Time allowed for this paper
- Working time: 3 hours
- Plus 15 minutes recommended reading time

Candidate Instructions
1. You **MUST** make sure that your responses to the questions in this examination paper will show your achievement in the criteria being assessed.
2. There are **THREE** sections to this paper.
3. You must answer:
   - **ONE** question from **Section A**
   - **ONE** question from **Section B**
   - **ONE** question from **Section C**
4. Answer each section in a separate answer booklet.
5. The recommended time to be spent on a section is given in the instructions in that section.
6. All written responses must be in English.

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 1** Analyse theories about individual differences.

**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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SECTION A – Remembering

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

Use a separate answer booklet for this section.

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

This section assesses Criteria 4 and 7.

Question 1 – Memory

Stimulus 1 – A memory model

![Memory Model Diagram]


Question 1 continues.
Can Funny Lectures Foster Learning?

Some lectures may be hard to pay attention to. Some subjects such as research methods and statistics may seem very dry. What can the instructor do to make these topics more interesting? One possibility is to use humorous examples in the lectures. In Garner's (2006) experiment, all the participants viewed three video-recorded lectures on statistics and research methods. Each participant was randomly assigned to one of two conditions. In one condition (humour condition), the participant viewed lectures with humour segments (e.g., with humorous examples). In the other condition, the participants viewed the lectures without the humour segment (control condition). Garner found that the participants in the humour condition recalled more information on the average than participants in the control condition. Humour may increase recall because it is distinctive, vivid, or it attracts attention. Greater attention may lead to deeper processing of the concepts. This finding has important practical implications. Examples are routinely used to make concepts clearer and more memorable. It may be beneficial for instructors to use humorous examples. There may be some limitations of education humour and the use of humour in the classroom. Offensive or unrelated humour may not be beneficial. It is important for instructors to use appropriate humour that is directly related to the concepts in the course.


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

(a) Explain how the following concepts relate to the psychological study of memory:

- Encoding
- Long term memory

(b) Critically evaluate the role that at least two theories and/or models have had in providing explanations of encoding, storing and retrieving information in memory.

Section A continues.
Section A (continued)

Question 2 – Forgetting

Stimulus 1 - Brain training can help in fight against Dementia

Researchers at the University of Sydney have found that engaging in computer-based brain training can improve memory and mood in older adults with mild cognitive impairment -- but training is no longer effective once a dementia diagnosis has been made. The team, comprising researchers from the Brain and Mind Centre, reviewed more than 20 years of research and showed that brain training could lead to improvements in global cognition, memory, learning and attention, as well as psychosocial functioning (mood and self-perceived quality of life) in people with mild cognitive impairment. Conversely, when data from 12 studies of brain training in people with dementia was combined, results were not positive. Mild cognitive impairment involves a decline in memory and other thinking skills despite generally intact daily living skills, and is one of strongest risk factors for dementia. People with mild cognitive impairment are at one-in-10 risk of developing dementia within a year -- and the risk is markedly higher among those with depression.

Brain training is a treatment for enhancing memory and thinking skills by practising mentally challenging computer-based exercises -- which are designed to look and feel like video games. Dr Amit Lampit from the School of Psychology, who led the study, said the results showed brain training could play an important role in helping to prevent dementia. "Our research shows that brain training can maintain or even improve cognitive skills among older people at very high risk of cognitive decline -- and it's an inexpensive and safe treatment," Dr Lampit said.

(Source: Adapted from University of Sydney. (2016, November 14). Brain training can help in fight against dementia, meta-analysis shows. Science Daily).

Question 2 continues.
Use the information presented in Stimulus 1 and Stimulus 2, as well as other relevant information, to:

(a) Explain how the following concepts relate to the failure to recall information previously encoded;
   - Dementia
   - Improving recall
   - Interference Theory

(b) Critically evaluate the role of both organic and non-organic causes of forgetting.
SECTION B – Human Learning

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

**Use a separate answer booklet for this section.**

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

This section assesses **Criteria 3 and 7**.

**Question 3 – Conditioning**

**Examine the following stimulus items:**

**Stimulus 1 - Classical Conditioning**

Danny’s older brothers like to pop balloons near him. The sudden loud noise frightens him. Danny's brother continued to do this several times over the period of two weeks. Now, every time Danny sees balloons he becomes fearful. He cries and runs away so that he can avoid the balloons. Danny also cries when he sees beach balls.

Within an educational setting, a token economy is a system for providing positive reinforcement to a child or children by giving them tokens for completing tasks or behaving in desired ways. Token economies are used as a method of strengthening a behaviour, or increasing its frequency, because the tokens are a way of “paying” children for completing tasks and the children can then use these tokens to buy desired activities or items (Miltenberger, 2008).

**Figure 3:** The basic token system cycle. (Source: http://www.educateautism.com/token-economy.html)

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

(a) Explain the following concepts used in the psychological study of human learning:

- Emotional conditioned response
- Reinforcement
- Real life applications of classical and operant conditioning

(b) Evaluate and explain how humans learn and modify their behaviour through both classical and operant conditioning.
Question 4 – Observational/Cognitive Learning

Examine the following stimulus items:

Stimulus 1 – Observational Learning and Advertising

One important aspect of a cognitive learning perspective is observational learning; this occurs when people change their own attitudes or behaviours simply by watching the actions of others. Learning occurs as a result of vicarious rather than direct experience. This type of learning is a complex process; people store these observations in memory as they accumulate knowledge, perhaps using this information at a later point to guide their own behaviour.

One example of observational learning comes from the world of advertising.

![Figure 4: Stages of the effects of advertisements on behaviour](http://2012books.lardbucket.org/books/advertising-campaigns-start-to-finish/s07-05-internal-influences-on-consume.html)

(Source: Adapted from http://2012books.lardbucket.org/books/advertising-campaigns-start-to-finish/s07-05-internal-influences-on-consume.html)
Question 4 (continued)

Stimulus 2 – Vicarious Learning

One thing that Bandura found in his early studies is that children do not always immediately show the learned behaviour. Bandura (1965) showed a group of children a model who was rewarded for displaying new aggressive behaviours towards an inflated clown (BoBo). A second group of children were shown the same aggressive behaviours, but this time the behaviours were punished. When the children were later given the chance to play with the clown, those who had seen the behaviour rewarded showed many of the model’s aggressive behaviours, whereas the one’s who had seen the behaviours punished did not. However, when these same children were later offered rewards for displaying these aggressive behaviours they did so without difficulty! Bandura interpreted this as suggesting that all the children had learned the behaviours but vicarious punishment had inhibited the responses of some of the children. This distinction between acquisition and performance has been of great interest to researchers studying the potential effects on children (and adults) of viewing violence on TV.


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

(a) Explain the following concepts used in the psychological study of human learning:

- Modelling
- Processes involved in observational learning
- Latent learning

(b) Critically evaluate theories explaining how humans learn through observational and cognitive learning.
SECTION C – Individual Differences

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

**Use a separate answer booklet for this section.**

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

This section assesses **Criteria 1 and 7.**

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**Question 5 – Gender**

**Examine the following stimulus items:**

**Stimulus 1 – Gender roles and stereotypes**

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**Figure 5** Toy image:
(Source: https://www.today.com/video/target-to-customers-our-toy-aisle-is-now-gender-neutral-501423683785?v=b)

Gender toy division has been in existence for decades, the turn of the century brought traditional gender roles into toy creation, the reason for it was a logical one: an attempt to “train” children for what would later be their adult roles as mother or worker. Toys for girls from the 1920s to the 1960s focused heavily on domesticity and nurturing, whereas boy toys emphasized preparation for working in the industrial economy. Today, despite the idea that girls can still grow up to be anything they want, and that boys are just as likely to become custodial parents, caregivers and homemakers, toys have become as gender divided as they were in the 1950s. Even in our attempts to address the issue, we create and reinforce stereotypes.

(Source: Adapted from article: Marty, R Dec 10 2014: https://www.care2.com/causes/when-it-comes-to-gendered-toy-division-we-havent-made-any-progress.html)

**Question 5 continues**
Question 5 (continued)

Stimulus 2 – Brain Differences

No one would dispute that men and women behave in different ways; the question is why? Are we biologically wired that way or is it due to social conditioning? Recent advances in neuroimaging have provided new insights into how women and men use their brains differently, according to Louann Brizendine. She says that women have 11% more neurones in the area of the brain devoted to emotion and memory.

Women’s brains have a thicker corpus callosum, the cable of nerves that channels communication between the brain’s two hemispheres. Women tend to use both hemispheres for language tasks, which may be why girls tend to learn to talk earlier than boys. The right hemisphere plays a dominant role in the male brain, and it is this side that we use to navigate the world and perform spatial tasks.

Some experts believe the physical differences in the brain may not be there at birth but are gradually sculpted. This is because social conditioning begins right from the first day of life, when the brain produces neurones at the rate of 500 000 a minute.


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

(a) Explain the following terms used in relation to individual differences in gender:

- Gender identity
- Gender stereotypes
- Biological influences on gender

(b) Critically evaluate theories of both genetic and environmental factors influencing gender differences.
Section C (continued)

Question 6 – Intelligence

Examine the following stimulus items:

Stimulus 1 – Environmental intervention

Intervention can help kids who are at risk

Through the University of North Carolina’s “Abecedarian Project”, Craig Ramey and his colleagues demonstrated that early intervention could greatly enhance the development of children whose mothers have low incomes and education levels. The children in the project were randomly assigned to receive either an intensive 5-year program of full day, full year child care and parent involvement activities beginning in the first few months of the child’s birth, or to receive only free formula and diapers.

After 3 years, dramatic results were evident: the program children had an average IQ score of 105, while the control group children averaged 85. And unlike many programs, which began intervention at 4, the effects of the program on IQ held over time. The program children were less likely to repeat a grade in school and demonstrated better achievement in reading and mathematics throughout elementary and high school.

At age 21, the children who participated in the 5-year program still displayed a significant intellectual advantage over the control children. Clearly this intensive, early intervention had a long-lasting impact of these children’s lives (Ramey, Campbell & Blair 1998).


Stimulus 2 – Heritability of intelligence

<table>
<thead>
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<th>Expected similarity</th>
<th>IQ correlation between</th>
<th>% of shared genes</th>
<th>Median correlation</th>
</tr>
</thead>
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<td>1 MZ twins reared together</td>
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<td>100</td>
<td>0.85</td>
</tr>
<tr>
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<td>4 Siblings reared together</td>
<td>50</td>
<td>50</td>
<td>0.45</td>
</tr>
<tr>
<td>5 Parent and offspring reared together</td>
<td>50</td>
<td>50</td>
<td>0.39</td>
</tr>
<tr>
<td>6 Siblings reared apart</td>
<td>50</td>
<td>50</td>
<td>0.24</td>
</tr>
<tr>
<td>7 Parent and offspring reared apart</td>
<td>50</td>
<td>50</td>
<td>0.22</td>
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<tr>
<td>8 Adopting parent and offspring</td>
<td>0</td>
<td>0</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Figure 3: Based upon Bouchard and McGue (1981) meta-analysis of 111 studies on IQ correlation between relatives.

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

(a) Explain the following terms used in relation to individual differences in intelligence:

- Enrichment
- Heritability
- Intellectual potential

(b) Critically evaluate the different influences on intelligence.
Many contemporary personality psychologists believe that there are five basic dimensions of personality, often referred to as the "Big 5" personality traits. The five broad personality traits described by the theory are extraversion, agreeableness, openness, conscientiousness, and neuroticism. The five-factor theory emerged to describe the essential traits that serve as the building blocks of personality.

**Figure 6:** The 'big five' personality factors.

(Source: Gross, R. Psychology, the science of the mind and behaviour, 5th Edition, Hodder Arnold. Pp743)
Stimulus 2 – Personality through the lifespan

Your true self: How your personality changes throughout life

As a child, Wendy Johnson was extremely shy. “One of my report cards said: ‘Wendy is so shy, it’s painful to watch!’” She’s not like that now. “I am definitely a person who learned to overcome overt shyness,” says Johnson, a psychologist at the University of Edinburgh, UK. She says shyness is an indicator of a low level of extroversion, a key measure of personality, which she studies. So does this mean Johnson has changed her personality? Undoubtedly, she says.

That answer might surprise you. Most of us consider our personality to be an integral and unchanging part of who we are – perhaps the essence of that thing we call the self. In 1887, psychologist William James went so far as to argue that it becomes “set like plaster” by the age of 30. His idea stuck. Psychologists have long debated how to measure personality, settling eventually on the “big five” traits. But at least they were able to agree on a definition: personality refers to an individual’s thought patterns and behaviours, which tend to persist over time. Now mounting evidence is undermining that notion. Personality is far more mutable than we thought. That may be a little unsettling. But it’s also good news for the almost 90 per cent of us who wish our personalities were at least a little different. There’s no doubt that personality is partly genetic. What’s less certain is how much is down to our genes and how much to nurture.

(Source: Young, E. 19 April 2017: https://www.newscientist.com/article/mg23431220-400-mercurial-you-your-lifelong-personality-change/)

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

(a) Explain the following terms used in relation to individual differences in personality:

- Trait personality theories
- Environmental factors that impact personality
- Personality

(b) Analyse and critically evaluate theories on the genetic and environmental factors influencing personality development throughout an individual’s lifespan.