when they do not seek close contact with their caregiver. **C** is incorrect.

Question 20 C

The children are playing a make-believe game. According to Piaget, they are demonstrating symbolic thinking, which is characteristic of the pre-operational stage, not the sensorimotor or concrete operational stages. **C** is correct and **A** and **D** are incorrect. Egocentrism refers to the ability of a child to only view the world from their own perspective and not that of another person. **B** is incorrect.

Question 21 B

Erikson believed that the psychosocial crisis of autonomy versus shame and doubt occurs between the ages of 3 to 5 years. **B** is correct. The psychosocial crisis for children aged from 18 months to 3 years is trust versus mistrust, so **A** is incorrect. For children aged 5–12 years, it is initiative versus guilt, so **C** is incorrect. For children aged 12–18 years, it is identity versus role confusion. **D** is incorrect.

Question 22 C

Persistent bullying in the workplace is a social factor that could contribute to a mental disorder.

C is correct. Very high levels of a neurotransmitter (such as dopamine) and genetic vulnerability are biological factors, not social factors, so **A** and **B** are incorrect. Atypical behaviours are not necessarily interpersonal and thus are not classified as social factors. **D** is incorrect.

Question 23 B

A mental health problem is usually less severe and shorter in duration than a psychological condition (mental disorder). A mental health problem may resolve itself in time and does not require medication as treatment. **B** is correct and **D** is incorrect. Although it may cause some distress, it does not severely interfere with everyday functioning, so **C** is incorrect. A mental health problem does not need to be diagnosed by a mental health professional. **A** is incorrect.

Question 24 D

Michael was experiencing delusions of reference as he thought the radio announcers were speaking specifically to him. **D** is correct. Michael did not suffer from delusions of control, because based on the information provided, he did not seem to believe that an external force or company was trying to control him. **A** is incorrect. He did not believe he was being targeted or followed, as he would if he was suffering from delusions of persecution. **B** is incorrect. Michael did not believe himself to be someone of great importance and so he was not experiencing delusions of grandeur. **C** is incorrect.

Question 25 C

Positive symptoms of schizophrenia are thoughts, feelings and behaviours that are present in addition to the individual's normal manner of functioning; they include hallucinations, delusions and disorganized thinking and speech. **C** is correct. Feeling positive about the future is a positive emotional state that is not to be confused with a positive symptom. **A** is incorrect. Negative symptoms of schizophrenia include loss of motivation or affective flattening. **B** and **D** are incorrect.

Question 26 D

The iris surrounds the pupil and controls its size, thus controlling the amount of light that enters the eye. **D** is correct. The cornea is a transparent, thin layer at the front of the eye. **A** is incorrect. The pupil is the opening within the iris through which light enters the eye, so **B** is incorrect. The lens is the transparent, biconcave structure just behind the iris, involved in focusing light rays on the retina, so **C** is incorrect.

Question 27 B

B is correct; the fovea is a small pit in the central region of the retina that contains a high density of photoreceptors (cones) and no rods. The blind spot is located in the retina at the point where the optic nerve leaves the eye. There are no photoreceptors in the blind spot. **A** is incorrect. The optic nerve is a bundle of neurons transmitting information to the brain. **C** is incorrect. The macula is a larger area within the central region of the retina that includes the fovea. **D** is incorrect.

Question 28 C

'The whole is greater than the sum of its parts' is the basis of Gestalt principles. Regardless of whether monocular or binocular cues are used, we tend to cluster the features of a visual scene so that we perceive them as a whole, entire form and not individual, separate parts.

Question 29 D

The Gestalt process of similarity, where similar items are processed as a group, helped Jezlyn to locate students from her school at the swimming carnival when she saw the students from her school dressed in the same uniform. **D** is correct. Closure refers to when a whole image is perceived by the viewer mentally filling in gaps, which does not occur in this scenario, so **A** is incorrect. Figure-ground, where a contour line helps to delineate the figure so that it stands out from the background does not occur either; so **B** is incorrect. While proximity refers to the physical 'nearness' that groups visual elements together, this principle would not distinguish between the school groups. **C** is incorrect.

Question 30 B

Retinal disparity is a depth cue that relies on the left and right eyes being separated by the nose, and occurs when the brain compares the differences in the retinal images sent from the left and right eyes. The brain then uses this to calculate distance. **B** is correct. If the eyes turned inwards to look at an object close to the face, the tension of the ocular muscles would enable the person to know that the object is very close (convergence). **A** is incorrect. Distance refers to the lens changing shape to determine depth or distance. **C** is incorrect. The sizes of the images on both retinas are the same, so **D** is incorrect.

Question 31 D

The population represents the wider group of research interest, which in this study is primary school children. The sample of the study is Ms Spencer's Grade Four class. The population is not White Hall Primary School only as Ms Spencer is testing high sugar consumption on the concentration of primary school children after conferring with teachers from other primary schools.

Question 32 B

Ms Spencer used her own Grade Four class in the study because it made regular observation quick and easy. This is an example of convenience sampling; **B** is correct. It is not random sampling as not every primary school child had an equal chance of being selected to be in the sample. **A** is incorrect. It is not stratified or stratified random sampling as the population was not subdivided into separate groups (strata) from which the sample was drawn. **C** and **D** are incorrect.

Question 33 D

Perceptual set refers to the readiness or predisposition to perceive stimuli in a certain way according to our expectations. Context, past experience, motivation and culture are all factors that can influence our perception. At the football game, Joel and Harry are both motivated for their own team to play well and win, which leads to them interpreting the game differently. **D** is correct. Culture and past experience would have minimal, if any, influence on the interpretation of this situation, so **A** and **B** are incorrect. The context would not influence their interpretation. **C** is incorrect.

Question 34 A

After taste buds are stimulated, the information is sent through the cranial nerves to the thalamus, which acts as a relay station, before being sent to the gustatory cortex located in the cerebral cortex. **A** is correct and **B** is incorrect. The thalamus is located just above the midbrain, and sensory information is filtered through this part of the brain. The gustatory nerve is an incorrect term, so **C** and **D** are incorrect.

Question 35 D

D is correct; gender does not influence taste perception. Taste perception is influenced by many factors, including food packaging and genetics. **A** and **B** are incorrect. It is also influenced by age; as people age, their taste buds decline in number and their sense of smell deteriorates, so **C** is incorrect.

Question 36 B

B is correct; taste perception reduces with age due to a decline in the number of taste buds, and a decline in sense of smell. **A** is incorrect. Taste buds do not increase in number with age. **C** is incorrect. Being a supertaster means that an individual has more than the average number of taste buds, which tremendously heightens their sense of taste. **D** is incorrect.

Question 37 B

To understand the spread of data, standard deviation must be calculated. Mean, median and mode are all measures of central tendency, so they provide a sense of what is average in a set of data.

Question 38 C

C is correct; synaesthesia is an involuntary condition and cannot be suppressed at will. **A** is incorrect. It is a perceptual experience in which stimulation of one sense involuntarily stimulates another unrelated sense. It is a real experience, not imagined by the individual who has the condition. **B** is incorrect. The experience does not seem to vary in intensity each time. **D** is incorrect.

Question 39 A

The research design used by Leia was repeated measures. **A** is correct. The same group of participants was in both the control and the treatment (experimental) condition. An observational study would involve observing peoples' behaviours and then recording either qualitative or quantitative data. **B** is incorrect. In matched participants, the participants would be divided into groups according to certain characteristics, such as age or gender. **C** is incorrect. If the research design were independent groups, then half the group would have been placed in one treatment condition and the other half would have acted as a control. **D** is incorrect.

Question 40 C

C is correct; the dependent variable that was being measured was the flavour of the chocolate on a five-point scale. The independent variable, which the researcher deliberately manipulated, was the packaging of the chocolate. **B** is incorrect. The presence of possible confounding variables and extraneous variables cannot be determined by the information provided. **A** and **D** are incorrect.

Question 41 C

The rating scale provides numerical or quantitative data that the researcher can then analyse with the use of statistical tests. **C** is correct. The rating scale does not provide opinions of participants or other qualitative data. **A** and **B** are incorrect. Self-reports can be problematic in terms of data collection as people may not always be honest in their responses, or social desirability can occur, which can also affect the accuracy of the data. **D** is incorrect.

Question 42 A

A personal attribution, or dispositional attribution, is the manner by which behaviour is explained by personal characteristics. For example, a person's level of effort or motivation. These are internal factors, so **A** is correct. **B** and **D** are incorrect; attributing behaviour to external or environmental factors would be situational attribution. Situational attribution could include the actions of another person, so **C** is incorrect.

Question 43 B

According to the tri-component model of attitudes, Jessica's enjoyment of running represents the affective (emotional) component of her attitude. **B** is correct. Her regular behaviour of going for a run at least twice a week represents the behavioural component of her attitude, and her belief that regular exercise is good for her health represents the cognitive component of her attitude. **A** and **C** are incorrect. There is no social component of the tri-component model of attitudes. **D** is incorrect.

Question 44 D

D is correct. Julian's attitude has been formed by repeated exposure; he has been exposed to the new brand of chips on a regular basis. It is not known through the information given if Julian has been influenced by direct instruction within his family unit or social group to enable social learning to occur. **A** and **B** are incorrect. Operant conditioning has not occurred as there is no information given regarding a consequence to influence Julian's behaviour of buying the new brand. **C** is incorrect.

Question 45 C

Modern prejudice tends to be more subtle and covert than old-fashioned prejudice, which can be more overt, obvious and explicit. Modern prejudice may be unconsciously held by the individual.

Question 46 A

A group consists of a collection of two or more people who interact with and influence each other, and who share a common goal. Two people playing cards is considered group because they will interact and influence each other as they share the common goal of playing a game. **A** is correct. A number of people is considered too large to be a group if individuals are not able achieve this, even if they have assembled together for a common purpose. The people at the football club, the cinema, and those standing in the ATM queue will not interact and influence each other, therefore they cannot be considered groups. **B**, **C** and **D** are incorrect.

Question 47 A

A is correct; Kiya has expert power within her group. She has experience in media and thus has the skill set the group needs to complete their project. Each group member seems to have equal status, so Kiya does not have legitimate power. **B** is incorrect. Kiya does not have the ability to give negative consequences or remove a positive consequence, so she does not have coercive power. **C** is incorrect. Kiya does not seem to be idolised by the other group members, so she does not have referent power. **D** is incorrect.

Question 48 D

D is correct; in this scenario, Sam is displaying audience inhibition. Sam did not offer help as he was embarrassed that others in the group would negatively judge his skills and actions. The bystander effect would occur if Sam did not help the injured man simply because of the presence of others. **A** is incorrect. Sam did not weigh up the pros and cons of helping the injured man, which means that his actions were not an example of cost-benefit analysis. **B** is incorrect. Diffusion of responsibility would require Sam to think that someone else will take responsibility for him. **C** is incorrect.

Question 49 A

A is correct; Kendall does not provide the girl with help as she has been influenced by her bad mood. Kendall recognises that the girl possibly needs medical attention, and is competent to provide help as she is training to become a paramedic. **B** and **C** are incorrect. Diffusion of responsibility does not occur as the café is almost empty. **D** is incorrect.

Question 50 C

There has been considerable research that indicates that children that come from dysfunctional families are more likely to become bullies. **C** is correct. Being indulged or spoiled by parents, playing sports as a child, or failing school have not been identified as factors that influence the emergence of bullying behaviour. **A**, **B** and **D** are incorrect.

SECTION B**Question 1** (2 marks)

Descartes believed that the mind and body connected in the brain (pineal gland), enabling the mind and body to interact and influence each other. 1 mark

Descartes believed that the mind is an abstract, non-physical entity, whereas the body is a fleshy, physical structure. 1 mark

Question 2 (2 marks)

Penfield used electrical stimulation of the brain (ESB). 1 mark

Penfield electrically stimulated specific areas of patients' cerebral cortices and patients were asked to report on their experiences. He methodically labelled (tagged) each area of the brain with its corresponding function, enabling him to construct a map. 1 mark

Question 3 (3 marks)

a. *Any one of:*

- pupil dilation
- dry mouth (reduced saliva production)
- increased heart rate
- bronchodilation
- increased breathing rate
- release of glycogen in the muscles
- relaxation of the muscles at the neck of the bladder
- reduced digestive processes

1 mark

b. the sympathetic nervous system

1 mark

c. the parasympathetic nervous system

1 mark

Question 4 (1 mark)

The function of a synapse is to transfer information from one neuron (pre-synaptic) to the next neuron (post-synaptic). This allows for communication between neurons. 1 mark

Question 5 (2 marks)

An adult has fewer synapses than a three-year-old child because synaptic pruning has occurred. 1 mark

In an adult, the weak or unused synaptic connections that were formed in earlier years are removed to improve efficiency of the brain. 1 mark

Question 6 (4 marks)

Re-routing: Re-routing occurs when an undamaged neuron finds new connections with other neurons to bypass a damaged area. 2 marks

Sprouting: Sprouting occurs when the dendrites and dendritic spines branch out and grow to form new connections with other neurons. 2 marks

Award 1 mark for each mechanism.

Award 1 mark for each appropriate description.

Question 7 (5 marks)

a. *Any one of the following motor symptoms:*

- tremor
- muscle rigidity
- slowness of movement (bradykinesia)
- instability of posture

1 mark

Any one of the following non-motor symptoms:

- loss/decrease in sense of smell
- change in the fluency of speech
- tiredness
- disturbed sleep
- constipation
- mental health problems such as anxiety or depression

1 mark

b. *Any one of:*

- Animal research led to the development of the drug Levodopa (L dopa).
- Animal research led to the development and use of deep brain stimulation as treatment.

1 mark

c. *Any one of:*

- fMRI: This neuroimaging technique has led to improved accuracy of diagnosis and earlier diagnosis of Parkinson's disease. It can also be used to monitor the patient's response to therapy.
- PET: This neuroimaging technique has enabled early and accurate diagnosis as well as determination of the severity of the illness by identifying the changes in specific parts of the brain.

2 marks

Award 1 mark for identification of an appropriate neuroimaging technique.

Award 1 mark for explanation of the neuroimaging technique.

Question 8 (2 marks)

The twins carry the same set of genes within their cells, which determines the 'blueprint' of development. This is influenced by nature.

1 mark

However, the environment (the nurture side of the debate) can alter the expression of the genes to a certain extent. For example, being outside swimming on a regular basis would have tanned Lauren's skin, bleached her hair and made her more muscular. The regular swimming training would have improved her skill and fitness, thereby improved her swimming times.

1 mark

Question 9 (2 marks)

Deprivation of sight occurred during the first few months of the kitten's life – a critical time for the development of vision. Hence, the kitten has visual impairments even after the operation.

1 mark

A critical period is a period of time in an organism's development when the organism is most vulnerable to deprivation of stimuli or experiences.

1 mark

Question 10 (2 marks)

For example, any one of:

- Abstract thinking: A child who has moved from the concrete operational stage to the formal operational stage can think and reason with abstract concepts that are not required to be physically present. They can follow a sequence of thought and logic when problem solving.
- Idealistic thinking: A child who has moved from the concrete operational stage to the formal operational stage begins to think about global issues, themselves, and their own characteristics and possible pathways in life.

2 marks

Award 1 mark for identification of one significant change.

*Award 2 marks for identification of one significant change **and** description of the change.*

Note: Deductive reasoning and scientific reasoning are also acceptable.

Question 11 (2 marks)

Maladaptive behaviours are behaviours that interfere with a person's ability to adapt or effectively adjust to their environment. When maladaptive behaviours disrupt everyday functioning, they are dysfunctional behaviours.

1 mark

Possible example: When a person does not shower or bathe regularly, this maladaptive behaviour becomes dysfunctional as it is expected that people maintain their personal hygiene.

1 mark

Note: Other appropriate examples are acceptable.

Question 12 (2 marks)

Self-stigma occurs when an individual with a mental disorder accepts and believes other people's negative attitudes about themselves.

1 mark

This leads to low self-image and low self-esteem, which interferes with the individual seeking help.

1 mark

Question 13 (5 marks)

a. Any two of:

- affective flattening (no emotional highs or lows)
- avolition (lack of motivation)
- anhedonia (lack of enjoyment of usual activities)
- alogia (poverty of speech)

2 marks

b. The first hit is genetic vulnerability.

1 mark

The second hit is an environmental stressor such as poverty or loss of employment.

1 mark

c. The main treatment is anti-psychotic medication.

1 mark

Question 14 (3 marks)

a. Transduction is the process by which the electromagnetic energy of light is converted into a neural impulse of electrochemical energy.

1 mark

It occurs within the retina of the eye, in the rods and cones.

1 mark

b. Transmission is the process by which visual information is moved from the eye to the brain via the optic nerve.

1 mark

Question 15 (9 marks)a. *Any one of:*

- The texture of food or drink will determine how much surface area comes in contact with the taste buds in the mouth. For example, juiced apple or apple sauce has a much greater surface area than a chunky piece of apple, thus the flavour of the juice or sauce is perceived as more immediate and intense.
- The length of time that food stays in the mouth affects flavour. For example, thicker, creamier foods and chewy foods are in the mouth for longer and are perceived as more flavoursome.

2 marks

*1 mark for describing one factor.**1 mark for an appropriate example.*

Note: Responses may also refer to sounds of crunching from crisp foods, or fizz from soft drinks, which are often manipulated by food manufacturers and associated advertising.

b. consistency of the custard

1 mark

c. flavour of the custard

1 mark

d. It is predicted that Australians will rate thicker, creamier custard as being more flavoursome than thinner, runnier custard.

3 marks

*1 mark for independent variable.**1 mark for dependent variable.**1 mark for population.*

Note: The direction of the relationship between the independent variable and dependent variable should be clear.

e. *Any two of:*

- Taylah would need to provide participants with identical cups.
- The cups would need to be filled with the same amount of custard.
- The temperature/colour/flavour/sweetness of the custard would need to be the same.
- The participants would need to be provided with identical spoons to eat the custard.

2 marks

1 mark for identifying each way that the impact of extraneous variables could be minimised through standardised procedures.

Question 16 (2 marks)

In this scenario, motivation is influencing Joe's perceptual set. Perceptual set refers to the readiness or predisposition to perceive stimuli in a certain way according to our expectations.

1 mark

Perceptual set can also lead to perceptual distortions or errors. Joe is motivated to see a 'Food Stop' ahead because he is hungry, which leads him to misread the sign.

1 mark

Question 17 (3 marks)*For example:*

Leonardo does not like going to Bourbon Street (affective component) as he believes that the area is dangerous (cognitive component). However, a group of his friends are going to one of the clubs in Bourbon Street for a birthday celebration and Leonardo agrees to attend (behavioural component), despite how he feels and what he thinks about the area.

3 marks

*1 mark for identifying the affective, cognitive and behavioural components.**1 mark for describing consistency between the affective and cognitive components.**1 mark for describing inconsistency between the behavioural component and both the affective and cognitive components.**Note: Any suitable example is acceptable.***Question 18** (3 marks)*Any three of:*

- size of the group
- whether the group members were unanimous or not
- anonymity of members within the group
- awareness of social norms and expectations of acceptable behaviour
- cultural background
- social loafing

3 marks

*1 mark for each factor identified.***Question 19** (4 marks)*Any two of:*

- Sustained contact: Ongoing, close contact between the players during the training camp could have helped to break down the stereotyped ideas about the other players and reduce prejudice.
- Mutual interdependence: The players would have been in direct contact with each other during the training camp and would have had to rely on each other, which could have helped to reduce prejudice.
- Superordinate goals: Having a single goal of being a successful football team at training camp would have ensured that the players worked together, which could have helped reduce prejudice.
- Equality of status: If all the players were seen to be of equal status and equal importance within the team during the training camp, this could have reduced prejudice.

4 marks

*1 mark for each method identified.**1 mark for each associated description applied to the scenario.*

Question 20 (2 marks)

When there was only one other person in the elevator with Gillian, there was a greater feeling of personal responsibility to help, so Gillian was assisted.

1 mark

Any one of:

- When between five to ten people were in the elevator, the bystander effect occurred. In the presence of others, individuals are less likely to provide help to others, compared to when they are alone.
- When between five to ten people were in the elevator, diffusion of responsibility occurred. Each person in the elevator assumed that someone else would take responsibility and help, resulting in no one helping Gillian.

1 mark

Question 21 (10 marks)**Why a code of ethics is essential in all psychological research**

'Ethics' refers to standards and guidelines that enable individuals to abide by the best possible rules of conduct. Psychologists have a moral responsibility to protect participants (both animal and human) who are involved in their research. The Code of Ethics, as set by the American Psychological Association (APA), assists psychologists to make decisions about which behaviours are appropriate and which are inappropriate so that the rights and dignities of participants are always maintained. Ethical standards also ensure that research is necessary and that its purpose is to contribute to the existing body of research, and is therefore of benefit to the community.

Responsibilities that Zimbardo had towards the participants in his study

As a researcher, Zimbardo had the responsibility to ensure that his research had merit and integrity. He should have maintained the value of justice, with all procedures within the study being fair. Zimbardo should have shown respect for the participants' rights to privacy and confidentiality. He also should have ensured that the participants were able to make informed decisions about matters that would affect them. Above all, Zimbardo had the responsibility to ensure that the participants' physical and mental wellbeing would not be compromised in any way.

Ethical requirements that Zimbardo fulfilled when conducting his study

- Zimbardo advertised for participants and participation was voluntary.
- Zimbardo obtained informed consent from all participants before the study commenced. The informed consent was given in signed consent forms.
- Zimbardo selected participants that were of legal age and were not suffering from any condition that prevented them from understanding the nature of the study, as it was explained to them.
- Zimbardo maintained the participants' right to confidentiality. Before the study commenced, he assured the participants that all information about their participation in the study would be kept confidential unless they gave their express permission.

Ethical requirements that Zimbardo did not fulfill when conducting his study

- Zimbardo breached informed consent. Although the participants signed consent forms for participation in the study, they did not consent to being arrested by police in their own homes and then taken in police cars to the prison.
- Zimbardo did not disclose the full extent of the nature of the experiment to the participants. This has been discussed as not being strictly ethical.

- Zimbardo breached the ethical standard of withdrawal rights. Prior to commencement of the study, he should have explained withdrawal rights to all participants. He should have informed them that at any time during the course of the experiment, they had the right to withdraw. A participant's choice to withdraw should have been able to be given without the participant needing to give reasons for their withdrawal. Withdrawal should have been permitted without the possibility of suffering any negative consequences as a result. It was not made clear to the participants that they were able to leave the experiment when they felt under duress. When the first prisoner asked to leave, they were given the impression that this was not allowed. Although one prisoner was released from the study, the general message spread among the participants was that they were not allowed to leave.
- Zimbardo breached the ethical requirement of respect for the dignity and wellbeing of participants, and the no harm principle. It was obvious after two days that some prisoners were highly distressed and were suffering. Participants were exposed to degrading conditions, with the guards subjecting the prisoners to demeaning and humiliating acts. Prisoners' sleep was interrupted on a regular basis and their emotional and mental wellbeing was compromised.

At the conclusion of Zimbardo's study all participants were offered extensive individual and group debriefing to assist with removing any lasting trauma. Zimbardo's study has been subjected to much scrutiny due to the breaches in ethics. Whether the contributions to research and the community outweighed the trauma caused to participants has been debated.

10 marks

*Marks allocated will depend on the quality of the response as follows:
9–10 High; 7–8 Medium–High; 5–6 Medium; 3–4 Low–Medium; 1–2 Low; 0 Not shown.
Note: The question asks for a discussion, which suggests it should be written in prose style.
The inclusion of subheadings is acceptable. The use of dot points for ethical requirements that Zimbardo did and did not fulfill is acceptable. The discussion of Zimbardo's study must include examples. Students must use the correct psychological terms when identifying the ethical principles.*