OFFICE OF TASMANIAN ASSESSMENT, STANDARDS & CERTIFICATION

External Assessment 2021

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PSYCHOLOGY

BHP315116

Pages	20
Questions	6
Answer Booklets	3

Reading time: 15 minutes – you may begin writing during this time

Suggested working time: 3 hours

Instructions

- There are **three (3)** sections to this exam paper:
  - **Section A** – answer **one (1)** question in **essay form**.
  - **Section B** – answer **one (1)** question in **essay form.**
  - **Section C** – answer **one (1)** question in **essay form**.
  - Answer each section in a **separate answer booklet**.
  - Write the question number you are answering to on the front cover of each answer booklet.
- All answers must be written in **English**.
- You **must** make sure your answers address:
  - Criterion 2 analyse perspectives about psychobiological processes.
  - Criterion 3 analyse theories about human learning.
  - Criterion 4 analyse theories about remembering.
  - Criterion 7 use evidence to support a psychological point of view.

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Guide to Exam Structure

		Questions available	How many questions to answer	Suggested working time	Marks available
Section	A	2	1	60 minutes	All criteria are assessed using extended ratings of: A+ to z
Section	B	2	1	60 minutes	
Section	C	2	1	60 minutes	
	Total	**6**	**3**	**180 minutes (3 hours)**	

Section A

Psychobiological Processes

- Answer **one (1)** question from this section in response to the material in any of the extracts (stimuli) provided.
- You must answer **all** parts of the chosen question.
- Use a **separate answer booklet** for this section.
- It is suggested that you **spend approximately 60 minutes** on this section.
- This section assesses **Criteria 2** and **7**.

Question 1 – Visual Perception

Stimulus 1 – My wife and mother-in-law

Figure 1: *"My Wife and My Mother-in-Law" is a famous optical illusion that depicts both an old woman looking off to the left and a young woman facing away, looking over her right shoulder.*

(The old woman's nose is the young woman's chin).

Source: *https://www.livescience.com/63645-optical-illusion-young-old-woman.html*

Question 1 continues

Stimulus 2 – Bottom-up and top-down processing

Visual perception can be enhanced by perceptual set when we correctly anticipate a visual stimulus and thus interpret it more quickly than we would otherwise. For example, as your retina receives the raw sensory information that your teacher writes on the board (bottom-up processing), your perceptual set may enable you to interpret a misspelt word such as *'rember'* as a meaningful word ('remember') in order for you to make sense of what is being written. Your past experience with language and the current context of the sentence would both have played a top-down processing role in allowing you to quickly perceive the misspelt and apparently meaningless word in a meaningful way.

Source: *Grivas, J. (2013). Psychology for Tasmania, South Yarra. Macmillan Education Australia*

Use the information presented in Stimulus 1 and Stimulus 2, as well as other relevant information from the course to:

a) Explain the following concepts related to Visual Perception:
   - bottom-up and top-down processing
   - Gestalt Principles
   - Illusions.

b) Analyse and critically evaluate the explanations, theories and concepts used to explain visual perception.

Question 2 – Consciousness

Stimulus 1 – Electroencephalogram (EEG)

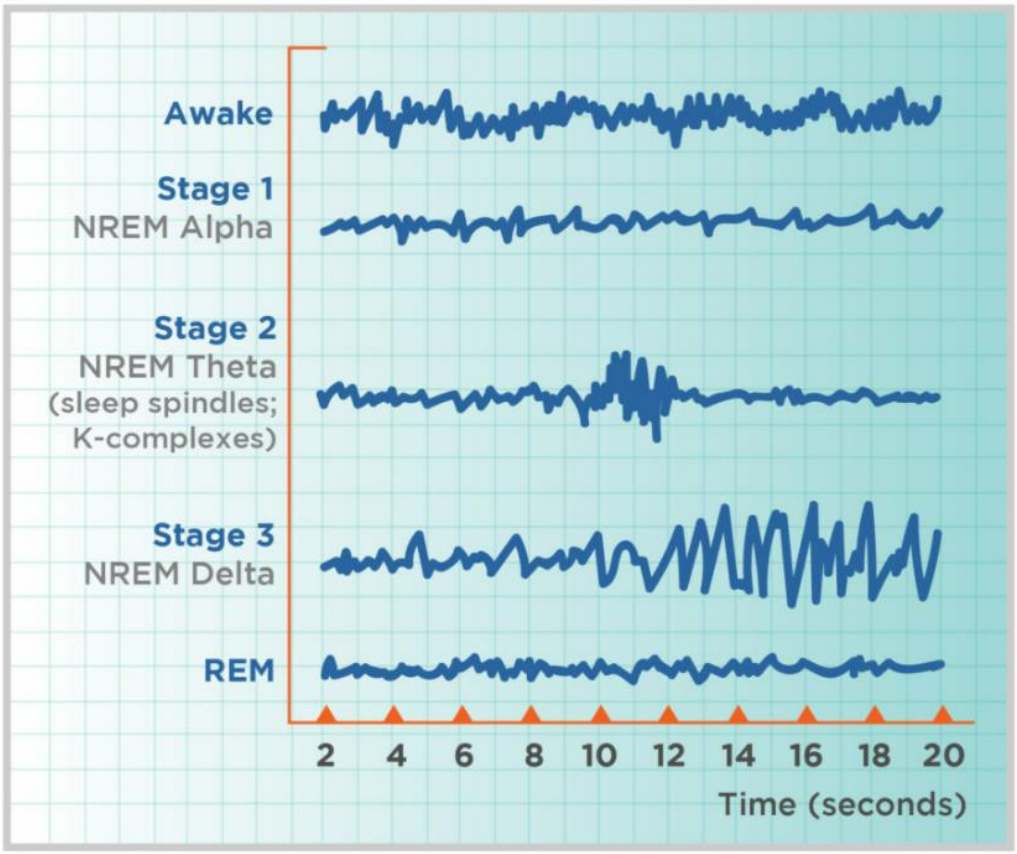

Figure 2: *Electroencephalogram (EEG) recordings during sleep.*

Source: *https://courses.lumenlearning.com/wm-abnormalpsych/chapter/understanding-sleep*

Stimulus 2 – Studying dreaming

Dreaming has always fascinated human beings, although its only very recently that it (and its relationship to sleep) has been studied scientifically. Although theories of sleep and theories of dreaming have been proposed separately, it's difficult to discuss one without the other. For example, sleep deprivation is a common way of studying the normal functions of sleep, and the findings are often expressed in terms of how the dreaming process is disrupted.

Conversely, the scientific study of dreams and dreaming has been conducted mainly in relation to physiological variables during sleep. This required a reliable method of determining precisely when dreaming occurs. Ultimately, this knowledge always depends on the subjective report of the dreamer (there's no independent way of establishing that a dream has taken place). However, this becomes relatively objective if such reports can be reliably linked to physiological phenomena, which, in turn, can be measured by physical techniques.

Source: *Gross, R. (2016). Key Studies in Psychology (6th ed). Hodder Education*

Question 2 continues

Use the information presented in Stimulus 1 and Stimulus 2, as well as other relevant information from the course to:

a) Explain the following concepts in relation to states of consciousness:

- sleep
- sleep deprivation
- role of EEG in measuring sleep.

b) Analyse and critically evaluate the explanations, theories and concepts as to why humans dream.

Section B

Human Learning

- Answer **one (1)** question from this section.
- You must answer **all** parts of the chosen question.
- Use a **separate answer booklet** for this section.
- It is suggested that you **spend approximately 60 minutes** on this section.
- This section assesses **Criteria 3** and **7**.

Question 3 – Conditioning

Stimulus 1 – Little Albert

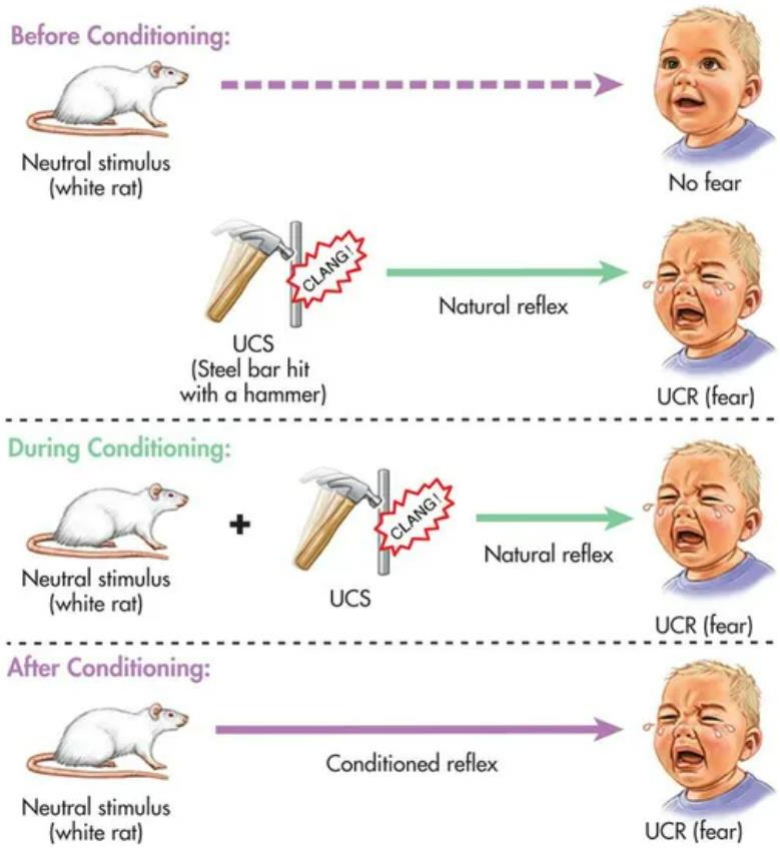

Figure 3: *An illustrative relationship exists between classical conditioning and phobia that can be explained with John B. Watson's experiment.*

Source: *https://psychologybay.blogspot.com/2020/05/classical-conditioning-and-phobias.html*

Question 3 continues

Stimulus 2 – Gambling

An example of the variable ratio reinforcement schedule is gambling. Imagine that Sarah, generally a smart, thrifty woman, visits Las Vegas for the first time. She is not a gambler, but out of curiosity she puts a quarter into the slot machine, and then another, and another. Nothing happens. Two dollars in quarters later, her curiosity is fading, and she is just about to quit. But then, the machine lights up, bells go off, and Sarah gets 50 quarters back. That's more like it! Sarah gets back to inserting quarters with renewed interest, and a few minutes later she has used up all her gains and is $10 in the hole. Now might be a sensible time to quit. And yet, she keeps putting money into the slot machine because she never knows when the next reinforcement is coming. She keeps thinking that with the next quarter she could win $50, or $100, or even more. Because the reinforcement schedule in most types of gambling has a variable ratio schedule, people keep trying and hoping that the next time they will win big. This is one of the reasons that gambling is so addictive—and so resistant to extinction.

Source: *https://psyc1100.pressbooks.com/chapter/operant-conditioning/*

Use the information presented in Stimulus 1 and Stimulus 2, as well as other relevant information from the course to:

a) Explain the following concepts in relation to Human Learning:

- phobias
- conditioning
- schedules of reinforcement.

b) Analyse and critically evaluate the explanations, theories and concepts used to explain Human Learning.

Question 4 – Observational/Cognitive Learning

Stimulus 1 – Observational learning

Figure 4: *This spider monkey learned to drink water from a plastic bottle by seeing the behaviour modelled by a human. According to Bandura, learning can occur by watching others and then modelling what they do or say. This is known as observational learning. There are specific steps in the process of modelling that must be followed if learning is to be successful… Through modelling, Bandura has shown that children learn many things, both good and bad, simply by watching their parents, siblings, and others.*

Source: *https://courses.lumenlearning.com/suny-hccc-ss-151-1/chapter/observational-learning-modeling/#Figure06_04_Monkey*

Stimulus 2 – This place is like a maze

Have you ever gotten lost in a building and couldn't find your way back out? While that can be frustrating, you're not alone. At one time or another we've all gotten lost in places like a museum, hospital, or university library. Whenever we go someplace new, we build a mental representation—or cognitive map—of the location, as Tolman's rats built a cognitive map of their maze. However, some buildings are confusing because they include many areas that look alike or have short lines of sight. Because of this, it's often difficult to predict what's around a corner or decide whether to turn left or right to get out of a building. Psychologist Laura Carlson (2010) suggests that what we place in our cognitive map can impact our success in navigating through the environment. She suggests that paying attention to specific features upon entering a building, such as a picture on the wall, a fountain, a statue, or an escalator, adds information to our cognitive map that can be used later to help find our way out of the building.

Source: *https://courses.lumenlearning.com/wmopen-psychology/chapter/psychology-in-real-life-latent-learning/*

Question 4 continues

Use the information presented in Stimulus 1 and Stimulus 2, as well as other relevant information from the course to:

a) Explain the following concepts in relation to states of Human Learning:

- cognitive maps
- modelling
- Albert Bandura's Social Learning Theory.

b) Analyse and critically evaluate the explanations, theories and concepts used to explain Human Learning.

Section C

Remembering

- Answer **one (1)** question from this section.
- You must answer **all** parts of the chosen question.
- Use a **separate answer booklet** for this section.
- It is suggested that you **spend approximately 60 minutes** on this section.
- This section assesses **Criteria 4** and **7**.

Question 5 – Memory

Stimulus 1 – Semantic network

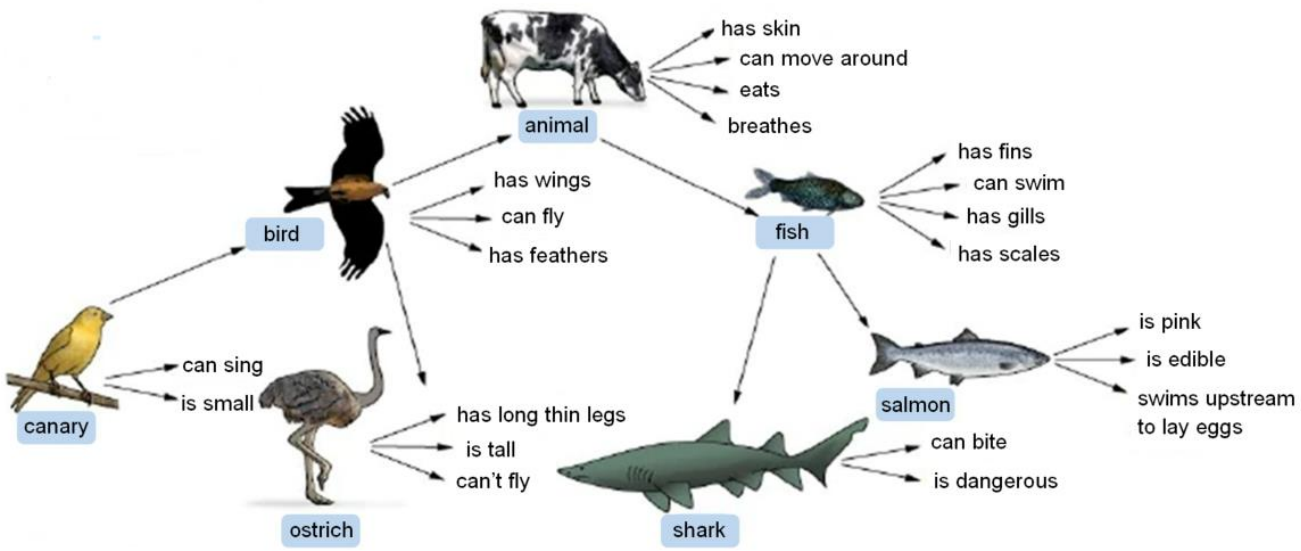

Figure 4: *A semantic network in LTM. According to semantic network theory, our long-term memory is organised in semantic networks in which concepts are interconnected by links.*

Adapted from – source: Grivas, J., Down, R., & Carter, L. (1999). *Psychology, VCE Units 3 & 4 (2nd Ed.), South Yarra: Macmillan Education Australia.*

Question 5 continues

Stimulus 2 – Encoding

Encoding refers to the initial experience of perceiving and learning information. Psychologists often study recall by having participants study a list of pictures or words. Encoding in these situations is fairly straightforward. However, 'real life' encoding is much more challenging. When you walk across campus, for example, you encounter countless sights and sounds—friends passing by, people playing frisbee, music in the air. The physical and mental environments are much too rich for you to encode all the happenings around you or the internal thoughts you have in response to them. So, an important first principle of encoding is that it is selective: we attend to some events in our environment and we ignore others. A second point about encoding is that it is prolific; we are always encoding the events of our lives—attending to the world, trying to understand it. Normally this presents no problem, as our days are filled with routine occurrences, so we don't need to pay attention to everything. But if something does happen that seems strange—during your daily walk across campus, you see a giraffe—then we pay close attention and try to understand why we are seeing what we are seeing.

Source: *https://nobaproject.com/modules/memory-encoding-storage-retrieval*

Use the information presented in Stimulus 1 and Stimulus 2, as well as other relevant information from the course to:

a) Explain the following concepts in relation the psychological study of Memory:
   - encoding
   - semantic network theory
   - long term memory.

b) Analyse and critically evaluate the processes of encoding, storage, and retrieval and at least two theories/models used to explain the psychological study of memory.

Question 6 – Forgetting

Stimulus 1 – Mnemonic Device

Figure 5: *You probably learned some variant on a planet-themed mnemonic in school. In today's eight-planet solar system, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune become 'My Very Educated (or Eager) Mother Just Served Us Nachos'. But raise your hand if you're still mourning Pluto and the corresponding 'nine pickles' that the 'nachos' usurped.*

Source: *https://www.rd.com/list/mnemonic-devices-to-remember-anything/*

Stimulus 2 – Retrieval failure

A series of experiments was done to determine how completely and accurately people remember the visual details of a common object; a United States penny. People were asked to: draw a penny from unaided recall; draw a penny given a list of its visual features; choose from among a list of possible features those which do appear on a penny; indicate what was wrong with an erroneous drawing of a penny; and select the correct representation of a penny from among a set of incorrect drawings. Performance was surprisingly poor on all tasks. On balance, the results were consistent with the idea that the visual details of an object, even a very familiar object, are typically available from memory only to the extent that they are useful in everyday life. It was also suggested that recognition tasks may make much smaller demands on memory than is commonly assumed.

Source: *https://www.sciencedirect.com/science/article/abs/pii/0010028579900136*

Question 6 continues

Use the information presented in Stimulus 1 and Stimulus 2, as well as other relevant information from the course to:

a) Explain the following concepts in relation the psychological study of Forgetting:

- retrieval failure
- attention
- mnemonic devices.

b) Analyse and critically evaluate organic and non-organic explanations, theories and concepts of how forgetting may occur.

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End of Exam

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