

PSYCHOLOGY

Unit 2 – Written examination



2016 Trial Examination

SOLUTIONS

SECTION A: Multiple-choice questions (1 mark each)

Question 1

Answer: D

Explanation:

The stimulus energy for touch is kinetic.

Question 2

Answer: B

Explanation:

The stimulus energy for vision is light.

Question 3

Answer: D

Explanation:

Photoreceptors are located in the retina.

Question 4

Answer: D

Explanation:

The absolute threshold is the minimum amount of stimulus energy needed in order to perceive a stimulus.

Question 5

Answer: A

Explanation:

Cones and rods are both photoreceptors.

Question 6

Answer: D

Explanation:

The image on the retina is upside down, blurred and back to front.

Question 7

Answer: A

Explanation:

Reception, transduction and transmission are all part of visual sensation.

Question 8

Answer: B

Explanation:

Selection, organisation, interpretation are the three parts to visual perception.

Question 9

Answer: A

Explanation:

The visible light spectrum range is 360-760nm.

Question 10

Answer: C

Explanation:

Cones assist with visual acuity.

Question 11

Answer: B

Explanation:

Rods assist with peripheral vision.

Question 12

Answer: A

Explanation:

During transduction light energy is converted into electrochemical energy.

Question 13

Answer: C

Explanation:

Each taste bud has approximately 50-150 taste receptors.

Question 14

Answer: B

Explanation:

There are five primary tastes.

Question 15

Answer: A

Explanation:

Umami is received all over the tongue.

Question 16

Answer: C

Explanation:

The tongue has approximately 10 000 taste buds.

Question 17

Answer: A

Explanation:

Perceptual constancies include size and shape.

Question 18

Answer: C

Explanation:

The central principle of Gestalt psychology is that the perception of a whole object or image dominates the perception of its component parts.

Question 19

Answer: A

Explanation:

Camouflage works when it involves the successful manipulation of figure–ground organisation.

Question 20

Answer: A

Explanation:

Retinal disparity explains the slightly different image received by the two eyes.

Question 21

Answer: C

Explanation:

Convergence is a binocular depth cue where the eyes converge.

Question 22

Answer: C

Explanation:

Texture gradient is adding more detail to items that are closer to give the perception of depth.

Question 23

Answer: A

Explanation:

When viewed from different angles, the shape of the books on Ana’s retinas changed but she still perceived them as maintaining their original shape. This is because of the application of shape constancy.

Question 24

Answer: C

Explanation:

The principle known as accommodation that helps us determine depth is the changing shape of the lens to enable a focused image to be produced on the retina.

Question 25

Answer: C

Explanation:

In the Muller-Lyer illusion both lines are the same length.

Question 26

Answer: C

Explanation:

Retinal disparity and convergence are both binocular depth cues.

Question 27

Answer: D

Explanation:

Perceptual set is influenced by previous experience, motivation, emotion.

Question 28

Answer: D

Explanation:

Sight, smell and taste are all involved in the perception of flavour.

Question 29

Answer: A

Explanation:

The Ponzo illusion involves the moon.

Question 30

Answer: B

Explanation:

The Ames room illusion shows that we maintain shape constancy.

Question 31

Answer: B

Explanation:

Monocular depth cues are used when an individual must look through the peephole.

Question 32

Answer: A

Explanation:

Our expectation of flavour is tied to colour.

Question 33

Answer: D

Explanation:

Someone who is suffering from synaesthesia would experience a cross-modal experience, a trigger of a second sensory system in response to sound, a trigger of a second sensory system in response to seeing a certain colour.

Question 34

Answer: A

Explanation:

Dispositional attributions are internal factors.

Question 35

Answer: A

Explanation:

Stereotyping includes assuming all members of the group are the same.

Question 36

Answer: D

Explanation:

Attitudes are learnt, stable and lasting, and an evaluation.

Question 37

Answer: A

Explanation:

Explicit attitudes are where people openly express and state their attitude.

Question 38

Answer: B

Explanation:

Implicit attitudes are involuntary, uncontrollable and sometimes unconscious.

Question 39

Answer: D

Explanation:

Functions of attitudes include predisposing us, interpreting and evaluating.

Question 40

Answer: D

Explanation:

The three components that make up the tri-component model of attitudes are cognitive, affective and behavioural.

Question 41

Answer: A

Explanation:

The component of an attitude that refers to the feelings a person holds towards an object, person, group, event or issue is affective.

Question 42

Answer: A

Explanation:

Prejudice is a negative emotional attitude held towards members of a specific social group.

Question 43

Answer: B

Explanation:

The difference between prejudice and discrimination is that prejudice is an attitude, whereas discrimination is a behaviour.

Question 44

Answer: B

Explanation:

Toula's belief is an example of stereotype.

Question 45

Answer: A

Explanation:

Interactions between the holder of a stereotype and the target of the stereotype is known as inter-group contact.

Question 46

Answer: D

Explanation:

When information is made available to individuals, stereotypes can be reduced. This is an example of cognitive interventions.

Question 47

Answer: A

Explanation:

A swimming teacher gives stickers for good behaviour. This is an example of reward power.

Question 48

Answer: C

Explanation:

Milgram's aim was to discover whether participants would obey an authority figure to carry out actions that caused serious pain to another person.

Question 49

Answer: A

Explanation:

The results found from the 1961 Milgram experiment was that all 40 participants obeyed up to the 300-volt level.

Question 50

Answer: B

Explanation:

The conclusions found from the 1961 Milgram experiment was that people are likely to perform actions contrary to their beliefs if they are instructed to do so by an authority figure.

Question 51

Answer: A

Explanation:

The aim in the 1951 Asch experiment was to investigate the extent to which an individual within a group will conform to the majority opinion.

Question 52

Answer: D

Explanation:

Normative influence refers to a person's tendency to go along with the group so that they will fit in and gain approval.

Question 53

Answer: C

Explanation:

Social loafing refers to the tendency of an individual to reduce their effort when working in a group.

Question 54

Answer: D

Explanation:

The Ku Klux Klan is an example of deindividuation.

Question 55

Answer: D

Explanation:

The Carlton cheer squad a year 11 Psychology class, two people playing hopscotch are all examples of a group.

Question 56

Answer: B

Explanation:

Empathy can be best described as being nice towards someone you don't really like experiencing things from another person's point of view.

Question 57

Answer: A

Explanation:

The murder of Kitty Genovese sparked an interest in the study of helping behaviour. Researchers have concluded that a factor in the lack of assistance rendered to her may be; the bystander effect.

Question 58

Answer: B

Explanation:

In terms of competence, people are more likely to help those in need if they have the necessary skills.

Question 59

Answer: D

Explanation:

One characteristic often used to distinguish altruism from other types of pro-social behaviour is that altruism involves helping someone else when no personal gain or reward is involved.

Question 60

Answer: D

Explanation:

The bystander effect occurs because of diffusion of responsibility, audience inhibition, social influence.

Question 61

Answer: C

Explanation:

The cost-benefit analysis model has 3 stages.

Question 62

Answer: A

Explanation:

Bullying is a form of aggressive behaviour where a person intentionally and repeatedly causes another person injury or discomfort.

Question 63

Answer: D

Explanation:

The effects of bullying include Anxiety, Stress and Depression.

Question 64

Answer: D

Explanation:

Positive influences of the media include developing cultural and political awareness, social skills development and access to news items in 'real time'.

Question 65

Answer: D

Explanation:

Positive influences of video games include empathy, education and improved cognitive function.

SECTION B: Short-answer questions

AREA OF STUDY 1 – What influences a person's perception of the world?

Question 1

Reception or detection is the process of receiving electromagnetic energy (light) from the environment at the site of the visual receptor cells called rods and cones. The visual receptors in the retina then **transduce** or convert the electromagnetic energy into electrochemical energy in the form of neural impulses. These neural impulses can then be **transmitted** or sent to the visual cortex of the occipital lobe in the brain via the optic nerve and along the neural pathways. Again, it is important to remember that the neurons don't travel; it is the message that travels from neuron to neuron. Two types of neurons that transmit information are called **bipolar cells**. These are connected to the photoreceptors. Then **ganglion cells** are activated by the activity in the bipolar cells. It is the axons of the ganglion cells that together form the optic nerve. **Transduction** is a necessary process as without transduction **neural impulses** could not be **transmitted** within the **visual perception system** to the brain.

6 marks

Question 2

The term to describe the **absolute minimum amount of electromagnetic energy** to be present before sensation occurs is known as the **absolute threshold**. When the photoreceptors in the retina detect sensory information the absolute threshold has been reached. Prior to this point, there is no perception. Statistically this is defined as the lowest or weakest level of a particular stimulus that can be detected, on average, 50% of the time.

1 mark

Question 3

1 mark for identification of the sense organs

1 mark for each organ for a total of 2 marks

Vision – Eye

Touch – Skin

Hearing- Ears

Taste – Tongue

Smell - Nose

3 marks

Question 4

There are two types of photoreceptors in the retina – rods and cones.

Rods are specialised to detect

- 1) Dim light and are therefore very important for night vision.
- 2) Rods are also responsible for our peripheral vision.
- 3) Rods are more densely concentrated on the periphery of the retina

Cones are specialised to detect

- 1) Bright light and colour.
- 2) Cones are also important in visual acuity, or sharpness of vision.
- 3) Cones are more densely concentrated on the fovea, the centre of the retina

1 mark given for each correct differentiation of the rod and cone

4 marks

Question 5

Sweetness, saltiness, bitterness, sourness and umami.

5 marks

Question 6

Size constancy.

1 mark

Question 7

Figure-ground - Some aspects of a stimulus appear to stand out as the figure against a plainer background (1 mark). We attribute the contour line to the figure and allow the rest of the image to become the background. (1 mark)

2 marks

Question 8

Retinal Disparity (Binocular Disparity) - A primary binocular depth cue which is caused by the fact that our eyes are 6-7 centimetres apart and thus receive slightly different retinal images. The difference in locations of the images on each eye provides a powerful cue to distance. The brain fuses the two retinal images together to provide us with stereoscopic vision. The nearer an object from the visual fixation point, the greater the degree of retinal disparity. For example, in 'magic eye' pictures, each eye observes a slightly different view of the same scene and the brain fuses the two images together to create a 3-dimensional picture.

Convergence - A primary binocular depth cue where the eyes turn inward to focus on an object so that a single image is formed on both retinas. The closer the object the greater the convergence. This cue can only be used up to a distance of approximately 7 metres. For example, the eyes converge when catching a ball. The degree of muscular tension is detected by the brain and this information is used to judge depth.

1 mark for each identified depth cue, 1 mark for each correct description

4 marks

Question 9

Interposition - A secondary monocular depth cue where one object which is closer, obscures another, more distant object. For example, if a fence obscures part of a house, we know that the fence is in front of the house.

Relative size - A secondary monocular depth cue where if separate objects are expected to be of the same size, the nearer ones are drawn larger and the distant ones are drawn smaller. If an artist wishes to depict two objects of the same size at different distances, creating a sense of depth and distance on a 2-dimensional surface, he/she would draw the more distant object as smaller. This is related to size constancy – we know that the objects are the same size in the real world so judge distance according to the reduction in size of the further object. This effect is dependent upon our familiarity with the objects.

2 marks

Question 10

- 1) Develop more of a taste for bitterness
- 2) At 40, our taste buds die and lose sensitivity.

2 marks

AREA OF STUDY 2 – How are people influenced to behave in particular ways?

Question 11

The most widely used theory relating to attitudes is that of **the tri – component model**. It is often referred to as the *ABC model*. It proposes that an attitude contains three components that must all be present for an attitude to have formed. (1 mark)

- **A – Affective component** – refers to the emotional component of the attitude, including the way you feel towards something. E.g. I *feel* it is wrong to speed on the roads when I am in a rush. (1 mark)
- **B- Behavioural component** – refers to the expression of our attitude through our actions e.g. I will not speed even when I am running late. (1 mark)
- **C – Cognitive component** – refers to thought process of the attitude including our beliefs e.g. I *think* that I need to get up earlier to avoid being late. (1 mark)

4 marks

Question 12

Stereotypes - A collection of beliefs that we have about the people who belong to a certain group, regardless of individual differences among members of that group (1 mark)

Prejudice - Holding a negative attitude towards the members of a group, based solely on their membership of that group (1 mark)

Discrimination - A positive or negative behaviour that is directed towards a social group and its members (1 mark)

1 mark for each appropriate example can also be awarded (examples will vary).

6 marks

Question 13

Status can be defined as how important others in a group perceive an individual's influence to be. A person's status might play out in their power over other members of a group. Power refers to the ability of an individual to control or impact the way others think/feel/behave.

2 marks

Question 14

An appropriate example (1 mark) that includes:

1. Physiological arousal (e.g. increased heart rate) (1 mark)
2. Labelling the arousal with a specific emotion. (1 mark)
3. Evaluating the consequence of helping. (1 mark)

4 marks

Question 15

- Violation of the no harm principle – There was lasting psychological harm experienced by the participants
- Violation of withdrawal rights – Participants were not allowed to voluntarily withdraw from the experiment at any time that they chose.

2 marks

Question 16

Aim: To investigate whether participants would conform in an unambiguous situation in order to be accepted by the majority (1 mark)

Results: Of the 50 participants 74% conformed on at least one occasion giving the wrong answer which was the same as the confederate. (2 marks)

Conclusion: Asch concluded that participants conformed because they wanted to belong to the group and because they believed the other members of the group were better informed than them. (2 marks)

5 marks

Question 17

A description of any two of:

- Distraction (decrease a person's ability to focus)
- Negative health consequences (addiction)
- Social isolation (less face-to face with others)
- Social media can track personal and professional information
- Privacy at risk
- Negative educational impact (abbreviations etc.)
- Misinformation (not everything is accurate)
- Exposure to online predators
- Sexualising
- grooming

4 marks

Question 18

The use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature.

1 mark

SECTION C – Short answer and extended response questions

Question 1

Independent variable: Rubbish in the yard (a situation where help was required)

Dependant variable: How many people picked up the rubbish and demonstrated altruistic behaviour.

2 marks

Question 2

Altruism is when we act to promote someone else's welfare, even at a risk or cost to ourselves.

1 mark

Question 3

Convenience sample. No participants were allocated into groups.

2 marks

Question 4

1. Confidentiality – the researcher must not disclose information that may identify the participants.
2. Voluntary participation – participants must take part under their own free will with no duress applied.
3. Informed consent – participants must be fully informed of the nature and purpose of the research, particularly in respect of the procedures that are involved.

4. Withdrawal rights – participants must be informed of their right to leave the research at any stage.
5. Where deception has been necessary to safeguard the integrity of the research the participants must be fully debriefed at the conclusion.
6. Debriefing – the researcher must provide the participants with a full explanation of the research, its purpose and any conclusions that are reached, at the end of the research.

10 marks