

Trial Examination 2010

VCE Psychology Unit 1

Written Examination

Suggested Solutions

SECTION A: MULTIPLE-CHOICE QUESTIONS

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D

16	A	B	C	D
17	A	B	C	D
18	A	B	C	D
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21	A	B	C	D
22	A	B	C	D
23	A	B	C	D
24	A	B	C	D
25	A	B	C	D
26	A	B	C	D
27	A	B	C	D
28	A	B	C	D
29	A	B	C	D
30	A	B	C	D

31	A	B	C	D
32	A	B	C	D
33	A	B	C	D
34	A	B	C	D
35	A	B	C	D
36	A	B	C	D
37	A	B	C	D
38	A	B	C	D
39	A	B	C	D
40	A	B	C	D
41	A	B	C	D
42	A	B	C	D
43	A	B	C	D
44	A	B	C	D

Question 1 D

The currently accepted definition of psychology is ‘the scientific (or systematic) study of behaviour and mental processes’.

Question 2 B

Psychology has evolved as an empirical science from philosophy in combination with the study of natural sciences.

Question 3 C

Psychology has been considered as an empirical science since the late 19th century. In 1879, Wilhelm Wundt established the first laboratory at Leipzig University in order to systematically study psychological phenomena.

Question 4 B

Empiricism refers to the systematic gathering of data through careful and objective observation and measurement, i.e. using scientific methodology (research methods).

Question 5 B

Psychology is considered to be a scientific discipline (and not a pseudoscience) because of the application of the scientific method, i.e. gathering information by conducting research.

Question 6 C

Being qualified medical practitioners, psychiatrists are able to prescribe medication and to perform medical procedures, whereas psychologists are not, and must therefore treat clients using various psychotherapies. Psychiatrists also have the authority to hospitalise patients who are deemed to be a danger either to themselves or others. Both psychiatrists and psychologists can work in private practice and hospitals.

Question 7 C

A child with delayed language and social difficulties would best be assessed by an educational or developmental psychologist.

Question 8 B

A person suffering chronic headache and memory impairment would be advised to consult an expert in neuropsychology, as there is likely to be an issue with brain function. A neuropsychologist is a specialist best qualified to diagnose and treat such problems.

Question 9 B

Behaviourists believe that behaviours are moulded through learning due to interaction with the environment.

Question 10 A

Examining data from brain imaging and recording technologies reflects the biological approach, as an organism’s biological make-up is being studied.

Question 11 D

Factors such as ethnicity, religion and socio-economic status contribute to understanding behaviour from the socio-cultural perspective.

Question 12 D

Visual perception is the term that refers to the interpretation of visual sensory information and making it meaningful to the viewer (making sense of visual stimuli).

Question 13 A

Visual sensation begins with the process of reception, the first phase of visual sensation, when light (electromagnetic energy) is detected by the sensory receptor cells (rods and cones) in the retina of the eye.

Question 14 A

Sensation is purely a physiological process and is similar for people with normal vision, while perception involves both physiological and psychological processes. Perception can vary amongst individuals as it can be affected by factors such as mood, knowledge, expectations, motivation and culture.

In the current example, the participants with knowledge of Mandarin were able to interpret the stimuli in a meaningful way, whereas the English speakers could only perceive the characters as abstract figures.

Question 15 C

Information from the left visual field is captured by the right sides of the retina of both eyes and transmitted to the right hemisphere, while information from the right visual field is captured by the left sides of the retina of both eyes and transmitted to the left hemisphere.

Question 16 C

The mental predisposition to interpret information according to expectations is known specifically as 'perceptual set'.

Question 17 D

In the current example, perceptual set was established due to Lauren's subconscious hope or assumption that her report was well-written. This expectancy was therefore influenced by her motivation.

Question 18 C

Prior experience, context, emotional state and motivation are all dependent upon cognitive processes, mental awareness gained through experience.

Question 19 D

The constant misinterpretation of a visual stimulus so that it appears to be different from physical reality is known as a visual 'illusion'.

Question 20 D

The discrepancy in the power of the Müller-Lyer illusion between groups living in different settings has been attributed to the influence of socio-cultural factors. In the current example this includes living in a 'carpentered world' with exposure to architecture structured at right angles, as opposed to an absence of such structures. Cultures living in environments with angular structures are assumed to be more influenced by the visual impact of the angles due to the depth cues they provide in the physical setting.

Question 21 A

Psychological phenomena are investigated using research methods and reported in scientific journals. The researcher seeks to obtain valid and reliable data. Mental processes can be investigated through inference by measuring certain aspects of behaviour. The content of contemporary psychology textbooks should all be based on legitimate research findings.

Question 22 A

The primary purpose of codes of ethics in psychological research is to protect the wellbeing of participants. Codes of ethics are not devised to assist with experimental designs for the purpose of accumulating data for its own sake.

Question 23 C

‘Development’ refers to a series of changes in a variety of areas (motor, perceptual, cognitive, emotional, social) across the lifespan from conception to death. It includes the decline in abilities (not just progress).

Question 24 B

A human organism from birth to the age of one month is known as a ‘neonate’ (or ‘newborn’).

Question 25 D

‘Nature’ refers to genetic make-up inherited from biological parents (also known as ‘heredity’), while ‘nurture’ refers to environmental influences as the organism interacts with objects, persons and events. ‘Maturation’ is a developmental process that depends on both heredity and the environment.

Question 26 C

Harlow, Bowlby and Ainsworth, notable researchers in the field of infant attachment, did not propose ‘stage’ theories. Piaget, Erikson and Kohlberg described cognitive, psychosocial and moral development as occurring in age-related spans or ‘stages’.

Question 27 D

While stage theories are convenient when describing aspects of development with reference to particular achievements mastered along the way, a limitation is that there are differences among individuals and not everyone conforms precisely to the proposed stages. Individuals might achieve milestones earlier or later, or skip aspects of the theoretical stages altogether.

Question 28 B

Gibson and Walk (1960) investigated the ability of infants to perceive three-dimensional depth (an aspect of perceptual development) using an apparatus that they called a ‘visual cliff’.

Question 29 D

The key finding of Gibson and Walk’s (1960) research was that infants with crawling experience did perceive the apparent drop, as they refused to crawl across it when beckoned by their mother, compared with crawling across the ‘shallow’ side.

Question 30 B

Harlow found that frightened infant monkeys sought refuge with a cloth-covered 'surrogate mother', rather than a wire surrogate equipped with a feeding bottle. He concluded that contact comfort was more important for attachment to occur than purely physical nurturing.

Question 31 A

Bowlby proposed that the need for attachment was innate (or inborn) and that it was necessary for emotional health.

Question 32 C

Jerry appears to be demonstrating 'avoidant' attachment as he takes little notice of his mother. He does not show signs of distress when the mother leaves, so there is no evidence of separation anxiety. A child who is securely attached would become distressed when left and happy when the mother returns, while a child demonstrating resistant attachment would be upset when left and reject the mother when reunited.

Question 33 D

According to Bowlby and Ainsworth, infants who are deprived of attachment do not demonstrate separation anxiety, but are likely to experience poor emotional relationships in the future. A child who is securely attached to its major caregiver has good prospects for developing healthy emotional relationships with others later in life.

Question 34 A

The terms 'assimilation' and 'accommodation' are central to Piaget's theory of cognitive development and refer to how new information is integrated with existing information, and how existing cognitive frameworks are adjusted to fit in the new information respectively.

Question 35 B

According to Piaget the inability to view the world from another's perspective is termed 'egocentrism'. Egocentrism is overcome during the 'pre-operational' stage, by approximately age 7.

Question 36 B

The formal operational stage is characterised by sophisticated forms of manipulating information, such as logical reasoning and abstract thinking.

Question 37 A

Erikson's theory of psychosocial development is an attempt to explain how individuals resolve personal conflicts that develop personality and lead to the ability to interact with others.

Question 38 C

According to Erikson the 'identity versus confusion' crisis is faced by adolescents in Stage 5, while Stage 8 is the final stage occurring in late adulthood, where the issue of 'integrity versus despair' needs to be resolved.

Question 39 A

When investigating moral development Kohlberg presented his participants with scenarios describing moral dilemmas. He observed how individuals of various ages solved the dilemmas and the reasoning behind their choices.

Question 40 A

‘Doing the right thing’ for fear of being caught and punished is moral reasoning at a ‘preconventional’ level, according to Kohlberg’s theory.

Question 41 C

Autism spectrum disorders and attention-deficit hyperactivity disorder are typical among young children, while anxiety disorders and schizophrenia usually develop later in life, during adolescence (or adulthood).

Question 42 B

Mental disorders can develop at any time during the lifespan, though particular disorders can be associated with certain age groups. A mental disorder rarely leads to violent behaviour, while being institutionalised can be detrimental to people with such disorders.

Question 43 D

Baltes believed that strategies involving carefully selecting achievable goals enabled the successful achievement of those outcomes (optimalisation). Hence an older person who pursues age-appropriate activities within their limits should be able to cope well. Baltes did not suggest that ageing could be prevented.

Question 44 A

Withdrawal rights must be observed during a research procedure, while debriefing must occur immediately afterwards. Informed consent and voluntary participation must be gained prior to the study’s commencement, and confidentiality is to be maintained at all times. Deception should be avoided if at all possible, and counselling should be part of debriefing, if necessary.

SECTION B – SHORT-ANSWER QUESTIONS

Question 1

- a. Organisational psychologists are employed in workplace settings in order to promote staff wellbeing and therefore productivity. 1 mark
- b. Sport psychologists work with (usually elite) athletes (individuals or teams), as well as coaches, in order to assist them to reach their full potential. 1 mark

Question 2

Below are some examples of the type of responses required for the influential figures chosen.

- a. **Socrates:** One of the notable Ancient Greek philosophers (470–399 BC) – speculated about the human condition using the philosophical methods of logic and reasoning (rather than scientific experimentation); 1 mark
theorised about many aspects of human experience and the influence of heredity in individual differences amongst humans. 1 mark
- b. **Wilhelm Wundt:** German physician turned psychologist (1832–1920) – considered a founding father of modern psychology as he established the first laboratory for systematically studying consciousness at Leipzig University in 1879; 1 mark
believed that consciousness should be studied by analysing separate elements, an approach known as ‘structuralism’ OR blended philosophy and physiology together with scientific methodology. 1 mark

Similar responses for the remaining figures (Plato; Aristotle, Descartes, Charles Darwin, William James, Hermann Ebbinghaus, Sigmund Freud, John B Watson, Carl Rogers) are also acceptable.

Question 3

- a. i. Any **one** of the following:
astrology, crystal healing, graphology, iridology, numerology, palmistry, phrenology, psi abilities such as extrasensory perception (including clairvoyance, precognition and telepathy), psychokinesis, Tarot, Scientology. 1 mark
- ii. *Below are some examples of the types of responses required to describe the chosen pseudoscience.*
- **Astrology:** describing personality and predicting life events by analysing the positions of heavenly bodies at particular points in time.
 - **Graphology:** describing personality after an analysis of one’s handwriting. 1 mark
- b. Pseudosciences (*any one of the following*):
- are not based on controlled scientific methods for gathering data, nor are they based on sound empirical evidence;
 - result are not consistent/ cannot be replicated;
 - cannot be tested using scientific methods;
 - information is presented selectively (rather than collectively);
 - explanations tend to be subjective and vague rather than objective and precise. 1 mark

Question 4

Students choose **one** from each of the options below:

- **Similarities:** Both are concerned with the mental wellbeing of humans – helping to deal with mental and behavioural problems or disorders; both can apply psychotherapies to treat patients. 1 mark
- **Differences:** Psychiatrists are trained medical doctors who have specialised in psychiatry, taking 13 years to become qualified; can prescribe medication, perform medical procedures and hospitalise patients; and tend to work in hospitals or private practice. Psychologists complete a degree majoring in psychology followed by an honours year and two more years of either research and further study or supervised work in the field; cannot prescribe medication, perform medical procedures or hospitalise patients, but use psychotherapy and counselling to assist clients; work in a wide variety of settings including many unrelated to clinical problems, such as education, sport, business, government departments. 1 mark

Question 5

- a. The lens focuses light that is reflected off objects in the environment onto the retina at the back of the eye. 1 mark
- b. Transduction is the process of converting electromagnetic energy (light) into electrochemical energy (by the photoreceptor cells in the retina). 1 mark
Transmission is the process of sending neural impulses (in the form of electrochemical energy) from the retina to the visual cortex in the brain. 1 mark
- c. Selection occurs along the neural pathway when feature detector cells respond to and encode particular aspects of a visual stimulus such as shapes, spots and angles of lines. 1 mark
Organisation is the process of reassembling the individual features (previously identified by the feature detector cells) into a whole image (in readiness for interpretation). 1 mark

Question 6

- a.
 - i. Gestalt principles describe the tendency to simplify visual stimuli by grouping them to create a whole form, rather than separate details. 1 mark
 - ii. Depth principles are both bodily and environmental cues that enable the perception of three-dimensional space, or depth and distance (from the observer and objects in the environment and between objects in the environment). 1 mark
- b.
 - i. *Below are examples of the type of response required for the Gestalt principle chosen.*
 - **Figure-ground:** the more prominent aspect of a visual stimulus is separated from the less significant background.
 - **Closure:** the subjective tendency to supply missing contours in a visual stimulus so as to perceive a whole. 1 mark

Other alternatives include: Similarity, Proximity

- ii. *Below are examples of the type of response required for the Depth cue chosen.*
 - **Retinal disparity:** a primary (within-body) binocular cue that signals distance by fusing together the two slightly different images of the same object transmitted to the brain from each retina.
 - **Relative size:** a secondary (environmental) monocular cue whereby an object that casts a larger image onto the retina is perceived as being closer to the observer than an object that casts a smaller image on the retina. 1 mark

Other alternatives include: Linear perspective (environmental), Convergence (within-body), Accommodation (within-body), Interposition (environmental), Texture gradient (environmental), Height in the visual field (environmental).

Question 7

Either **one** of the following:

- **Müller-Lyer illusion:** The line with the feather-tails is perceived as being longer than the line with the arrow-heads even though they are both the same length. According to the carpentered world hypothesis the line endings act as depth cues, whereby the feather-tailed line is subconsciously perceived as the inside corner of a room and therefore further from the viewer, while the arrow-headed line is perceived as the outside corner of a building projecting towards the viewer. The line that appears to be further away should appear smaller, but its retinal image is the same length as the 'closer' line, so it looks too big.
- **Ames room:** When viewed through a peephole at the front of the structure, a person moving along the back wall of an Ames room appears to grow large and shrink as they walk across. Although the space appears to be a regular rectangular shape it has in fact been constructed as follows: the room is a trapezoidal shape with the back wall angled so that one corner is twice as far from the peephole than the other corner. The ceiling is high over the distant corner but slopes down towards the nearer corner, while the floor slopes up towards the nearer corner creating a cramped space. Features in the room (such as checkered floor and windows) have been distorted to create the impression that the room is a regular shape. The peephole eliminates the ability to use binocular depth cues.

2 marks

*2 marks for either explanation – teachers use their discretion to allocate 0, 1 or 2 marks
Similar responses are acceptable if alternative illusions have been studied.*

Question 8

Research is conducted to investigate psychological phenomena. All psychological information published in textbooks is based on research findings. 1 mark

Question 9

The nature versus nurture debate is about the relative importance of genetic make-up (heredity) and the environment on development. 1 mark

It is currently accepted that both nature and nurture interact and their comparative importance is difficult to quantify. 1 mark

Question 10

Affordances are possibilities (actual or perceived) that the environment offers for an organism to be able to interact with it. Development occurs when the organism takes the opportunity to use or experiment with the environmental stimuli. 1 mark

Differentiation refers to being able to discern between stimuli in the environment. Development has occurred when the organism interacts effectively within their environment due to knowing which opportunities to utilise and which to ignore. 1 mark

Question 11

- a. Attachment: the emotional bond that develops between an infant and its primary caregiver(s). 1 mark
- b. Characteristics of the caregiver that facilitate attachment: being responsive to the needs of the infant (Ainsworth's 'sensitive responsiveness'); 1 mark
 Characteristics of the infant that facilitate attachment: relaxed, cheerful and easygoing temperament; OR healthy and regular feeding and sleeping routine. 1 mark
- c. Attachment deprivation is likely to cause emotional problems for the infant resulting in avoidant or resistant attachment (and not secure attachment); OR early emotional problems could lead to difficulties forming happy and stable personal and social relationships later in life. 1 mark

Question 12

- a. *Either one of:*
- **Object permanence:** the awareness that objects continue to exist even when they are out of sight.
 - **Goal-directed behaviour:** Carrying out an action after making a deliberate decision to do so. 1 mark
- b. i. concrete operational 1 mark
- ii. Classification: Show child a picture card with eight pineapples and four oranges. Ask child: How many pineapples are there? How many oranges are there? Are there more pineapples or more fruit in the picture? If the child correctly responds that there is more fruit, they have mastered classification; if they say 'more pineapples' they have not mastered classification. 2 marks
- 1 mark for an appropriate stimulus*
1 mark for appropriate questions

Question 13

- a. Erikson proposed that psychosocial development depended on the successful resolution of a series of eight 'crises' or challenges. Each crisis had two possible outcomes, one positive and one negative. Positive outcomes promoted a successful sense of self and others, while negative outcomes led to problems for the individual in their social environment. 1 mark
- 1 mark for stating that the theory was based on the ability to resolve challenges with two possible outcomes – one positive, the other negative*
- b. An infant who has his physical and emotional needs met consistently will 'trust' the environment and develop a stable and content disposition, 1 mark
 whereas an infant who is not cared for adequately or in a predictable way may develop negative traits such as anxiety and suspicion due to 'mistrust'. 1 mark

Question 14

- Conventional level: the person abides by rules because they prescribe correct behaviour/believe it is necessary to conform to these rules. 1 mark
- Postconventional level: the person is able to use their discretion to decide what is right or wrong according to their personal assessment of what is ethically appropriate. 1 mark

Question 15

Any **one** of the following:

- anxiety disorders such as PTSD (post-traumatic stress disorder)
- affective disorders such as bipolar or major depression
- substance use disorders such as alcoholism, drug addiction
- cognitive disorders such as delirium, dementia
- impulse control disorders such as pathological gambling, pyromania, kleptomania
- sexual disorders including the paraphilias (e.g. pedophilia, exhibitionism, voyeurism)

2 marks

Students must name the disorder and demonstrate their understanding by writing a brief description, in order to gain two marks

Question 16

Selection refers to focusing on appropriate and achievable goals, while avoiding unnecessary or threatening tasks; optimisation is employing strategies to ensure that the goals can indeed be achieved; compensation involves substituting viable alternatives for capacities that may have become lost or diminished. By applying these principles an older person can continue to function effectively. 2 marks

1 mark for indicating that the three processes narrow down activities to achievable outcome

1 mark for stating that this leads to effective functioning in old age

Question 17

Any **two** of the following:

- The informed consent of a parent or guardian must be obtained for a child under 18 years of age.
- The child must be willing to participate and not be pressured in any way.
- The researcher must be vigilant and ensure that the child experiences no psychological or physical distress.
- At the first sign of any distress, the researcher must invite the child to withdraw.
- The child's confidentiality must be maintained.
- The parent or guardian must be debriefed.
- The child must depart the procedure with no lingering ill-effects.

2 marks