



2018 Trial Examination

STUDENT
NUMBER

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Letter

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PSYCHOLOGY

Unit 1– Written examination

Reading time: 15 minutes

Writing time: 1 hour and 30 minutes

QUESTION & ANSWER BOOK

Structure of book

<i>Section</i>	<i>Area of study</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	1. How does the brain function?	22	22	22
	2. What influences psychological development?	23	23	23
B	1. How does the brain function?	5	5	15
	2. What influences psychological development?	10	10	30
				Total 90

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is permitted in this examination.

Materials supplied

- Question and answer book of 19 pages.

Instructions

- Print your name in the space provided on the top of this page.
- All written responses must be in English.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic communication devices into the examination room.

SECTION A – Multiple-choice questions

Instructions for Section A

Answer all questions.

Choose the response that is correct or that best answers the question.

A correct answer scores 1, an incorrect answer scores 0.

Marks will not be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

Question 1

The Ancient Egyptians believed that

- A. the heart was the centre of reason and intelligence.
- B. the brain was the centre of reason and intelligence.
- C. mummification preserved a person's life.
- D. removal of the heart during mummification was unimportant.

Question 2

The Ancient Greeks believed that

- A. the heart was the seat of all mental processes.
- B. the brain was the seat of all mental processes.
- C. the brain versus heart debate had merit.
- D. the mind-body problem was important.

Question 3

According to Gall, mental abilities and personality were controlled by 27 specific brain organs. Which of the following are examples of these brain organs?

- A. friendship
- B. ideality
- C. hope
- D. all of the above

Question 4

Phrenology is a process that involves

- A. mapping the areas of each lobe.
- B. observing the bumps on someone's head to determine characteristics.
- C. a reading of the stars position at any given time.
- D. the study of the people and modelling.

SECTION A - continued

Use the following information to answer Questions 5-8

Dulcie is cooking dinner when she hears her stomach growling.

Question 5

Dulcie's response is a result of which nervous system?

- A. Somatic
- B. Autonomic
- C. Central
- D. Parasympathetic

Question 6

When Dulcie eats her food which part of the brain controls digestion?

- A. medulla
- B. pons
- C. cerebellum
- D. reticular formation

Question 7

The part of the brain that receives initial information from her nose that her meal smells delicious is the

- A. frontal lobe.
- B. hypothalamus.
- C. thalamus.
- D. the right parietal lobe.

Question 8

The neurons responsible for initiating the movement of using cutlery to eat her dinner are

- A. motor neurons.
- B. sensory neurons.
- C. interneurons.
- D. none of the above

Question 9

Which of the following lists examples of neuroimaging techniques?

- A. CT, PET and MRI
- B. EEG, CT and MRI
- C. ESB, EEG and TSM
- D. PET, EEG and ESB

SECTION A - continued
TURN OVER

Question 10

Kerrie is undergoing a surgical procedure and she is awake on the operating table. Her doctor is able to map the areas of her brain using a mild electrical impulse. Kerrie's procedure is known as

- A. electroencephalograph.
- B. electrical brain stimulation.
- C. transcranial magnetic stimulation.
- D. deep brain stimulation.

Question 11

Angus is having a non-invasive procedure where a high-resolution 3D image of the brain is captured. Angus lies down and in quick succession a series of x-rays are taken. Angus' procedure is known as

- A. CT.
- B. X ray.
- C. MRI.
- D. PET.

Question 12

The function of the peripheral nervous system is

- A. to communicate information from the body's organs, glands, and muscles to the CNS.
- B. to control the function of internal organs.
- C. to enable an organism to interact with the environment.
- D. none of the above

Question 13

The central nervous system is comprised of the

- A. brain and spinal cord.
- B. somatic and central nervous systems.
- C. autonomic nervous system and the somatic nervous system.
- D. the spinal cord and the sympathetic nervous system.

Question 14

The role of glial cells is to

- A. surround neurons and hold them in place.
- B. insulate one neuron from another.
- C. remove dead neurons.
- D. all of the above

SECTION A - continued

Question 15

The main function of the hindbrain is to

- A. create neural information to send between hemispheres of the brain.
- B. support bodily functions and link the spinal cord and brain.
- C. control breathing and digestion.
- D. control arousal.

Question 16

The elimination of excess neurons and synapses is known as

- A. synaptic pruning.
- B. circuit formation.
- C. proliferation.
- D. myelination.

Question 17

During frontal lobe development in adolescence there is

- A. less higher order thinking.
- B. less activity of the amygdala.
- C. a burst of cortical white matter.
- D. a burst of production of cortical grey matter.

Question 18

What is the name of the structure that enables communication between the left and right hemispheres?

- A. cerebral cortex
- B. corpus callosum
- C. frontal lobe
- D. cerebellum

Question 19

Which statement is true in relation to the cerebral cortex?

- A. The convoluted structure of the cerebral cortex decreases its surface area.
- B. The convoluted structure of the cerebral cortex increases its surface area.
- C. The smaller the cerebral cortex, the more likely an organism is capable of intelligent thought and behavior.
- D. The cerebral cortex is 10mm thick.

SECTION A - continued
TURN OVER

Question 20

Periods in development where there is social sensitivity to certain environmental factors are known as

- A. sensitive periods.
- B. critical periods.
- C. neural development.
- D. developmental plasticity.

Question 21

The myelination period begins

- A. before a baby is born.
- B. at birth.
- C. during adolescence.
- D. at the age of 23.

Question 22

Which of the following statements is true about plasticity?

- A. A young brain has more plasticity because it has more neurons.
- B. An old brain has more plasticity because it has more neurons.
- C. A young brain has more plasticity because it has less neurons.
- D. An old brain has more plasticity because it has less neurons.

Question 23

Ainsworth described which three categories of attachment?

- A. stranger attachment, insecure attachment and secure attachment
- B. avoidant attachment, insecure attachment and resistant attachment
- C. insecure avoidant attachment, secure attachment and insecure resistant attachment
- D. calm attachment, hysterical attachment and benevolent attachment

Question 24

The dependent variable in Harlow's research on rhesus monkeys was

- A. the cloth surrogate.
- B. the wire surrogate.
- C. the surrogate with food and water.
- D. whether an attachment was formed.

Question 25

Piaget proposed that during cognitive development, the brain builds

- A. schemata.
- B. accommodations.
- C. assimilations.
- D. cognitive development.

Question 26

According to Piaget, children continuously take in, process, organize and use new information in ways that enable them to adjust to their environment. Piaget referred to this process as

- A. accommodation.
- B. assimilation.
- C. object permanence.
- D. centration.

Question 27

Two key accomplishments of the pre-operational stage are

- A. conservation and classification.
- B. transformation and animism.
- C. abstract thinking and logical thinking.
- D. reversibility and object permanence.

Question 28

Egocentrism is common among children in the _____ stage of cognitive development.

- A. operational stage
- B. pre-operational stage
- C. post-operational stage
- D. non-operational stage

Question 29

Stella is an excellent tennis player whereas Richie cannot play tennis very well. The ability to play tennis is due to which influences?

- A. genetic
- B. environmental
- C. learning
- D. all of the above

**SECTION A - continued
TURN OVER**

Question 30

Erikson's theory of development is based on

- A. psychosocial development.
- B. emotional development.
- C. perceptual development.
- D. cognitive development.

Question 31

Erikson's second stage of development is described as

- A. industry versus inferiority.
- B. generativity versus stagnation.
- C. autonomy versus shame.
- D. trust versus mistrust.

Question 32

According to Erikson, the attitude of initiative versus guilt is formed during which stage of his theory?

- A. Stage 1
- B. Stage 3
- C. Stage 5
- D. Stage 2

Question 33

Which of the following is an example of abnormal behaviour?

- A. 3 year old Marley eats all her food with her hands
- B. 30 year old Dylan eats all his food with his hands
- C. 91 year old Maeve has false teeth
- D. 10 year old Jacinta has lost 16 baby teeth

Question 34

According to the Mental Health Continuum Model, an example of a 'reacting' behaviour where a person experiences 'common and reversible distress' is

- A. having a negative attitude.
- B. delusions.
- C. good level of concentration.
- D. procrastination.

SECTION A - continued

Question 35

A person must exhibit how many symptoms of gambling to be diagnosed as a pathological gambler?

- A. 10 or more
- B. 5 or more
- C. 3 or more
- D. 20 or more

Question 36

Symptoms of anxiety can be divided into four different components. These are:

- A. emotional, biopsychosocial, extreme and weak.
- B. emotional, cognitive, behavioural and physiological.
- C. psychological, physiological affective and behavioural.
- D. none of the above

Question 37

Schizophrenia is described as

- A. severe disturbances in thinking, emotions and behavior.
- B. behavior that is considered abnormal or atypical.
- C. extreme moods and shifts in emotions.
- D. none of the above.

Question 38

An example of a personality disorder is

- A. avoidant personality disorder.
- B. antisocial personality disorder.
- C. narcissistic personality disorder.
- D. all of the above

Question 39

Internal and external factors can affect mental health. An example of an internal factor is

- A. personality.
- B. family.
- C. education.
- D. none of the above

SECTION A - continued
TURN OVER

Question 40

Internal and external factors can affect mental health. An example of an external factor is

- A. intelligence.
- B. employment.
- C. self-esteem.
- D. none of the above

Question 41

Psychosis refers to

- A. difficulties with thoughts, feelings and behaviours.
- B. a loss of contact with reality.
- C. an ongoing mental health problem.
- D. all of the above

Question 42

Neurosis refers to

- A. difficulties with thoughts, feelings and behaviours.
- B. a loss of contact with reality.
- C. an ongoing mental health problem.
- D. all of the above

Question 43

A contributing biological factor that plays a role in addictive disorders is

- A. high levels of GABA.
- B. low levels of GABA.
- C. adrenaline reward system.
- D. the dopamine reward system.

Question 44

Ira suffers from an anxiety disorder. A cognitive component of this disorder is

- A. avoiding the situation.
- B. worrying about the situation.
- C. sweating.
- D. none of the above

Question 45

A phobia is best described as

- A. an irrational fear of a specific object or situation.
- B. fear of leaving the house.
- C. extreme moods.
- D. excessive fear.

END OF SECTION A

SECTION B - Short-answer questions

Instructions for Section B
Answer all questions in the spaces provided.

Question 1 (2 marks)

a. Explain the brain versus heart debate.

1 mark

b. Explain the mind-body problem.

1 mark

SECTION B - continued
TURN OVER

Question 2 (4 marks)

Distinguish between DSB (Direct Brain Stimulation) and MRI (Magnetic Resonance Imaging).

Question 3 (2 marks)

Andrea is playing basketball. She dribbles the ball down the court with her right hand and performs a layup and shoots a goal.

- a. Which hemisphere of the brain is responsible for the movement of Andrea's right hand to dribble?

1 mark

- b. Which lobe of the brain is responsible for Andrea's movement of the skeletal muscles in her legs as she performs her layup?

1 mark

SECTION B - continued

Question 4 (2 marks)

Complete the table below.

Structure	Function
Cerebellum	
Medulla	

Question 5 (5 marks)

Define the following terms:

Dendrites: _____

Axon: _____

Myelin: _____

Axon terminals: _____

Glial cells: _____

Question 6 (3 marks)

Differentiate between the periods of development in brain structure and function of infants and adolescents.

SECTION B - continued
TURN OVER

Question 7 (2 marks)

a. What is the role of the sympathetic nervous system?

1 mark

b. What is the role of the parasympathetic nervous system?

1 mark

Question 8 (3 marks)

Describe how animals and neuroimaging techniques have been used to develop an understanding of Parkinson's disease.

SECTION B - continued

Question 9 (4 marks)

Outline Harry Harlow's theory of attachment. Include the procedure and results.

Question 10 (4 marks)

Describe the difference between the sensorimotor stage and the pre-operational stage, indicating key accomplishments according to Piaget and giving an example for each.

SECTION B - continued
TURN OVER

Question 11 (4 marks)

Complete the following table:

Theory	Description	Advantage or Disadvantage
Piaget's four stage theory.		
Erikson's eight stages of development		

*Read the following research investigation. Questions 12-15 relate to this investigation.
Answer all the questions.*

Dr Monna is trialing a new drug to help sufferers of schizophrenia. Half the participants are given the drug while the other half are given a placebo. Dr Monna uses patients from his friend's clinic. Results show the drug has had a significant effect on preventing hallucinations amongst the experimental group.

Question 12 (2 marks)

Identify the independent and dependent variables for the research investigation.

Question 13 (1 mark)

What type of sampling was used in this research investigation?

Question 14 (4 marks)

Name and describe two ethical considerations that Dr Moona must adhere to?

SECTION B - continued
TURN OVER

Question 15 (3 marks)

What is meant by the two-hit hypothesis as an explanation of developing schizophrenia?

END OF QUESTION AND ANSWER BOOK

