On the basis of your performance in this examination, the examiners will provide results on each of the following criteria taken from the course statement:

**Criterion 3** Use evidence to support a psychological view.

**Criterion 4** Analyse and evaluate ideas and information related to Psychology.

**Criterion 5** Display knowledge and understanding of psychological concepts and ideas.
CANDIDATE INSTRUCTIONS

You **MUST** ensure that you have addressed **ALL** of the externally assessed criteria on this examination paper.

You must answer a total of **THREE** questions, **ONE** question from each section.

You must answer each question in a separate answer booklet.

All written responses must be in English.
SECTION A – HUMAN LEARNING

Answer ONE question from this section. You must answer ALL parts of the chosen question.

It is recommended that you spend approximately 60 minutes on this section.

Use a separate answer booklet for this section.

This section assesses Criteria 3 and 5.

Question 1 – Conditioning

Examine the following stimulus items:

**Stimulus 1 – Fear of the dentist**

American and Asian adults who reported high rates of dental fears were asked when their fears began. About 66% replied that they acquired their dental fears in childhood or adolescence, often after a painful treatment (Milgrom et al., 1995; Poulton et al., 1997). These fearful adults reported that the more painful their childhood dental experiences had been, the greater was their fear (Milgrom et al., 1992).

Researchers concluded that the majority of dental fears are acquired in childhood or adolescence, often through classical conditioning. In addition, these fears can keep individuals from asking for or receiving dental treatment for future but necessary dental problems (Abrahamsson et al., 2002).

Belmont, CA: Wadsworth Thomson Learning, p. 205)
Question 1 (continued)

Stimulus 2 – Learning to talk

This graph shows the results of an experiment in which a child who is learning to talk points to her doll and says either ‘doll’, ‘duh’ or ‘dat’ when she wants it.

Day 1 shows the number of times the child uses each word to ask for the doll. At first, the child uses all three words interchangeably. After Day 1 the parents decide to give the child the doll only when she names it correctly.


(a) Referring to the above stimuli and other relevant information, demonstrate your knowledge and understanding of the following concepts:

- conditioned stimulus
- conditioned response
- reinforcement
- schedules of reinforcement

(b) Provide evidence to support explanations of how humans learn through classical and operant conditioning.

Section A continues over the page.
Question 2 – Observational/Social Cognitive learning

Examine the following stimulus items:

Stimulus 1 – Learning via imitation

Observational learning is one of the most powerful mechanisms of learning. Children observe another person who serves as a model and then imitate what the model does, thus learning how to do something they didn’t know before. For example, a child may see an adult hammer nails into boards and try to duplicate the same feat.

Many cultures explicitly encourage such imitative patterns as a way of inducting a child into adult ways. In one Central American society, young girls are presented with miniature replicas of a water jar, a broom, and a grinding stone. They observe how their mothers use the real objects and through constant imitation acquire the relevant skills themselves (Bandura and Walters, 1963). The modern West has a similar practice: toy stores are full of child-sized tools and miniature vacuum-cleaners, cooking sets and dolls that need feeding and nappy changing.

We should note, though, that learning via imitation can be quite complicated. In some cases, much of the learning seems to occur quite a bit before the first performance of the learned behaviour takes place.

This graph shows the results of a study investigating a link between the amount of violent television viewed by children and the level of aggression displayed by the same individuals in their adult years.

The amount of violence viewed by children was categorised as low, medium or high. The measure of aggression is a composite score that reflects the individuals’ self-ratings and ratings of them by others. Higher scores indicate higher levels of aggression.


(a) Referring to the above stimuli and other relevant information, demonstrate your knowledge and understanding of the following concepts:

- modelling
- cognitive processes
- vicarious reinforcement
- latent learning

(b) Provide evidence to support explanations of how humans learn through observational and social cognitive learning.
Answer ONE question from this section. You must answer ALL parts of the chosen question.

It is recommended that you spend approximately 60 minutes on this section.

Use a separate answer booklet for this section.

This section assesses Criteria 3 and 4.

**Question 3 – Memory**

Examine the following stimulus items:

**Stimulus 1 – Baddeley’s working memory model**

(Source: http://cogpsylab.com/category/theory/iq-strategy)

Question 3 continues opposite.
Stimulus 2 – The accuracy of memory

At first glance, our everyday experience strongly suggests that we can safely rely on our memories, because many of our recollections seem to be as crisp as scenes from films we are watching in real time. Do you remember where you were and what you were doing when you heard about the terrorist attacks on 11 September 2001? Many people say yes, and many say that, even today, they can ‘relive’ those frightening moments with astonishing clarity.

Roger Brown and James Kulik (1977) referred to such recollections as flashbulb memories, emotional memories that seem so vivid that people seem able to recount them in remarkable detail. So do flashbulb memories suggest that our memories sometimes operate like video cameras after all?

Maybe not. Consider the following story from Ulric Neisser (1982), himself a memory researcher. For several decades, Neisser repeatedly related a flashbulb memory of the bombing of Pearl Harbor in 1941. It was right before his thirteenth birthday, he recalled vividly, and he was listening with great interest to a baseball game on the radio. Suddenly, a newsman interrupted the game to announce that the Japanese had attacked the American naval base in Pearl Harbor, Hawaii. Neisser realised many years later that this memory could not have been correct, because the bombing of Pearl Harbor occurred in December, but the baseball season ends in October.


(a) Referring to the above stimuli and other relevant information, analyse and evaluate evidence for at least two different explanations of how memories may be formed and stored.

(b) Referring to the above stimuli and other relevant evidence, explain how false memories may be created.

Section B continues over the page.
Section B (continued)

Question 4 – Forgetting

Examine the following stimulus items:

Stimulus 1 – The influence of context

The graph shows the results of Godden and Baddeley’s (1975) experiment into the effect of context on memory and forgetting. Scuba divers learned materials either while on land, or while underwater.

They were then tested in the four possible combinations of learning/recall environments:

- Learned on land/tested on land
- Learned on land/tested underwater
- Learned underwater/tested on land
- Learned underwater/tested underwater

Stimulus 2 – Decay Theory

Some psychologists suggest that forgetting is a process of decay. Memories that are formed and not used begin to fade, become weaker with time, and eventually decay to the point where they can no longer be recollected – that is, they are forgotten.

The concept of decay remains the main way in which forgetting is thought to occur in sensory memory and contributes to the loss of information from short term memory. However, the idea that decay explains the way in which information is forgotten from long-term memory is not as widely accepted.

The decay of a memory over time may be the result of deterioration in the connections between the neurons that combine to make up a memory trace. Decay theory suggests that memories that are not retrieved or rehearsed dissipate over time as the synaptic connections between neurons that constitute the memory trace begin to degrade (Schacter, 1999).

(Source: Adapted from Rawlings, M., & Skouteris, H. (2004) Psychology Two (2nd ed.) Port Melbourne, Vic.: Heinemann, p. 245)

(a) Referring to Stimulus 1, as well as other evidence, explain how context-dependent and state-dependent forgetting may occur.

(b) Referring to the above stimuli, analyse and evaluate at least three explanations of how forgetting can occur. Include other relevant evidence and examples.
Question 5 – Perception

Examine the following stimulus items:

**Stimulus 1 – Viewing objects and people**

When we see someone walking away from us, the image of that person projected onto our retina gets smaller. However, we know that the person is not really changing in size. This phenomenon is called size constancy.

Objects also appear to change shape as they rotate through space or as we move around them. Shape constancy refers to our ability to recognise that the actual shape of the object is not changing despite changes in the shape of the retinal image.

These constancies are important because they enable children to maintain a stable perceptual world as they move about the environment and their retinal images change. Without size constancy, for example, a child watching his mother walk away from him might have trouble recognising her – because she will have appeared to have changed in size. Children would also be very poor at grasping and catching objects without size constancy. Fortunately, much evidence suggests that size constancy emerges soon after birth (Bower, 1965).

Stimulus 2 – The Necker Cube

The top cube can be perceived as if viewed from above (in which case it is a transparent version of Cube A) or as if viewed from below (in which case it is a transparent version of Cube B). Both perceptions fit perfectly well with the information received by your eyes, and so the Necker Cube is compatible with either of these interpretations.

Your perception of the cube, however, is not neutral. Instead, you perceive the cube as being similar to either Cube A or Cube B. In other words, your perception goes beyond the information given in the drawing, by specifying an arrangement in depth.


(a) Referring to the above stimuli and other relevant information, demonstrate your knowledge and understanding of the following psychological concepts:

• perception
• perceptual constancies
• distance and depth cues

(b) Analyse and evaluate explanations of how principles of perceptual organisation and interpretation influence an individual’s view of the world.

Section C continues over the page.
Section C (continued)

Question 6 – Consciousness

Examine the following stimulus items:

Stimulus 1 – Example of circadian rhythms

These graphs show how alertness, core body temperature and the secretion of growth hormone typically fluctuate in a 24-hour rhythm.

*nanogram – one billionth of a gram
*ml – a millilitre; one thousandth of a litre


Question 6 continues opposite.
Question 6 (continued)

Stimulus 2 – A biological view

Some dream researchers argue that dreams are biological phenomena with no meaning at all. According to one such theory, dreams represent interpretations of neural signals initiated in the midbrain during REM sleep (Hobson, 1988; Hobson & McCarley, 1977). Because the initial signals are essentially random, the interpretations rarely make logical sense. Many dream researchers criticise this view, arguing that the presence of dreams during NREM sleep challenges this explanation of dreaming.

More recently, biologically oriented researchers have offered another view that emphasises the role of sleep and dreaming in learning and memory. If they are right, the next time you are tempted to stay up all night to prepare for a big exam, think again. Sleep appears to be involved in the consolidation of memory. Memories for newly learned material are stronger after eight hours of sleep than after eight hours of wakefulness. The data suggests that during NREM sleep, the hippocampus ‘replays’ what it has ‘learned’ during the day and activates relevant parts of the cortex to consolidate the memory (Chrobak & Buzsaki, 1994; Wilson & McNaughton, 1994).

(Source: Adapted from Westen, D., Burton, L. & Kowalski, R. (2006).

(a) Referring to the above stimuli and other relevant information, demonstrate your knowledge and understanding of the following concepts:

- characteristics of normal waking consciousness
- measurements of consciousness
- characteristics of sleep as an altered state of consciousness

(b) Analyse and evaluate explanations of why humans dream.