

PSYCHOLOGY

UNITS 3 & 4

Use this page as an overlay for marking the multiple choice answer sheets. Simply photocopy the page onto an overhead projector sheet. The correct answers are open boxes below. Students should have shaded their answers. Therefore, any open box with shading inside it is correct and scores 1 mark.

	ONE ANSWER PER LINE		ONE ANSWER PER LINE		ONE ANSWER PER LINE
1	☐ ☐ ☐	15	☐ ☐ ☐	29	☐ ☐ ☐
2	☐ ☐ ☐	16	☐ ☐ ☐	30	☐ ☐ ☐
3	☐ ☐ ☐	17	☐ ☐ ☐	31	☐ ☐ ☐
4	☐ ☐ ☐	18	☐ ☐ ☐	32	☐ ☐ ☐
5	☐ ☐ ☐	19	☐ ☐ ☐	33	☐ ☐ ☐
6	☐ ☐ ☐	20	☐ ☐ ☐	34	☐ ☐ ☐
7	☐ ☐ ☐	21	☐ ☐ ☐	35	☐ ☐ ☐
8	☐ ☐ ☐	22	☐ ☐ ☐	36	☐ ☐ ☐
9	☐ ☐ ☐	23	☐ ☐ ☐	37	☐ ☐ ☐
10	☐ ☐ ☐	24	☐ ☐ ☐	38	☐ ☐ ☐
11	☐ ☐ ☐	25	☐ ☐ ☐	39	☐ ☐ ☐
12	☐ ☐ ☐	26	☐ ☐ ☐	40	☐ ☐ ☐
13	☐ ☐ ☐	27	☐ ☐ ☐		
14	☐ ☐ ☐	28	☐ ☐ ☐		

b. Answer

- *The subdivision of the peripheral nervous systems responsible for the movement was Julie's somatic nervous system.*
- *Her brain formulated the response to run back to her locker.*
- *Messages were sent from the CNS via her motor neurons, which travelled along efferent pathways to the effector.*
- *The message reached the muscles in her legs, and Julie ran back to her locker.*

4 marks Students make all of the above points
 3 marks Students make three of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

c. Answer

- *This is an episodic memory.*
- *The hippocampus consolidates the explicit details of the event such as the need for a calculator in her exam or the location of her locker etc.*
- *The amygdala consolidates the emotional detail of the event such her worry, anxiety or fear.*

3 marks Students make all of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

Question 3**a. Answer**

- *Breathing retraining reduced the self-reported symptoms of specific phobia more than the benzodiazepine agent and no treatment.*
- *Benzodiazepine reduced self-reported symptoms of specific phobia more than no treatment.*
- *An appropriate reference to the data, for example: Those in Condition 3 experienced a mean of 12 phobic symptoms whilst those in Condition 1 experienced a mean of 4.*

3 marks Students make all of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

b. Answer

- *Condition 3 as a control or comparison group.*
- *This allows comparison to be made with Conditions 1 and 2 to determine if the effects are due to the evidence-based treatment used.*

2 marks Students make both of the above points
 1 mark Students make one of the above points

c. Answer

- *The experimental design used in this experiment was a between subjects design.*
- *A mixed design involves an experimental design which combines elements of a between subjects design and a within subjects design.*
- *Both designs involve comparisons between subjects in each condition however a mixed design also involves comparison between subjects within in condition.*

3 marks Students make all of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

d. Answer

- *The participants must be taught techniques to control their breathing which reduce physiological arousal.*
- *The participants should use these techniques when they encounter their phobic stimulus to reduce their experience of phobic symptoms.*

2 marks Students make both of the above points

1 mark	Students make one of the above points
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e. Answer

- *It is common for those experiencing a specific phobia to have GABA dysfunction.*
- *Benzodiazepines mimic the role of inhibitory neurotransmitters and make postsynaptic neurons less likely to fire.*
- *This can decrease the phobic symptoms experienced by those in Condition 1.*

3 marks Students make all of the above points

2 marks Students make two of the above points

1 mark Students make one of the above points

f. Answer

- *Either cognitive behavioural therapy (CBT) **OR** systematic desensitisation.*
- *Cognitive behavioural therapy involves identifying negative thoughts and behaviours and replacing them with more positive ones. As cognitive factors change so too do behavioural factors and vice versa.*
- *Systematic desensitisation involves learning a relaxation technique which is used as the individual works through a fear hierarchy pairing the relaxation technique with graduated pairings of the stimuli until the phobic stimuli can be encountered without a phobic reaction.*

3 marks Students make the first point, one of the next two points and link it to the scenario

2 marks Students make two of the above points or one point only and link it to the scenario

1 mark Students make one of the above points with no link to the scenario

Question 4

a. Answer

- *Cultural continuity involves the preservation of historical traditions of a culture into the future.*
- *Cultural continuity is likely achieved by Koen as he partakes in activities which increase his understanding of his culture such as learning on country, sharing stories and songlines and establishing meaningful relationships.*
- *Self-determination involves participating in decisions that affect one's life.*
- *Koen likely achieves self-determination because he actively and freely chooses to engage with his community to deepen his cultural connection.*

4 marks Students make all of the above points

3 marks Students make three of the above points

2 marks Students make two of the above points

1 mark	Students make one of the above points
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b. Answer

- *Koen uses a multimodal system of learning which involves learning through multiple means in which skills and knowledge are interconnected for example through relationships and through songlines.*
- *A behaviourist approach involves learning through interactions with the environment.*
- *One appropriate difference which explains both sides is, for example, behaviourist approaches rely on learning through one method whilst multimodal systems incorporate many interconnected ways of learning.*

3 marks Students make all of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

Question 5**a. Answer**

- *Exhaustion*
- *Thomas can no longer function in daily life due to the prolonged effects of cortisol / chronic stress.*
- *This is illustrated through his diagnosis with a digestive disorder*

3 marks Students make all of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

b. Answer

- *A bidirectional connection, known as the gut-brain axis connects the brain and the gut.*
- *Stress is believed to reduce the diversity of gut microbiota.*
- *This could lead to Thomas' digestive disorder.*

3 marks Students make all of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

c. Answer

- *A BAC of 0.05 has equivalent effects to 17 hours of sleep deprivation.*
- *24 hours of sleep deprivation has equivalent effects to a BAC of 0.1.*
- *Therefore cognitive effects such as poor thinking and decision making are worse for one night's full sleep deprivation than a BAC of 0.05.*

3 marks Students make all of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

d. Answer

- *Thomas should use Bright Light Therapy.*
- *This involves shining a safe but intense amount of light into the eyes to suppress the release of melatonin.*
- *Thomas should use this early in the morning once he finishes his night shift to keep him awake during the day and recalibrate his circadian rhythm to a more desired one.*

3 marks Students make all of the above points
 2 marks Students make two of the above points
 1 mark Students make one of the above points

e. Answer

- *Social wellbeing describes the ability of an individual to form and maintain meaningful bonds and adapt to social situations.*
- *Emotional wellbeing describes the ability of an individual to control and express their own emotions and respond to others.*
- *Thomas likely has low social and emotional wellbeing as he is isolated from his friends which negatively impacts his mental health.*

3 marks Students make all of the above points

2 marks Students make two of the above points

1 mark Students make one of the above points

Question 6**a. Answer**

Answers will vary, but for example: It is expected that students who use acronyms will have a better recall ability than those who do not use acronyms.

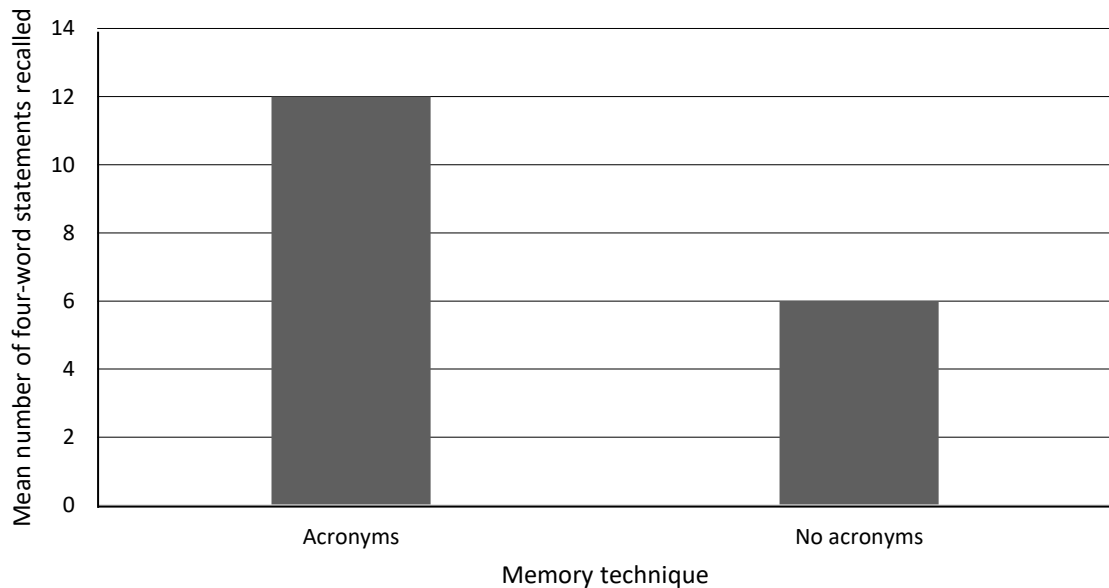
3 marks Students give direction, two levels of the independent variable – acronyms or no acronyms, and the dependent variable – recall ability.

2 marks Students give a good attempt at an improved hypothesis

1 mark Students give a partial attempt at an improved hypothesis

b. Answer

Mean number of four-word statements recalled with and without acronyms



1 mark for correct labelling of the independent variable on the x-axis

1 mark for correct labelling of the dependent variable on the y-axis

1 mark for correct visual representation of the results

c. Answer

- *Acronyms are abbreviations formed from the first letter of each word and pronounced as a single word.*
- *Acronyms improve retrieval as cues that make it easier to find the information are also encoded into memory.*
- *Hannah's findings support this as those who used acronyms recalled more words (12) than those who did not (6).*

3 marks Students make all of the above points
2 marks Students make two of the above points
1 mark Students make one of the above points

d. Answer

- *Short term memory has a capacity of 5 – 9 items.*
- *Those in Group 2 relied on their short-term memory as they did not have acronyms to enable encoding. (This is within the expected range for STM).*

2 marks Students make both of the above points
1 mark Students make one of the above points

e. Answer

- *The neurotransmitter glutamate is involved.*
- *As an excitatory neurotransmitter it stimulates a postsynaptic neuron. If this happens regularly the neural pathway is strengthened, enabling learning.*

2 marks Students make both of the above points
1 mark Students make one of the above points

f. Answer

- *Hannah's study has low external validity.*
- *The findings of Hannah's study cannot be generalised beyond her sample due to the small sample size / use of convenience sampling / potential presence of extraneous variables.*

2 marks Students make both of the above points
1 mark Students make one of the above points

Question 7**Answer**

Note: Allocate 10 – 0 marks for the extent to which students define and explain the relevant ideas.

10 – 9 marks	- Insightful, detailed, and relevant evaluation that clearly explains the predicted results in full and mentions serotonin, cortisol, physical health, and mood. - Accurate and detailed explanation of the role of serotonin in mood regulation and stabilisation with reference to its gradual effect as a neuromodulator linked to decreased levels in the stress condition and no change in the control condition. - Thorough description of the role of cortisol in aiding the body to combat stress, which is linked to the General Adaptation syndrome. Participants in the stress condition are likely to be in the resistance stage at the end of the four weeks, justifying the predicted increase whilst those in the control do not enter the model and therefore do not experience a change in cortisol levels. - Discussion of the impact of stress on physical health and cortisol in suppressing the immune system which is linked to the results of the Stress and Wellbeing Assessment and the changes in cortisol levels. - Demonstrates thorough knowledge of relevant psychological concepts and use of appropriate terminology. - Students do not need to detail an implication of the research or evaluate the validity of the potential findings but must reference all the predicted results.
8 – 7 marks	- Accurate evaluation that clearly explains the predicted results and mentions serotonin, cortisol, physical health, and mood. - Include at least one full description of either serotonin or cortisol, but a brief description of the other is possible. - Some explanation of the role of serotonin in mood regulation and stabilisation with reference to its gradual effect as a neuromodulator linked to decreased levels in the stress condition and no change in the control condition. - Some description of the role of cortisol in aiding the body to combat stress, which is linked to the General Adaptation syndrome. - Participants in the stress condition are likely to be in the resistance stage at the end of the four weeks, justifying the predicted increase whilst those in the control do not enter the model and therefore do not experience a change in cortisol levels. - Discussion of the impact of stress on physical health and cortisol in suppressing the immune system which is linked to the results of the Stress and Wellbeing Assessment and the changes in cortisol levels. - Demonstrates knowledge of relevant psychological concepts and use of appropriate terminology. - Students do not need to detail an implication of the research or evaluate the validity of the potential findings but must reference all the predicted results.
6 – 5 marks	- Meets the minimum standard for addressing all required elements of the question or the response deals with most of the required elements to a very high standard. - A simple, basic (maybe brief) description of the predicted results and the role of serotonin, cortisol, mood, and physical health. - Demonstrates some knowledge of relevant psychological concepts and use of appropriate terminology which is mostly accurate. - Students do not need to detail an implication of the research or evaluate the validity of the potential findings but must reference all the predicted results.

Marks below 5 will be missing a key aspect from the question. They may identify aspects of the results and discuss generic issues, but not enough to allow for the informative discussion of the potential results.

4 – 3 marks	• Basic discussion that addresses some aspects of the question in a superficial or generic way, but unlikely to include evaluation of reasons for the results. • Identifies psychological information with limited detail and includes numerous inaccuracies and / or relevance but will consider some aspects of the question. • Some attempt to use psychological terminology but when used it is not always appropriate.
2 – 1 marks	• Very minimal discussion that reflects very limited understanding of the requirements of the question. For 2 marks, it will include one aspect of the question. • Very little or no use of relevant information or the predicted results. • Lists or rewords or restates elements of the scenario rather than discusses the content.

END OF SUGGESTED SOLUTIONS

