

Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

StemUp Model Solution

Forename(s)

Candidate signature

AS PSYCHOLOGY

Paper 2 Psychology in Context

Thursday 16 May 2019

Afternoon

Time allowed: 1 hour 30 minutes

Materials

For this paper you may use:

- a calculator.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided.
- Do **not** write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 72.
- You will be assessed on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	



J U N 1 9 7 1 8 1 2 0 1

Section A**Approaches in Psychology**

Answer **all** questions in this section.

0	1
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Explain the function of the endocrine system.

[4 marks]

The endocrine system is a network of glands, such as the pituitary, thyroid and adrenal glands, that regulates the activity of cells and organs and controls vital physiological processes such as growth, metabolism and the stress response.

Glands secrete hormones (chemical messengers) directly into the bloodstream, which carries them around the body. Hormones only affect target cells that have specific receptors for them; when a hormone binds to its receptor it triggers a physiological change in that cell. The pituitary, the 'master gland', is controlled by the hypothalamus and releases hormones that regulate the other glands.

For example, in the fight or flight response the adrenal medulla releases adrenaline, which increases heart rate and blood pressure to prepare the body to deal with a threat. Hormone imbalances can cause dysfunction, e.g. excess cortisol causes Cushing's disease.



Only **one** answer per question is allowed.

For each answer completely fill in the circle alongside the appropriate answer.

CORRECT METHOD



WRONG METHODS



If you want to change your answer you must cross out your original answer as shown. 

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. 

0 2

Which of the following is **not** a feature of the cognitive approach in psychology?

Shade **one** circle only.

Internal mental processes are studied:

[1 mark]

A using computer models.

☐

B using direct observation.

☒

C using inference.

☐

D using theoretical models.

☐

0 3

Briefly outline **one** limitation of the cognitive approach in psychology.

[1 mark]

It relies on computer models of the mind, which is a weakness because humans, unlike computers, are influenced by emotion and motivation, so the analogy oversimplifies how real people think.

Turn over for the next question

Turn over ►



Jamil watches his older brother, Sahib, washing the family car. He sees his brother use a bucket of water and a sponge to clean the car and a hose to rinse it. Their father praises Sahib. Later, the family see Jamil with a bowl of water washing his toy cars.

0 4

Use your knowledge of **three** features of the social learning explanation of behaviour to explain Jamil's behaviour.

[6 marks]

Imitation: imitation is when an observer copies the behaviour of a model they have watched. Jamil imitates Sahib's car-washing behaviour, using a bowl of water to wash his toy cars just as Sahib used a bucket and sponge on the family car.

Identification: an observer is more likely to imitate a model they identify with, e.g. one who is similar to them or high in status. Sahib is Jamil's older brother and the same sex, so Jamil looks up to him and wants to be like him.

Vicarious reinforcement: the observer sees the model being rewarded, so expects the same reward for the behaviour. Jamil saw his father praise Sahib for washing the car, so he copies the behaviour in the hope that he will be praised too.

Extra space



0 5

Describe **and** evaluate the biological approach in psychology.**[12 marks]**

You may use this space to plan your answer.

The biological approach sees humans as biological organisms, so behaviour should be explained in terms of physical processes: genes, brain structure, the nervous system, neurochemistry and hormones. Behaviour is partly inherited through genes; the genotype is a person's genetic make-up, while the phenotype is how those genes are expressed through interaction with the environment. Twin studies compare concordance rates of monozygotic (100% shared genes) and dizygotic (about 50%) twins to estimate heritability.

Behaviour is also linked to the structure and function of the brain, with functions localised in specific areas, e.g. Broca's area for speech production. Neurotransmitters such as serotonin and dopamine pass signals across the synapse, and imbalances are linked to disorders, e.g. low serotonin with depression and OCD. Evolution by natural selection explains why behaviours that aided survival and reproduction, such as attachment, have been passed on.

A strength is the approach's real-world application. Understanding neurotransmitters has led to drug therapies such as SSRIs, which increase serotonin availability and reduce symptoms of depression and

Turn over ►

OCD, allowing many people to manage their condition and live normal lives, with economic benefits as fewer days are lost from work.

A further strength is that it uses scientific methods, such as controlled experiments, fMRI and EEG scans, and twin and family studies. These are objective, highly controlled and replicable, allowing cause and effect to be inferred and increasing the reliability and validity of its conclusions, which gives the approach scientific credibility.

However, the approach is reductionist: it breaks complex behaviour down into its smallest parts, such as the action of a single neurotransmitter.

This may overlook the influence of cognition, culture and social context, e.g. the role of negative thinking in depression, so its explanations are incomplete. Searching for a single biological cause of complex behaviours has led to problems such as the search for a 'criminal gene'.

It is also determinist, suggesting behaviour is governed by internal biological causes over which we have no control. This ignores free will and raises issues of responsibility, e.g. whether a criminal can be blamed if their behaviour is caused by their genes.

Finally, it is difficult to separate nature from nurture: concordance rates for MZ twins are never 100%, and twins share environments as well as genes, so environmental influences cannot be ruled out. An interactionist view, such as the diathesis-stress model, combining biological and environmental explanations, may therefore be more valid.

Extra space



[illegible]

[illegible]

Section B

Psychopathology

Answer **all** questions in this section.

0 6

Outline **two** definitions of abnormality.

[4 marks]

Definition 1 *Deviation from social norms: behaviour is abnormal if it differs from the accepted, unwritten standards of behaviour of a particular society or cultural group. Such behaviour is unexpected by other members of that group and may offend them, e.g. antisocial personality disorder.*

Definition 2 *Failure to function adequately: a person is abnormal if they cannot cope with the demands of everyday living, e.g. holding down a job or maintaining hygiene (Rosenhan and Seligman). Their behaviour is maladaptive, irrational or dangerous and causes distress to themselves or others.*

0 7

Give **two** cognitive characteristics that might occur in someone who has obsessive compulsive disorder (OCD).

[2 marks]

1. Recurrent, intrusive obsessive thoughts, e.g. about germs and contamination.

2. Awareness that their obsessions and compulsions are irrational.

Extra space

Turn over ►



A researcher treating obsessive compulsive disorder (OCD) compares two therapies. **Therapy A** requires clients to attend a 20-week course and **Therapy B** requires a matched sample of clients to attend a different 20-week course. The clients are all females who are 40 years old.

At the beginning and at the end of the 20-week courses, each client gives a 'satisfaction with life' rating out of a possible score of 30, where a high score indicates high satisfaction.

08.1

What is a matched pairs design?

[2 marks]

Participants are paired up on key variables that could affect the DV, such as age or severity of the disorder. One member of each pair is then placed in each condition, e.g. one in Therapy A and the other in Therapy B.

Extra space

08.2

How is using a matched pairs design an improvement on an independent groups design?

[1 mark]

It reduces the effect of participant variables, so the researcher can be more confident that any difference in ratings is due to the therapy and not to differences between the people in each group.

09

Identify **one** other variable on which the clients must be matched in this study.

[1 mark]

The severity of their OCD symptoms before therapy began.



At the end of the 20-week therapy courses the median ratings for each group are as follows:

Table 1 Median satisfaction with life ratings for Therapy A and Therapy B at the beginning and the end of the 20-week courses

	Median satisfaction with life ratings for Therapy A	Median satisfaction with life ratings for Therapy B
At the beginning of the course	12.5	13
At the end of the course	17	22.5

1 0

What do the median values in **Table 1** suggest?
Justify your answer.

[4 marks]

Both therapies appear to be effective, as median satisfaction ratings increased in both groups: Therapy A rose by 4.5 (from 12.5 to 17) and Therapy B rose by 9.5 (from 13 to 22.5).

Therapy B seems more effective than Therapy A, as its median at the end was 5.5 points higher (22.5 vs 17) and its improvement was more than double that of Therapy A (9.5 vs 4.5).

The two groups were well matched at the start, as their medians differed by only 0.5 (12.5 vs 13), so the difference at the end is likely due to the therapies rather than to initial differences.

Extra space

Turn over ►



1 1

Explain why collecting qualitative data in this study might have been a more useful way of assessing the effectiveness of the two therapies.

[2 marks]

A single satisfaction rating out of 30 does not explain why a client feels the way they do. Qualitative data, e.g. interviews, would allow each client to describe in detail how the therapy has affected their OCD symptoms and daily life, giving a more valid, in-depth picture of each therapy's effectiveness.

1 2

Describe **and** evaluate the two-process model as an explanation of phobias.

[8 marks]

Mowrer's (1960) two-process model explains phobias through learning: they are acquired by classical conditioning and maintained by operant conditioning.

Acquisition: a neutral stimulus (NS) becomes associated with an unconditioned stimulus (UCS) that naturally produces fear (UCR). After pairing, the NS becomes a conditioned stimulus (CS) that produces fear on its own (CR). Watson and Rayner (1920) conditioned Little Albert to fear a white rat by pairing it with a loud noise; his fear generalised to similar stimuli such as a rabbit and a fur coat.

Maintenance: phobias persist because of negative reinforcement. Avoiding the phobic stimulus reduces anxiety, which is rewarding, so the avoidance behaviour is strengthened and repeated. This prevents extinction, as the person never learns the stimulus is harmless.

A strength is its real-world application. It led to effective behavioural therapies, such as systematic desensitisation and flooding, which work by preventing avoidance so the fear response is extinguished. Their success in treating specific phobias, e.g. arachnophobia, supports the model.



However, not everyone with a phobia can recall a traumatic conditioning experience; DiNardo et al. (1988) found many dog phobics had never had a frightening encounter with a dog, while some people who had been bitten did not develop a phobia. This suggests a diathesis, such as a genetic vulnerability, is also needed.

The model also cannot explain why phobias of snakes and heights are far more common than of cars. Seligman's (1971) biological preparedness suggests we are evolutionarily predisposed to fear stimuli that were dangerous to our ancestors, so the model is incomplete.

Finally, it ignores cognitive factors, such as irrational beliefs about the phobic stimulus, and phobias can be learned through modelling. Avoidance may also be driven by seeking safety rather than escaping anxiety, e.g. agoraphobics staying home to feel safe, so a single learning explanation is too simplistic.

Extra space

Turn over ►



[illegible]

Section C**Research Methods**

Answer **all** questions in this section.

Research findings indicate an improvement in memory if the locations of learning and recall are the same. To test these findings, an experiment was conducted under the following conditions:

Condition 1: 20 people learned and recalled **Word list A** in the same location.

Condition 2: The same 20 people learned **Word list B** in one location and recalled **Word list B** in a different location.

The experiment was counterbalanced and the two conditions were completed in a single day.

1	3
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Identify the type of experiment used in this study. Shade **one** circle only.

[1 mark]

A Independent groups

☐

B Laboratory

☒

C Matched pairs

☐

D Natural

☐

E Quasi

☐

F Repeated measures

☐

1	4
---	---

Identify the experimental design used in this study. Shade **one** circle only.

[1 mark]

A Independent groups

☐

B Laboratory

☐

C Matched pairs

☐

D Natural

☐

E Quasi

☐

F Repeated measures

☒

Turn over ►



1 5

Identify the operationalised dependent variable in this study.

[2 marks]

*The number of words correctly recalled from Word list A (Condition 1)
and Word list B (Condition 2).*

1 6

In order to produce the two word lists, a set of 50 words was identified. These were allocated to two word lists of equal length by a process of randomisation.

Explain how randomisation could be used to produce **Word list A** and **Word list B**.

[3 marks]

*Write each of the 50 words on a separate, identical slip of paper, fold
them and place them all in a container such as a hat.*

*Without looking, draw out one slip at a time, allocating the first word
drawn to Word list A, the next to Word list B, and so on, alternating
between the two lists.*

Continue until all 50 slips have been drawn, giving two lists of 25 words

Extra space *each.*



1 7

Explain the benefit of using randomisation to produce the word lists for this study.

[2 marks]

It removes investigator bias: the researcher has no control over which words go into which list, so they cannot, consciously or unconsciously, make one list easier to recall than the other, e.g. by putting all the short or familiar words in Word list A. Any difference in recall is then more likely to be due to location.

1 8

The 50 words used to make **Word list A** and **Word list B** were not standardised in any way.

Explain how the words that were used to make the two lists should be matched in order to improve the study.

[2 marks]

All 50 words should be standardised so they are of equal difficulty, e.g. same number of syllables and letters, the same word type (e.g. all concrete nouns) and equally familiar. Each word in list A should then have a matched word in list B, so the lists are equally difficult.

Extra space

Turn over for the next question

Turn over ►



The results of the study are given in **Table 2** below.

Table 2 Mean number of words recalled in the two conditions and the standard deviation for both conditions

	Condition 1 (same location)	Condition 2 (different locations)
Mean number of words recalled	19.3	14.6
Standard deviation	2.43	2.41

1 9

What conclusions might be drawn from the data in **Table 2**? Refer to the means and standard deviations in your answer.

[4 marks]

Memory improves when the locations of learning and recall are the same, as the mean number of words recalled was higher in Condition 1 (19.3) than in Condition 2 (14.6). The location may act as a retrieval cue, aiding recall (context-dependent forgetting).

The spread of scores around the mean was consistent in both conditions, as the standard deviations were extremely similar (2.43 vs 2.41), so participants varied by a similar amount and neither condition had more variable performance.

Extra space



2 0

Initially, the researcher had calculated the ranges for both conditions. However, one participant in **Condition 1** had remembered all of the words when recalling **Word list A**.

Given the information above, explain why it was more appropriate to use the standard deviation rather than the range.

[3 marks]

The range only uses the highest and lowest scores, so it is easily distorted by an extreme score, such as the participant in Condition 1 who recalled all 25 words. This would make the range in Condition 1 unrepresentatively large.

The SD uses every score and measures how far each score is from the mean, so it is less distorted by one anomalous score, making the

Extra space *comparison of spread between the conditions more accurate.*

2 1

Name an appropriate graph that could be used to display the means shown in **Table 2**.

Suggest appropriate X and Y axis labels for your choice of graph.

[3 marks]

Name of graph: *Bar chart*

X axis *Location condition: same location (Condition 1) and different locations (Condition 2)*

Y axis: *Mean number of words correctly recalled (out of 25)*

Extra space

Turn over ►

2 2

The participants all gave their consent before taking part in the study.

Identify **one other** ethical issue that should have been addressed in this study.
Explain why it should have been addressed and how it could have been dealt with.

[3 marks]

*Right to withdraw: participants should know they can leave the study at
any time and withdraw their data.*

*This is important as they may become stressed or embarrassed if they
recall few words, and should not feel pressured to continue.*

*The researcher should tell them about this right in the briefing before
the study, remind them during it, and in the debrief offer to destroy
their data if they wish.*

Extra space

24**END OF QUESTIONS****Copyright information**

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2 0



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