

Practice exam questions: Mind, brain and body

Instructions

- Each multiple-choice question is worth 1 mark.
- Short-answer questions are worth 1 mark unless otherwise indicated.

Consciousness

Multiple-choice questions

QUESTION 1

Consciousness is best defined as a

- A** state of wakefulness.
- B** focused condition.
- C** highly ordered state of thinking.
- D** state of awareness.

QUESTION 2

The term 'consciousness' is best described as

- A** a state focusing on our internal existence and activities.
- B** the awareness of external stimuli and of an individual's internal state.
- C** a condition distinguished by specific physiological processes.
- D** the ability of a person to respond to objects and events within their external environment.

States of consciousness

Multiple-choice questions

QUESTION 3

While attempting these questions, you are probably focusing your awareness on this book and ignoring what is going on around you. This attribute of normal waking consciousness is characteristic of

- A** selective attention.
- B** divided awareness.
- C** controlled processing.
- D** automatic processing.

QUESTION 4

Psychologists identify significant alterations in both the quality and pattern of mental functioning as

- A** cognitive enhancement.
- B** altered states of consciousness.
- C** an aspect of normal waking consciousness.
- D** a progression into a state of subconsciousness.

QUESTION 5

When _____, individuals can focus their concentration away from thoughts and feelings by repeating a word over and over in order to generate a sense of relaxation.

- A** under hypnosis
- B** using biofeedback
- C** meditating
- D** directing their daydreams

QUESTION 6

Stephanie is learning to drive and has to concentrate on how to coordinate the different actions involved in monitoring the road, steering the car, changing the gears and so on. As such, she cannot listen to the radio or hold a conversation with other people in the car. For Stephanie, driving would be considered

- A** a controlled process, because it involves higher levels of awareness, mental effort and focused attention.
- B** an automatic process, because it involves higher levels of awareness, mental effort and focused attention.
- C** a controlled process, because it does not interfere with the other task and can be performed with little conscious effort and minimal attention.
- D** an automatic process, because it does not interfere with the other task and can be performed with little conscious effort and minimal attention.

QUESTION 7

Amber is usually a very shy girl but, after several drinks at her friend's birthday party, she was dancing on top of the table and loudly singing out of tune. When her friends discussed her behaviour the next day, Amber could only vaguely remember doing some of the things described. It is likely that Amber displayed _____ due to the effects of the alcohol at the party.

- A her true self
- B sensory enhancement
- C drug-induced psychosis
- D an altered state of consciousness

QUESTION 8

Rodric was practising some meditation techniques involving a mantra and controlled breathing. Which of the following is he most likely to experience?

- A a distorted sense of time
- B a lowered pain threshold
- C improved clarity of thought
- D heightened control of his emotions.

QUESTION 9

Research by Dr Jackie Andrade of Sheffield University suggests that surgical patients may be able to pick up information despite being under the influence of a general anaesthetic. The study found that patients develop memories of conversations going on around them. On the basis of these findings, it appears that the patients in the study were

- A in a state of normal waking consciousness.
- B in a state not unlike a coma.
- C in an altered state of consciousness.
- D not given enough anaesthetic.

Short-answer questions

QUESTION 10

Why would you normally only perform one controlled process at a time?

QUESTION 11

Why is the process of meditation considered as creating an altered state of consciousness?

2 marks

QUESTION 12

In specific cultures, altered states of consciousness serve both a religious and a social function. In order to help Zen Buddhist monks achieve a higher meditative state, the senior monk will hit them around the shoulders and back while they are seated in a meditative posture. Similarly, Shaolin monks transcend Zen spiritual levels and enter altered states of consciousness by performing painful tasks such as carrying red-hot cauldrons with their bare hands. Explain, with reference to two different characteristics of altered states of consciousness, how achieving such a state would assist in pain control for the monks described above.

2 marks

Sleep

Multiple-choice questions

QUESTION 13

Newborn infants spend an approximate total of _____ sleeping each day.

- A 8 hours
- B 10–12 hours
- C 20 hours
- D 23 hours

QUESTION 14

Restorative theories of why people sleep emphasise

- A the importance of sleep as a means of keeping us out of harm's way.
- B processes that occur during REM sleep.
- C dreaming as essential for consolidating memories.
- D physiological repair and renewal.

QUESTION 15

According to the survival theory, the purpose of sleep is to enhance the continued existence of the organism by

- A** conserving energy so that the animal can escape from predators.
- B** invigorating the mind and body.
- C** conserving the amount of energy it requires.
- D** causing it to attract less attention to itself while asleep.

QUESTION 16

Andrew, a professional athlete, participated in a 25 kilometre ultra-marathon race. Andrew would have experienced significant increases in which stages of sleep during the first two nights after the race?

- A** NREM stages 1 and 2
- B** NREM stages 3 and 4
- C** REM sleep
- D** REM stages 1 and 2

Short-answer questions

QUESTION 17

What is the purpose of sleep according to the restorative theory?

QUESTION 18

Briefly outline the survival theory of sleep.

QUESTION 19

Based on your knowledge of sleep patterns, approximately what proportion of total time asleep would a newborn baby spend in REM sleep?

QUESTION 20

How would this contrast with the percentage of total time asleep an average adult would spend in REM sleep?

Physiological responses which indicate different states of consciousness

Multiple-choice questions

QUESTION 21

Sleep laboratories use an _____ to measure eye movements.

- A** electroangiogram
- B** electroencephalogram
- C** electromyograph
- D** electro-oculargram

QUESTION 22

Among other measures, a sleep researcher is monitoring changes in the electrical activity in the muscles of the sleeper. In order to do so, he or she would be using a device called an

- A** electrocardiograph.
- B** electroencephalograph.
- C** electromyograph.
- D** electro-oculargraph.

QUESTION 23

Body temperature can be used as a physiological measure to indicate different states of consciousness because

- A** it changes as a function of increased activity by the brain.
- B** individuals who are asleep show a decrease in their body temperature.
- C** there is a positive correlation between body temperature and an individual's level of awareness.
- D** it is one of the measures on the polygraph which measures changes in an individual's level of arousal.

QUESTION 24

How can the galvanic skin response be used to assess a change in an individual's state of consciousness?

- A** As the galvanic skin response is used to measure levels of arousal, it could also be used to measure changes in consciousness as altered states display varying levels of lowered arousal.
- B** As we descend into altered or lower states of consciousness, our reaction times to a current passed across the skin become longer.
- C** Typically, the deeper an individual goes into the altered states of consciousness, the more current is able to be conducted across the skin, as measured by the galvanic skin response.
- D** The galvanic skin response is only viable if the person is awake and so cannot be used to measure the transition into altered states of consciousness.

QUESTION 25

The different levels of sleep are distinguished by sleep researchers through the measurement of

- A** changes in body temperature.
- B** the number of dreams reported by the sleeper.
- C** the sleeper's pulse rate (with an ECG).
- D** brainwaves with the aid of an EEG.

QUESTION 26

While still able to maintain a waking state, stress management exercises and meditation can produce a relaxed state characterised by

- A** alpha waves.
- B** beta waves.
- C** gamma waves.
- D** delta waves.

QUESTION 27

During NREM stage 4 sleep, _____ brainwaves are present, as indicated by _____ amplitude and _____ frequency patterns.

- A** alpha; medium; high
- B** beta; low; high
- C** delta; high; low
- D** theta; low; medium

Short-answer questions

QUESTION 28

Describe the process whereby electrical activity of the brain is measured while asleep.

QUESTION 29

Sleep laboratories usually employ an electroencephalograph (EEG) to assist in identifying the stage of sleep being experienced by the subjects being observed. Referring to any three of the stages in the sleep cycle, describe how the EEG patterns would indicate which stage in the sleep cycle the subject was in at the time.

3 marks

Sleep deprivation

Multiple-choice questions

QUESTION 30

Mild sleep deprivation is most likely to result in an increase in

- A** attention.
- B** concentration.
- C** energy levels.
- D** irritability.

QUESTION 31

Studies indicate that lengthy periods of sleeping/dreaming deprivation cause negative results under which of the following conditions?

- A** REM sleep is interrupted.
- B** The person only gets 2–3 hours of sleep per night.
- C** The person is only allowed to sleep during the day for 3 hours.
- D** The person gets no more than 4 hours of sleep within each 24-hour period.

QUESTION 32

Lamond and Dawson's studies into sleep deprivation found that

- A** sleep deprivation had no effect on the participants' ability to perform coordination tasks.
- B** after sleep deprivation, participants found it difficult to perform simple tasks but were able to perform more complex tasks successfully.
- C** some of the participants suffered noticeable side-effects of the sleep deprivation for several weeks following the experiment.
- D** after sleep deprivation, participants found it difficult to perform complex tasks but were able to perform simpler tasks successfully.

Divisions of the nervous system

Multiple-choice questions

QUESTION 33

Every part of the body is connected to the brain by nerves in the

- A** autonomic nervous system.
- B** peripheral nervous system.
- C** spinal cord.
- D** sympathetic nervous system.

QUESTION 34

The two main divisions of the peripheral nervous system are the

- A** afferent nervous system and efferent nervous system.
- B** sympathetic nervous system and the parasympathetic nervous system.
- C** autonomic nervous system and the somatic nervous system.
- D** somatic nervous system and the motor nervous system.

QUESTION 35

The somatic nervous system

- A** is responsible for the regulation of respiration and heart rate.

- B** transmits sensory information and controls voluntary movements.
- C** has two main branches: the sympathetic and parasympathetic systems.
- D** is the umbrella term combining both the central and peripheral nervous systems.

QUESTION 36

The autonomic nervous system is divided into

- A** the brain and spinal cord.
- B** the sensory and motor nervous systems.
- C** the somatic and psychosomatic nervous systems.
- D** the sympathetic and parasympathetic nervous systems.

QUESTION 37

The 'fight-or-flight' response is a state of physiological arousal

- A** directed by the somatic nervous system.
- B** consciously controlled by the central nervous system.
- C** dominated by the sympathetic nervous system in response to a stressful situation.
- D** influenced by the parasympathetic nervous system in response to a stressful situation.

QUESTION 38

The section of the nervous system which relaxes the body after action and allows it to conserve energy is called the _____ nervous system.

- A** central
- B** somatic
- C** sympathetic
- D** parasympathetic

QUESTION 39

Stefan is normally a very withdrawn student in class, but has an ability to play the piano that was noticed by his music teacher. As a result, it was suggested that he play in the school's talent quest. Before going on stage, Stefan experienced an adrenaline 'rush' and felt his heart pounding in his chest. He also noticed other reactions, including a dry mouth, deeper breathing, and that he had broken out in a cold

sweat. These physiological responses would result from the action of the

- A** central nervous system.
- B** parasympathetic nervous system.
- C** somatic nervous system.
- D** sympathetic nervous system.

QUESTION 40

Before you enter your exams, you may experience any of several unpleasant changes in your body, such as changes in your breathing rate, sweating, needing to go the bathroom, 'butterflies' in your stomach, breaking out in 'goosebumps' and muscular tension. If you did, it would be your _____ nervous system preparing you to deal with a situation you may interpret as threatening in some way.

- A** somatic
- B** peripheral
- C** sympathetic
- D** parasympathetic

QUESTION 41

After finishing your psychology examination, you decide to calm down by doing some relaxation exercises that you have learned. These techniques should increase the response of the _____ nervous system and result in slower heart and respiration rates and less muscular tension.

- A** somatic
- B** peripheral
- C** sympathetic
- D** parasympathetic

QUESTION 42

Which of the following processes is controlled by the autonomic nervous system?

- A** automatic reflex actions, such as withdrawing when touching a hot iron
- B** blushing when embarrassed
- C** coordination of bodily movement when playing sport
- D** decoding the meaning of words

Short-answer questions

QUESTION 43

What is the defining characteristic of the peripheral nervous system?

QUESTION 44

The section of the nervous system which arouses the body and prepares it for action in response to a perceived threat is called the _____.

QUESTION 45

What comprises the central nervous system and what is its function?

2 marks

QUESTION 46

Describe the role of the sympathetic division of the autonomic nervous system.

2 marks

QUESTION 47

What is the function of the parasympathetic nervous system? What changes occur within the body as a result of its activity?

3 marks

The cerebral lobes and their functions

Multiple-choice questions

QUESTION 48

The _____ plays a major role in controlling emotions, organisation, voluntary motor movements and speaking.

- A** frontal lobe
- B** occipital lobe
- C** parietal cortex
- D** temporal lobe

QUESTION 49

The area located at the back of the frontal lobe that controls the voluntary muscles is known as

- A** Broca's area.
- B** the medulla oblongata.
- C** the motor cortex.
- D** the somatosensory cortex.

QUESTION 50

The frontal lobes of the cerebral cortex containing the region controlling the muscles involved in the production of speech is known as

- A** Broca's area.
- B** Wernicke's area.
- C** the temporal area.
- D** the auditory cortex.

QUESTION 51

The _____ is the part of the cerebral cortex which processes bodily sensations.

- A** medulla oblongata
- B** motor cortex
- C** somatosensory cortex
- D** temporal lobe

QUESTION 52

Where is the primary visual cortex located?

- A** behind the eyes in the frontal lobe
- B** the optical lobe
- C** the optic chiasm
- D** the occipital lobe

QUESTION 53

What area of the brain is responsible for processing information from our sense of hearing?

- A** primary auditory cortex
- B** olfactory bulb
- C** somatosensory area
- D** primary visual cortex

QUESTION 54

The motor area within the cerebral cortex

- A** contains proportionate amounts of cortical tissue for the different parts of the body.
- B** controls the movement of the leg and arm of the same side of the body.
- C** has more space dedicated to controlling the thumb than the leg.
- D** is dominant within the right hemisphere for most individuals.

QUESTION 55

If damage was to occur to Broca's area, the symptomatology you would expect would be a patient's inability to

- A** recognise and name visual stimuli.
- B** comprehend spoken language.
- C** feel pain.
- D** produce clear and fluent speech.

QUESTION 56

People who experience Wernicke's aphasia have had damage to their

- A** temporal lobe.
- B** somatosensory area.
- C** occipital lobe.
- D** frontal lobe.

QUESTION 57

The amount of the somatosensory area devoted to a particular region of the body is positively correlated with the

- A** size of the body parts.
- B** ability for fine motor control.
- C** sensitivity of the body region.
- D** importance of each area of the body.

QUESTION 58

People who experience expressive aphasia have had damage to their

- A** frontal lobe.
- B** occipital lobe.
- C** somatosensory area.
- D** temporal lobe.

QUESTION 59

After having a blood vessel rupture in her brain, Phoebe experiences difficulty in understanding others. Also, while she is able to speak clearly, many of her sentences do not make sense. Her symptoms would indicate damage to

- A** the auditory cortex.
- B** Broca's area.
- C** the visual cortex.
- D** Wernicke's area.

Short-answer questions**QUESTION 60**

- i** Describe the location of the occipital lobes of the cerebral cortex.
- ii** What is the main function of the occipital lobes?

QUESTION 61

Describe three functions carried out by the frontal lobes.

3 marks**QUESTION 62**

Where is Broca's area located? Why is it important?

2 marks**QUESTION 63**

Why are an individual's fingers and hands more dexterous than their toes and feet?

3 marks**Hemispheric specialisation****Multiple-choice questions****QUESTION 64**

The two language areas of the brain, for most individuals, are located in the

- A** left cerebral hemisphere.
- B** midbrain.
- C** right cerebral hemisphere.
- D** thalamus.

QUESTION 65

For a normal person, which of the following statements are cognitive and behavioural functions of the right cerebral hemisphere?

Statement 1: visuo-spatial tasks such as drawing, and manipulation of objects.

Statement 2: recognition of faces and patterns.

Statement 3: control over the left-hand side of the body.

Statement 4: non-verbal ideation.

Statement 5: holistic thought patterns.

- A** Statements 1, 2 and 4 are correct.
- B** Statements 4 and 5 are incorrect.
- C** Statement 3 is correct.
- D** All of the functions listed are correct.

QUESTION 66

Studies of patients who have undergone split-brain surgery have taught us a great deal about

- A** cortical involvement in the expression of emotion.
- B** the asymmetry of the higher functions in the cortex.
- C** topographic organisation within the somatosensory cortex.
- D** cortical coordination of movement.

QUESTION 67

A patient who has suffered brain damage to the left hemisphere is likely to experience diminished capacity for

- A** emotional responses.
- B** musical ability.
- C** naming stimuli.
- D** recognising faces.

QUESTION 68

Successfully sketching a portrait, negotiating a maze or sculpting pottery would involve the

- A** frontal lobe.
- B** right hemisphere.
- C** occipital lobe.
- D** left hemisphere.

QUESTION 69

In an experiment with a split-brain patient, a picture of a cat is briefly flashed in their left visual field followed by a picture of a mouse being briefly flashed in their right visual field. The patient would be able to use their _____ hand to indicate that they saw a _____.

- A left; rat
- B right; cat
- C left; mouse
- D right; mouse

Short-answer question

QUESTION 70

David is a talented art teacher, but is not particularly fond of the sciences. He has been described as a 'right-brain' thinker.

- i Would this be an accurate statement to make?
- ii Give reasons to back up your answer.

1 + 2 = 3 marks

The reticular activating system and thalamus

Multiple-choice questions

QUESTION 71

Sleep and wakefulness is controlled by the

- A forebrain.
- B reticular activating system.
- C pons.
- D cerebellum.

QUESTION 72

The part of the brain located directly above the brainstem that serves as a major sensory relay station is the

- A thalamus.
- B pineal gland.
- C cerebellum.
- D corpus callosum.

Short-answer question

QUESTION 73

The 'cocktail party' phenomenon, when you hear someone use your name in a crowded room despite being in a separate conversation with someone else, is primarily due to the action of the _____.

Brain research techniques

Multiple-choice questions

QUESTION 74

Which of the following procedures have been used to research how the brain works?

- A case studies of brain-damaged patients
- B electrical stimulation of cortical areas
- C magnetic resonance imaging
- D all of the above

QUESTION 75

_____ provides clear images of the brain's internal structures.

- A Computerised tomography scans
- B Electroencephalographs (EEGs)
- C Lesioning
- D Positron emission tomography

QUESTION 76

In order to confirm a diagnosis of epilepsy, a neurologist needs to monitor the activity in the patient's brain over a prolonged period. The most practical way to obtain this information would be to use

- A a functional magnetic resonance imaging scan (fMRI scan).
- B a computerised tomography scan (CT scan).
- C positron emission tomography (PET).
- D an electroencephalograph (EEG).

Short-answer questions

QUESTION 77

How can the electroencephalograph (EEG) be used to study the brain?

2 marks

QUESTION 78

Both positron emission tomography (PET scans) and functional magnetic resonance imaging (fMRI) are used to study the brain.

- i What characteristic do these methods have in common?
- ii In what ways do these methods differ from one another?

3 marks

Practice exam questions: Memory

Instructions

- Each multiple-choice question is worth 1 mark.
- Short-answer questions are worth 1 mark unless otherwise indicated.

The nervous system and memory

Multiple-choice questions

QUESTION 1

Which part of the brain is crucial for memory formation and is one of the structures damaged in Alzheimer's disease?

- A** amygdala
- B** thalamus
- C** hippocampus
- D** cingulate cortex

QUESTION 2

Consolidation refers to the

- A** time necessary for stable short-term memory to form.
- B** period of time necessary for a lasting long-term memory to develop.
- C** process of forming relationships between objects or events for immersion into the semantic network.
- D** process within which memory storage can be sped up through the application of electric shock.

QUESTION 3

Electro-convulsive shock treatment has the side effect of causing memory loss because it disrupts

- A** consolidation.
- B** encoding.
- C** the semantic network.
- D** retrieval.

QUESTION 4

Some recent models of memory have included an intermediate stage memory requiring a period of time for information to enter long-term memory. If we were to try to fit this concept within Atkinson and Schiffrin's model (1968), it would probably correspond to the period of

- A** rehearsal in short-term memory.
- B** semantic encoding within short-term memory.
- C** consolidation.
- D** schematisation.

QUESTION 5

The hippocampus is not

- A** closely connected with the sense of smell, helping to process signals from the olfactory bulb.
- B** central to recalling spatial relationships, enabling us to navigate our way in familiar settings.
- C** clearly implicated in retrograde amnesia, but is involved in anterograde amnesia.
- D** the provider of a cross-referencing system that links different aspects of a memory from around the brain.

QUESTION 6

While cutting a tree limb, Ivan fell off his ladder and hit his head. When asked later about what had happened, he could not recall any of the events immediately preceding the accident. His condition was probably caused by

- A** anterograde amnesia.
- B** lack of consolidation.
- C** retrograde interference.
- D** the absence of state-dependent cues.

Short-answer question

QUESTION 7

Why are invertebrates used as models for studies into memory, such as Kandel's research with the aplysia?

Memory decline over the lifespan

Multiple-choice questions

QUESTION 8

Regarding memory decline over the lifespan, studies indicate that

- A** loss of memory capabilities is an automatic consequence of ageing.
- B** procedural and semantic memories appear to be less vulnerable to ageing than episodic memories.
- C** episodic memories are unaffected, but semantic memory deteriorates with age.
- D** recognition is affected, but ability to recall newly learned information remains.

QUESTION 9

Which of the following statements accurately describes changes in memory ability over a person's lifespan?

- A** Tests show a significant decrease in an individual's ability to recall episodic memories, but much less deterioration for well-learned semantic memories.
- B** There is a gradual decline in ability to remember semantic memories but not episodic memories.
- C** Performance on semantic and episodic memory tests steadily deteriorates after the age of 40 years.
- D** There is a significant and progressive decline in ability for tasks involving recognition but little change in an individual's ability to recall autobiographical events.

Short-answer question

QUESTION 10

Memory is said to decline with age. Outline two aspects of memory that are affected by ageing.

2 marks

Amnesia, dementia and Alzheimer's disease

Multiple-choice questions

QUESTION 11

Organic causes of forgetting are due to

- A** brain damage.
- B** decay.
- C** retrieval failure.
- D** physiological forgetting.

QUESTION 12

The most common form of dementia is

- A** Alzheimer's disease.
- B** vascular dementia.
- C** dementia with Lewy bodies.
- D** fronto-temporal dementia (including Pick's disease).

QUESTION 13

In the early stages of Alzheimer's, a common symptom is usually

- A** dizziness.
- B** forgetfulness.
- C** loss of appetite.
- D** loss of physical coordination.

QUESTION 14

Which of the following statements about Alzheimer's disease is correct?

- A** Alzheimer's disease is a normal part of ageing.
- B** Scientists can pinpoint the exact cause of Alzheimer's disease.
- C** Alzheimer's disease is the most common form of dementia among older people.
- D** When researchers examine the brains of people who have died of Alzheimer's, they find nothing unusual.

QUESTION 15

The most important known risk factor for Alzheimer's disease is

- A** age.
- B** arthritis.
- C** depression.
- D** family history of the disease.

QUESTION 16

Korsakoff's syndrome is a disorder shown by chronic alcoholics whereby sufferers are unable to form new memories, often forgetting what had happened even a few minutes previously. This disorder is an example of the

- A** impermanence of episodic memories.
- B** interference theory of forgetting.
- C** decay theory of forgetting.
- D** organic bases of forgetting.

QUESTION 17

The symptoms of Korsakoff's syndrome (described in Question 16) are consistent with _____.

- A** proactive interference.
- B** retrograde amnesia.
- C** anterograde amnesia.
- D** retroactive interference.

QUESTION 18

While rock climbing, Ed slipped and hit his head against the cliff face. After the accident, Ed could not remember any of the events leading up to the accident. His condition may be explained by

- A** retroactive interference.
- B** retrograde amnesia.
- C** memory decay.
- D** anterograde amnesia.

Short-answer questions**QUESTION 19**

What is meant by the term 'organic forms of forgetting'?

QUESTION 20

Identify two physiological effects of Alzheimer's disease on the brain.

2 marks

Models for explaining human memory

Multiple-choice question**QUESTION 21**

According to the information-processing model, human memory is most analogous to

- A** a set of encyclopaedias.
- B** a computer.
- C** a library.
- D** a filing cabinet.

Levels of processing

Multiple-choice questions**QUESTION 22**

Which one of the following is not one of the three basic processes of memory?

- A** attention
- B** encoding
- C** retention
- D** retrieval

QUESTION 23

_____ is when incoming information is converted into a usable form, so that it can go into memory.

- A** Transduction
- B** Storage
- C** Organisation
- D** Encoding

QUESTION 24

Emma had to remember a list of objects such as 'light', 'mug' and 'locomotive'. When she was later given a recall test, the words that she recalled were 'lamp', 'cup' and 'train'. This happened because Emma encoded the words

- A** impulsively.
- B** visually.
- C** structurally.
- D** phonemically.

QUESTION 25 🌟🌟🌟

How could you improve your depth of processing in order to encode information?

- A** Look at the physical characteristics of each item.
- B** Simply repeat the items on the list over and over.
- C** Go through the items on the list and think about the meaning of each one.
- D** Study at the same time and place in order to increase the probability of context-dependent memory.

Multi-store model of memory

Multiple-choice questions

QUESTION 26 🌟

Which of the following is the correct sequence of storage within the modal model of memory?

- A** sensory, long-term, working memory
- B** iconic, short-term, semantic, long-term memory
- C** sensory, short-term, long-term memory
- D** short-term, working, long-term memory

QUESTION 27 🌟

Which of the following is not included within the modal model of memory?

- A** long-term memory
- B** sensory memory
- C** short-term memory
- D** tactile memory

QUESTION 28 🌟

The first step in placing information into storage is

- A** immediate memory.
- B** sensory memory.
- C** short-term memory.
- D** rehearsal.

QUESTION 29 🌟

The literal memory of visual sensory information is held in

- A** echoic memory.
- B** episodic memory.
- C** iconic memory.
- D** semantic memory.

QUESTION 30 🌟

The duration of iconic memory is about _____ second(s).

- A** 0.3–0.4
- B** 3–4
- C** 18–20
- D** 60

QUESTION 31 🌟

Auditory information is stored in

- A** echoic memory.
- B** episodic memory.
- C** iconic memory.
- D** semantic memory.

QUESTION 32 🌟

Echoic memory lasts for about _____ second(s).

- A** 0.3–0.4
- B** 3–4
- C** 18–20
- D** 60

QUESTION 33 🌟

Short-term memory

- A** has an unlimited capacity.
- B** temporarily stores information while it is being processed.
- C** can process information for extended periods of time.
- D** is not affected by interference or interruption.

QUESTION 34

While recitation will help keep information in short-term memory for longer periods of time, it does not help to transfer information into long-term memory. In order to get information into long-term memory, we need to engage in

- A** elaborative rehearsal.
- B** chunking.
- C** maintenance rehearsal.
- D** procedural encoding.

QUESTION 35

Which of the following is not true of long-term memory?

- A** Its capacity is theoretically unlimited.
- B** It can hold information for an indefinite length of time.
- C** It includes both autobiographical and semantic memories.
- D** It has about seven slots or chunks for information storage.

QUESTION 36

Long-term memory can be divided into

- A** declarative and mnemonic memory.
- B** procedural, semantic and episodic memory.
- C** semantic memory and phonemic memory.
- D** pro-active and retro-active memory.

QUESTION 37

The memory for processes and skills that enable us to carry out a course of action is stored in

- A** declarative memory.
- B** episodic memory.
- C** procedural memory.
- D** semantic memory.

QUESTION 38

Information is organised within the long-term memory such that it is stored

- A** in hierarchical systems with meaningful links between key concepts.
- B** chronologically according to the order in which the information was learned.

C in separate compartments according to the way the information was first encoded.

D as engrams (or memory traces) formed by interconnections between distinct networks of neurons within the brain.

QUESTION 39

The shape of a serial position curve typically resembles

- A** an upside-down U-shape.
- B** a normal, bell-shaped distribution.
- C** a U-shape.
- D** a linear progression with a negative gradient.

QUESTION 40

The primacy effect is defined as

- A** better memory of items from the first few serial positions in a list.
- B** superior recollection of items from middle serial positions in a list.
- C** heightened ability to recall items from the last few serial positions.
- D** better memory of the first few and last few items within a list.

QUESTION 41

Sensory memory

- A** is the first stage of human memory.
- B** contains transient information detected by our senses.
- C** preserves information in a literal form for a brief period of time.
- D** is all of the above.

QUESTION 42

The memory strategy involving the organisation of distinct pieces of information into one related, meaningful group is referred to as

- A** SQ3R.
- B** organisation.
- C** chunking.
- D** elaborative rehearsal.

QUESTION 43

The process of elaborative rehearsal does not involve

- A** adding information to ideas and concepts.
- B** restating material in your own words.
- C** analysing component parts of an idea.
- D** none of the above.

QUESTION 44

Maggie still knows how to ride a bike even though she has not ridden one for several years. Which type of memory is involved here?

- A** declarative memory
- B** episodic memory
- C** procedural memory
- D** semantic memory

QUESTION 45

Which of the following statements best describes how information is organised within the long-term memory?

- A** Long-term memories are stored and organised into a hierarchical arrangement of categories and sub-categories. Interconnections are also formed such that nodes are formed between key concepts.
- B** Long-term memories are stored and organised into hierarchical networks based on linkages between common properties of items. The longer the link between two concepts, the more closely they are related to one another.
- C** Long-term memories are arranged into hierarchical networks based on the chronological order that items were learned. Retrieval therefore becomes a sequential process in order to access information.
- D** Long-term memories are stored and organised into a hierarchical arrangement of categories and sub-categories. Interconnections are also formed such that meaningful associations are formed between key concepts.

QUESTION 46

Which part of a list is most difficult to remember?

- A** words at the beginning of the list
- B** words in the middle of the list

C words at the end of the list

D unusual or novel words

QUESTION 47

Sensory memory

- A** is a temporary store of very limited capacity.
- B** is the initial stage of memory where external stimuli are registered by the sense organs and stored until processed into our long-term memory.
- C** saves our sensory impressions so that a slight overlap occurs, enabling us to perceive our environment in an uninterrupted fashion.
- D** is capable of storing visual and auditory information, but not touch.

QUESTION 48

If you meet someone and use her correct name immediately, but cannot remember it a half-hour later, the name was probably held in your

- A** episodic memory.
- B** long-term memory.
- C** sensory register.
- D** short-term memory.

QUESTION 49

If rehearsal is not present, information generally remains in short-term memory for

- A** approximately 3–4 seconds.
- B** a few minutes.
- C** about 18–20 seconds.
- D** 15–20 minutes.

QUESTION 50

To what was Miller referring when he entitled his research article 'The Magic Number 7 plus or minus 2'?

- A** The number of seconds that information can be stored without rehearsal.
- B** The storage capacity of short-term memory.
- C** The amount of information that can be retrieved from long-term memory at one time.
- D** The number of modalities that can be processed within short-term memory at any given time.

QUESTION 51☆☆☆

Winners at competitions involving the memorisation of large amounts of information, such as the order of each card in a shuffled standard playing deck, often attribute their success to

- A** replacing memory based on meaning with memory that utilises only imagery.
- B** state-dependent learning.
- C** learning techniques for organising or 'chunking' information.
- D** well-developed selective attention.

QUESTION 52☆☆☆

Harry is looking for the phone number to the hardware store that has just opened in his area, but it is not yet in the phone book. He calls information for the number but doesn't have a pen or paper to write it down. Instead, he tries to remember the phone number by saying it over and over. What method of memory is Harry employing?

- A** digit-span memory
- B** elaborative rehearsal
- C** maintenance rehearsal
- D** semantic encoding

QUESTION 53☆☆☆

A brain-injured patient who can still drive a manual car or serve a tennis ball, but is unable to recall or relearn the names of the medical staff currently treating him, is superior in

- A** declarative memory.
- B** episodic memory.
- C** procedural memory.
- D** semantic memory.

QUESTION 54☆☆☆

According to Glanzer and Cunitz (1966), what would happen to the serial position effect if recall of the list was delayed by 30 seconds?

- A** Recall of the items at the beginning of the list would be impaired.
- B** Recall of the items at the end of the list would be impaired.
- C** Recall of the items in the middle of the list would be enhanced.

- D** There would be no significant change in the pattern displayed by the graph.

Short-answer questions**QUESTION 55**☆

What is meant by 'sensory memory'?

QUESTION 56☆

_____ uses the conscious recitation of information so that it can be retained in STM.

QUESTION 57☆

_____ stores autobiographical information of personal events associated with time and place.

QUESTION 58☆☆

Distinguish between the various types of long-term memory.

4 marks

QUESTION 59☆☆☆

Why is it beneficial for short-term memory to have a small storage capacity?

QUESTION 60☆☆☆

Name and describe the form of rehearsal that has little, if any, effect on long-term memory formation. Provide one reason why this form of rehearsal is not effective for transferring information into LTM.

3 marks

QUESTION 61☆☆☆

Why is procedural memory more resistant to forgetting than other forms of long-term memory?

QUESTION 62☆☆☆

How is information organised within the long-term memory?

3 marks

QUESTION 63☆☆☆

How do psychologists explain the pattern displayed between the primacy and recency effects within the serial position effect?

QUESTION 64

Glanzer and Cunitz (1966) performed experiments which delayed recall of a list by 30 seconds. What effect did this have on participants' ability to recall the list?

Working memory

Multiple-choice questions**QUESTION 65**

Working memory is associated with

- A** sensory memory.
- B** short-term memory.
- C** immediate memory.
- D** intermediate memory.

QUESTION 66

According to Baddeley's (1986) theory of working memory, the general function of the visuo-spatial sketchpad is to

- A** store and manipulate auditory information.
- B** keep visual information in the sensory register.
- C** transfer information into long term memory.
- D** store and manipulate visual and spatial information.

QUESTION 67

According to the Working Memory Model, the _____ determines which information will be rehearsed.

- A** articulatory (phonological) loop
- B** episodic buffer
- C** central executive
- D** visuo-spatial sketchpad

QUESTION 68

According to Baddeley, what refreshes information within the phonological loop in order for us to hold onto the information for a longer period?

- A** selective attention
- B** coordination with the visuo-spatial sketchpad
- C** retrieval from the semantic network
- D** sub-vocal repetition

QUESTION 69

Imagine that you are given a list of five unrelated letters to remember. Immediately after hearing the letters, you are asked to count backwards in three's from 694. Under these circumstances, how long will the memory of the 5 unrelated letters last in working memory?

- A** less than a second
- B** a few seconds
- C** approximately 20 seconds
- D** the letters will not enter short-term memory

Short-answer questions**QUESTION 70**

Baddeley proposed a system for rehearsing mental imagery in the mind's eye called the _____.

QUESTION 71

In Baddeley's model, _____ controls awareness of information in working memory.

QUESTION 72

According to Baddeley, _____ rehearses verbal information.

Theories of forgetting

Multiple-choice questions**QUESTION 73**

Theories about the causes of forgetting focus on

- A** decay.
- B** interference.
- C** the lack of appropriate retrieval cues.
- D** all of the above.

QUESTION 74

When prior learning causes forgetting of recently learned material, _____ is said to have occurred.

- A** proactive interference
- B** retrograde amnesia
- C** retroactive interference
- D** repression

QUESTION 75

When new information interferes with an individual's ability to remember previously learned information, this is referred to as

- A** anterograde interference.
- B** retrograde amnesia.
- C** retroactive interference.
- D** proactive interference.

QUESTION 76

People forget information because other information gets in the way and blocks its retrieval due to

- A** semantic overload.
- B** interference.
- C** schematic competition.
- D** retrieval confusion.

QUESTION 77

A criticism of the decay theory of forgetting is that

- A** other factors may make memories difficult to retrieve.
- B** individuals may retain vivid memories of autobiographical events that occurred many years before.
- C** if recall is not immediate, this does not mean that the memory has faded as it could be remembered at a later time.
- D** all of the above.

QUESTION 78

While studying *Macbeth*, Jesse's teacher asked him to read a paragraph out loud to the class. He spoke the words clearly, but then found that he could not remember what the paragraph was about because he was not really paying attention to the meaning of the words. Jesse had experienced _____ due to _____.

- A** repression; the stress of reading to his peers
- B** retrieval failure; memory decay
- C** pseudoforgetting; encoding failure
- D** the serial position effect; retrieval breakdown

QUESTION 79

One of Belinda's teachers, Miss Jones, recently married and changed her name to Mrs Johnson. For the first few weeks, Belinda and other students in the class often referred to her as Miss Jones and found it difficult to recall her new name. This can be explained as due to

- A** proactive interference.
- B** retroactive interference.
- C** retrograde amnesia.
- D** encoding failure.

QUESTION 80

Virginia has gaps in her childhood memories corresponding to a period when she was subjected to various forms of abuse. The process of _____ most likely accounts for Virginia's memory loss.

- A** retroactive inhibition
- B** decay
- C** context-dependent forgetting
- D** repression

Short-answer questions**QUESTION 81**

What is involved in retrieval failure?

QUESTION 82

What is involved in memory loss due to displacement?

2 marks

QUESTION 83

How does the information processing approach explain the interference theory of forgetting?

2 marks

QUESTION 84

Suggest how a student preparing for their end-of-year psychology examination would prevent retroactive and proactive interference from causing them to forget the information that they have learned.

3 marks

The forgetting curve

Multiple-choice questions

QUESTION 85

A representation of the speed with which information is lost from long-term memory is referred to as the

- A forgetting curve.
- B mnemonic graph.
- C decay diagram.
- D arc of deterioration.

QUESTION 86

Why did Ebbinghaus use nonsense syllables for his research?

- A to eliminate any language problems for non-German subjects
- B to reduce the effects of prior experience
- C to help increase subject interest
- D to increase task difficulty

The relative sensitivity of measures of retention

Multiple-choice questions

QUESTION 87

Information is remembered without the aid of explicit cues or hints in

- A recall.
- B relearning.
- C recognition.
- D redintegration.

QUESTION 88

A person is provided with cues among a set of alternatives within which measure of retention?

- A relearning
- B cued recall
- C serial recall
- D recognition

QUESTION 89

Which of the following measures would provide the greatest evidence of retention, years after a student has completed a course of study?

- A recall
- B relearning
- C recognition
- D rehearsal

QUESTION 90

When a student is required to recite a speech verbatim, which of the following methods of measuring memory is being used?

- A serial position effect
- B redintegration
- C relearning
- D recall

QUESTION 91

Research would suggest that people perform better in tests that utilise _____ rather than _____.

- A recall; relearning
- B relearning; recognition
- C recognition; recall
- D recall; recognition

QUESTION 92

Your history teacher gives you a list of the initials of Australian prime ministers and asks you to fill in their names. This type of quiz utilises

- A cued recall.
- B free recall.
- C recognition.
- D serial recall.

QUESTION 93

A crime victim is trying to identify the perpetrator for the police by looking at a book of 'mug shots'. The witness is relying on the use of _____ to identify the criminal.

- A redintegration
- B recognition
- C context cues
- D recall

Memory enhancement

Multiple-choice questions

QUESTION 94

A mental strategy that acts as a technique or aid to improving memory is called a

- A retrieval cue.
- B mnemonic.
- C memory trigger.
- D recovery device.

QUESTION 95

Amanda read two paragraphs: one that was complete nonsense and another that was highly meaningful. When later tested on the material, we would expect her to do

- A better on the nonsense paragraph, because of retroactive interference.
- B better on the meaningful paragraph.
- C better on the nonsense paragraph, because of the primacy effect.
- D equally well on the two paragraphs, assuming she paid equal attention to them both.

QUESTION 96

The words SCUBA and LASER are examples of

- A acrostics.
- B mnemonics that apply imagery to enhance memory.
- C acronyms.
- D peg words.

QUESTION 97

Two psychology students were trying to remember various terms within the sequence of memory formation for a mid-term topic test. The students used different memory strategies. Student A put up a series of posters along the path he took from his bedroom to the kitchen in his house and tried to memorise each as he went about his daily routine. Student B made up a series of related sentences and used the concepts within these sentences. What are the names of the two memory techniques used by the students?

- A Student A – acrostics; Student B – narrative chaining.
- B Student A – acronyms; Student B – acrostics.
- C Student A – method of loci; Student B – acrostics.
- D Student A – method of loci; Student B – narrative chaining.

Short-answer questions

QUESTION 98

_____ tend to help an individual to remember something when they are in the same physical or mental condition as during the original learning or experience.

QUESTION 99

A technique used to enhance an individual's memory is known as a _____.

QUESTION 100

_____ is a way of remembering a list of unrelated items by creating a story (or song) that links the concepts together in some ordered manner.

QUESTION 101

How can the peg-word method be used to enhance memory?

3 marks

Eyewitness testimony

Multiple-choice questions

QUESTION 102

Based on her findings from studies into eyewitness testimony, Loftus developed the

- A modal model of memory.
- B reconstructive memory hypothesis.
- C social learning theory.
- D misinformation detection index.

QUESTION 103

Memory

- A** can be easily distorted.
- B** is a hypothetical construct.
- C** may be altered by leading questions.
- D** is all of the above.

Short-answer questions

QUESTION 104

Detective Nabb is investigating a bank robbery. Hoping to help witnesses remember the details of the incident, he takes them back to the bank where the robbery occurred. Explain why returning to the scene of the crime may assist the witnesses in their recall.

2 marks

QUESTION 105

In the study by Loftus and Palmer (1974) into eyewitness testimony, the participants were shown film clips of car accidents. Suggest two criticisms of the ecological validity of this study.

2 marks

QUESTION 106

Why would ecological validity be a concern for an experiment of the type described in Question 105?

Practice exam questions: Research methods

Instructions

- Each multiple-choice question is worth 1 mark.
- Short-answer questions are worth 1 mark unless otherwise indicated.

Scientific method

Multiple-choice question

QUESTION 1

The effects of brain injury on cognitive functioning would usually be investigated through a

- A** case study.
- B** controlled experiment.
- C** single-blind study.
- D** survey.

Short-answer question

QUESTION 2

What are the limitations of employing formal experiments in psychology?

Operational hypotheses

Multiple-choice questions

QUESTION 3

An operational hypothesis

- A** states precisely what the outcome of a research study will be.
- B** is merely an educated guess as to what will happen within the context of the current experiment.
- C** is a prediction describing how the variables will be put into practice within the experiment.
- D** anticipates that there will be no significant difference between the variables under study.

QUESTION 4

An experiment is performed to test the effects of sleep deprivation on reaction time. In this experiment, the independent variable is the

- A** measures of reaction time.
- B** number of hours that subjects go without sleep.
- C** number of subjects deprived of sleep in the experimental group.
- D** correlation between hours of sleep and reported perceptions of fatigue.

QUESTION 5

A researcher hypothesised that frustration causes aggression. Which of the following are operational definitions of the concepts of punishment and aggression?

- A** high temperature and humidity during peak hour traffic; the number of reported incidents of road rage
- B** incidents involving frustration; observations of aggression
- C** theories about frustration; aggression theories
- D** it may be impossible to test such a hypothesis as it cannot be falsifiable (defined in such a manner that it can be confirmed)

QUESTION 6

Within an ERA, a psychology class investigated the relative effectiveness of different measures of retrieval. The students were asked to memorise a list of 15 nonsense syllables and were then either given a blank piece of paper to write down what syllables they could bring to mind (group 1) or given a list of 45 nonsense syllables and asked to circle which ones were on the original list (group 2). The teacher then recorded the number of syllables correctly remembered by the students.

The study was designed to test the statement that: 'The group who were asked to circle choices from a list would correctly remember more nonsense syllables than those who had to reproduce the syllables on a blank sheet of paper.' This statement is an example of

- A** a theory.
- B** a null hypothesis.
- C** a research hypothesis.
- D** an operational hypothesis.

Short-answer questions

QUESTION 7

Explain the difference between independent variables and dependent variables.

2 marks

QUESTION 8

A study is exploring whether the ability to recall newly learned material declines with age. Identify the independent and dependent variables involved in this study.

2 marks

QUESTION 9

How could a psychologist operationalise the mental process of memory?

2 marks

Participant selection and allocation

Multiple-choice questions

QUESTION 10

A major requirement for a sample to be used in psychological research is that it be

- A** large.
- B** significant.
- C** convenient.
- D** representative.

QUESTION 11

In order to gain a sample such that gender and age groups are represented in proportion to their numbers within the population, a researcher would need to use

- A** a random sample.
- B** a stratified sample.
- C** an independent groups design.
- D** a matched-subjects design.

QUESTION 12

When everyone in the target population has an equal likelihood of being selected to take part in a survey, the researcher has selected a

- A** stratified sample.
- B** random sample.
- C** non-representative sample.
- D** biased sample.

QUESTION 13

In an experiment, the control group

- A** balances the overall sample to eliminate all confounding variables.
- B** ensures that statistical analysis can confirm the hypothesis.
- C** is exposed to the independent variable such that there is no chance of any interference from the experimenter.
- D** provides a basis for comparison against which the behaviour of the experimental group can be assessed.

QUESTION 14

Which of the following best describes a stratified sample?

- A** a sample of people who are selected to proportionally match for certain characteristics within the population
- B** a sample where all members of a population have an equal chance of being selected
- C** a sample that is made up of people from different cultures
- D** a sample that is easily separated into both an experimental and a control group

QUESTION 15

In order to explore the effects of having an alcohol induced altered state of consciousness, an experiment was devised using two groups. The first group performed a series of tasks when completely sober, while the second group performed the tasks after consuming alcohol to bring their BAC level up to at least 0.05%. The latter subject group in this case was the

- A** dependent group.
- B** control group.

- C independent group.
- D experimental group.

QUESTION 16

Research participants are said to be randomly assigned when

- A they each have an equal chance of being chosen from the population of interest to the researcher.
- B they are assigned to experimental and control groups from a sample which is representative of the larger population.
- C they each have an equal chance of being assigned to either the experimental or control group.
- D they do not know whether they are in the experimental or control group.

QUESTION 17

In a study into the effects of caffeine on performance, the control group should be given

- A a high dosage of caffeine.
- B one-half the dosage given the experimental group.
- C a standardised test before and after drinking caffeinated beverages.
- D no caffeine at all.

QUESTION 18

In order to explore the effect of interference on memory, an experiment was devised using two groups. The first group memorised a series of words, while the second group memorised the same list in addition to two other different lists of similar words. In this case, the latter group was the

- A control group.
- B dependent group.
- C experimental group.
- D independent group.

Short-answer question

QUESTION 19

A psychology teacher wants to perform an ERA within her school based on Harrison's study on the application of observational learning in cross-cultural training to see if it would improve the understanding of different migrant groups. As her school has a broad multicultural population with different numbers of students within each ethnic group, what method would she have to apply in order to control for the subject variable of cultural background and ethnicity? Briefly explain what she would need to do.

2 marks

Extraneous variables

Multiple-choice questions

QUESTION 20

In an experiment, a variable that causes a change in the dependent variable and therefore affect the results of the experiment in an unwanted way is referred to as

- A a controlled variable.
- B a nuisance variable.
- C an independent variable.
- D a confounding variable.

QUESTION 21

In a repeated measures design,

- A different participants with similar characteristics are split into two groups, then each is exposed to only one of the experimental conditions.
- B all of the research participants are exposed to both experimental conditions.
- C participants have to perform an experiment again because of problems when data was collected the first time.
- D different research participants are used in both experimental conditions.

QUESTION 22

You want to test consumers' reactions to a new artificial sweetener and so you give them coffee with two different kinds of sweetener. Although you know which sweetener is which, you don't let the consumers know which sweetener they are getting. This type of research is known as a

- A** double-blind experiment.
- B** single-blind experiment.
- C** placebo study.
- D** market research analytical study.

QUESTION 23

An experimenter effect is said to have occurred if

- A** statistical analysis shows that the experimenter's hypothesis is not supported.
- B** there are no extraneous variables.
- C** the experimenter's characteristics or expectations influence the results.
- D** statistical analysis shows that the experimenter's hypothesis is supported.

QUESTION 24

In order to investigate the effectiveness of a particular study method on his students' performance, Mr Black trials two different methods, each with a different group of students. Mr Black does not tell his students as to which method he is evaluating. The procedure Mr Black is using is described as

- A** a single-blind.
- B** a double-blind.
- C** representative sampling.
- D** a self-fulfilling prophecy.

QUESTION 25

Researchers wanted to investigate the claims made by a company who were marketing a particular type of herbal medicine that was claimed to be a guaranteed cure for all types of insomnia and restless sleep. After advertising for volunteers who were experiencing sleep difficulties, a random sample was drawn from this group such that those chosen had the same proportions of age and gender as the general population. Subjects were then paired together on the basis of these characteristics so that

the group could be split into two equal groups which would keep these same proportions as the population. A research assistant then gave the herbal remedy to the first group, while giving the second group a cup of ordinary black tea. The sleep patterns were monitored for two weeks through self-reporting methods via a sleep diary. After the researchers had finished analysing the data, the assistant informed them as to which group had taken the herbal mixture.

The researchers in this case have employed

- A** a dependent-groups design.
- B** an independent-groups design.
- C** a repeated-measures design.
- D** a matched-participants design.

QUESTION 26

In a study into pain control, injections of saline solution were shown to be quite effective for relieving pain. This is an example of

- A** a double-blind effect.
- B** a placebo effect.
- C** physiological blocking.
- D** the experimenter effect.

QUESTION 27

Fifty male volunteers who reported suffering from hypertension due to job pressures from their middle-management positions agreed to participate in a study to measure whether meditation was an effective means of lowering stress levels. Their results were to be compared with a control group of fifty other men who were in comparable middle-management roles and who did not receive training in meditation. For both groups, autonomic levels, including pulse rate, blood pressure and GSR, were monitored for the duration of the study, and then compared. The researchers in this case have employed

- A** a matched-participants design.
- B** a repeated-measures design.
- C** a single-blind procedure.
- D** an independent-groups design.

QUESTION 28☆☆

Researchers wish to investigate the effect of caffeine levels on sleep patterns. In order to do so, they obtain a random sample of adults, controlling for age and gender proportions within the general population. These participants are then split into three groups, keeping these same proportions, and made to undergo each of the three experimental conditions. In random order, these groups were:

- i** deprived of all caffeine for one week
- ii** allowed to have what is considered a 'normal' amount of caffeine in their diet for one week
- iii** given higher levels of caffeine than 'normal' for one week.

The researchers in this case have employed

- A** a placebo group.
- B** a matched-participants design.
- C** an independent-groups design.
- D** a repeated-measures design.

QUESTION 29☆☆

Fifty volunteers agreed to participate in a study to measure whether recognition, by choosing items they had seen within a selection of other similar items, was a more effective means of assessing the retention of information. Their results were to be compared with another group of fifty other volunteers who were only told to write down what they recalled on blank sheets of paper. The researchers in this case used

- A** a double-blind procedure.
- B** a repeated-measures design.
- C** a matched-participants design.
- D** an independent-groups design.

Short-answer question

QUESTION 30☆☆

Name and describe the experimental procedure designed to control for the experimenter effect.

2 marks

Statistics

Multiple-choice questions

QUESTION 31☆☆

Within their research, psychologists use inferential statistics to

- A** draw conclusions from their research findings.
- B** analyse and compare data from multiple research methodologies.
- C** organise and describe data.
- D** randomly allocate participants.

QUESTION 32☆☆

When results are referred to as 'statistically significant', this means that

- A** other researchers should take note of the results of this experiment.
- B** the results would probably not occur by chance.
- C** this was an important study.
- D** the hypothesis was not supported by the statistics used.

QUESTION 33☆☆

Which of the following p values would be considered to be the most statistically significant?

- A** $p < 0.01$
- B** $p < 0.05$
- C** $p < 0.10$
- D** $p < 0.50$

QUESTION 34☆☆

Inferential statistics are used to

- A** generalise the results of the study to the sample of participants.
- B** generalise the results of a study to a population.
- C** identify extraneous variables.
- D** identify whether an experimenter effect has occurred.

Short-answer question

QUESTION 35☆☆

What do correlations indicate about causal relationships between the variables under study?

2 marks

Research findings

Short-answer question

QUESTION 36☆☆

Identify two factors that should be considered when evaluating the conclusions drawn from a research study?

2 marks

Ethical principles

Multiple-choice questions

QUESTION 37☆

In order to protect the participants' rights to privacy, psychologists apply the ethical principle of

- A informed consent.
- B debriefing after the research has concluded.
- C confidentiality.
- D voluntary participation.

QUESTION 38☆

In order to ensure _____, psychologists must inform participants of the nature of the research and that participants are free to participate or to decline to participate or to withdraw from the research.

- A confidentiality
- B research participation
- C debriefing
- D informed consent

QUESTION 39☆☆

What must researchers emphasise to potential participants before they become involved in a research study?

- A Their participation in the study must be voluntary.
- B The experiment will be explained to the participants, but they are not entitled to feedback about the results of the study.
- C Deception by the experimenter is absolutely not allowed under any circumstances.
- D All of the above.

QUESTION 40☆☆

Which of the following questions could **not** be the subject of experimentation due to ethical considerations?

- A Do interference effects increase in proportion to the level of similarity between the different materials learned?
- B Does recognition provide a more sensitive measure of retention than recall?
- C Do patients with advanced Alzheimer's disease exhibit the same form of forgetting as patients suffering from Korsakoff's syndrome?
- D Do individuals exposed to painful or traumatic situations always experience motivated forgetting?

Short-answer questions

QUESTION 41☆☆

Within a book (and movies) highlighting research into a true case of dissociative identity disorder, the patient is referred to as 'Sybil Dorsett'.

- i What ethical consideration was being applied in this case?
- ii Explain how this principle applies to psychological research, and how it can be seen in this instance.

2 marks

QUESTION 42☆☆

What is the difference between the ethical principles of informed consent and voluntary participation?

2 marks

QUESTION 43☆☆

Briefly explain three ethical principles concerning the rights of all participants in an experiment.

3 marks