

NAME:

Answer **all** questions.

MARK:

/ 54

%

Grade:

SECTION A – Sleep and Dreaming

Answer **all** questions in this section.

1. (a) Identify an example of an exogenous zeitgeber.

- A an endogenous pacemaker
- B light
- C pineal gland
- D sleep

Your answer

B

[1]

- (b) Identify a stage of sleep.

- A Rapid Eye Motion
- B Rapid Eye Movement
- C Real Eye Motion
- D Real Eye Movement

Your answer

B

[1]

- (c) Identify a neurochemical associated with the regulation of sleep.

- A dopamine
- B melatonin
- C oestrogen
- D testosterone

Your answer

B

[1]

2. Using ten participants, researchers measured the amount of time (in minutes) spent in Stage 1 of the sleep cycle.

The following data was collected.

10.0 9.5 8.2 10.7 10.3 9.6 7.5 10.2 9.9 10.1

Calculate the range for this set of data. Show your working.

Need
more
help?

Check out
page 194
of your
textbook

1 mark for workings: $10.7 - 7.5 (+1)$ (✓)

1 mark for answer: 3.2 (✓)

Marker's Comments –
Question 2

Must have working to
get 2 marks.

Range = [2]

3.

Alastair was recently involved in a car accident. During the crash he hit his head hard on the steering wheel. Following the incident, he has been unable to sleep properly.

Need more help?

Check out page 150 of your textbook

Using the information above, explain why Alastair finds it difficult to sleep.

Alastair may find it difficult sleep because of brain damage to the hypothalamus (1) this part of the brain regulates sleeping and wakefulness and if it is damaged it would explain why Alastair finds it hard to sleep (1)

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Marker's Comments – Question 3

1 mark for knowledge of an area of the brain which is involved in the function of sleep (SCN/hypothalamus, pineal gland). [2]

1 mark for applying the knowledge to the case of Alistair

4.

(a) Identify a strength of Freud's (1918) dream analysis study of the Wolfman

Need more help?

Check out pages 156-157 of your textbook

Examples of a 1 mark answer:

- detailed information was gained
- in depth data was obtained
- an insight was provided into a unique case
- allows the opportunity to conduct research which would otherwise be impractical

[1]

Marker's Comments – Question 4 (a)

The response must refer to a strength related to the method/ research

(b) Freudian theory gives one explanation of dreams. Outline the role of repression in dreaming.

- To push things into the unconscious (1) to resolve any immediate emotional conflicts (1).
- To put things out of conscious awareness (1) to protect the person from psychological harm (1).

Need more help?

Check out pages 153 of your textbook

Marker's Comments – Question 4(b)

Must define repression using other words & explain its role

(c) Explain why subjectivity can be considered a problem with Freud's theory.

1 mark for analysing the problem of subjectivity, e.g.

- open to bias/interpretation (1)
- more opinion than fact (1) etc.

1 mark for making a judgement on the problem of subjectivity by relating this to the Freudian theory of dreams, e.g. [2]

- because a lot of the theory makes reference to the unconscious which cannot be observed (1)
- this means that many ideas are open to interpretation (1)
- it is not a very objective theory (1)
- because dreams can be interpreted in a number of different ways depending on how you decide to approach them (1)

Need more help?

Check out pages 156-157 of your textbook

5. Describe the Activation Synthesis theory of dreaming.

Need more help?

Check out pages 158-159 of your textbook

The Activation Synthesis Theory suggests that dreams occur when the mind tries to make sense (**synthesis**) of the **brain activity** happening during sleep (**activation**). (1)

They believe that dreams have **no real meaning**. (1)

Signals come from **pons** in the **brainstem** and from the **neurons** that move the eyes, this activates the **limbic system** and travels to the **occipital lobe**. (1)

These spikes send a surge of stimulation through the brain that activates the **cerebral cortex** & the higher brain tries to give meaning to what is happening. (1)

The effort to give these sudden signals meaning is what leads us to dream. The brain draws upon its memories to provide synthesis (a meaning that makes sense). (1)

For example, the spikes might be similar to those produced whilst running – when sleeping a person might synthesise those signals and dream of running. (1)

Marker's Comments –
Question 5

Level 3 (5–6 marks):

There is a thorough description of two or more concepts. This should be done with accuracy and clarity. There should be evidence of coherency throughout the description, which either links concepts or ideas within a concept.

Level 2 (3–4 marks):

There is a good description of one or more concepts. This should be done with some accuracy. There should be some evidence of coherency within the description, which either links concepts or ideas within a concept.

Level 1 (1–2 marks):

There is a basic reference to one or more concepts. Description may be more common sense than technical.

0 marks: No credit worthy response.

[6]

6. Evaluate the Activation Synthesis theory of dreaming by outlining TWO limitations in the way it explains sleep and dreaming.

Need more help?

Check out pages 159 of your textbook

The theory is too reductionist as critics say it is wrong to reduce dreaming down to simple neuronal processes (2)

For example, dreams are highly complex and bizarre, and packed full of meaning and this theory explains dreams too simplistically (1)

For example,

There is evidence that dreams occur in non-REM stages of sleep, even if it is reduced and not as vivid (1)

Our ability to recall dreams in REM sleep better may be because we are more likely to wake from this state (1)

(b)

There is evidence that there is some continuity in people's dreams, which challenges this theory as it goes against the ideas of the randomness of dreams (1)

For example, some people have recurring dreams, dreams with similar themes or pick up dreams after wake and falling back asleep (1)

For example,

Marker's Comments –
Question 6

One mark for stating why the theory is limited (using correct technical language).

One mark for explaining this limitation and/or giving an example.

[2]

7.

Sleepless Nights

Caitlin is a teenager who finds it difficult to sleep at night and thinks she may be suffering from insomnia. Her father recently read an article on sleep and believes that changing her environment and her routines could help her to get a good night's sleep.

Using your knowledge of treating sleep disorders, explain what advice you would give to Caitlin to help her to increase her chances of getting a good night's sleep.

Need more help?

Check out pages 163-164 of your textbook

Credit understanding and application of one or more ideas used to improve sleep/reduce insomnia, such as, **relaxation techniques, changes to physical environment (taking out electronic equipment, temperature, light), improved diet/exercise, etc.**

For example:

Firstly, Caitlin could 'clean up' her sleep environment (where she sleeps) by making sure that her room is dark, quiet and at a comfortable temperature. (1) Her bedding should be comfortable and she should ensure that any smart phones, computers etc. are off. (1) She should also refrain from using these at least an hour before she plans to sleep (1) as well as avoiding eating large meals just before bedtime and reducing her intake of caffeine. (1)

Caitlin could also use relaxation techniques where she clears her mind (she could write down her worries or imagine them flying away) (1) and engages in deep breathing exercises where she inhales through her nose for 4 seconds, holds for 7 seconds and exhales for 8 seconds. (1)

Marker's Comments – Question 7

Level 3 (5–6 marks):

There is a thorough explanation of at least one idea. This should be done with accuracy and clarity and clearly apply to the source. There should be evidence of coherency throughout the explanation.

Level 2 (3–4 marks):

There is a good description of at least one idea relevant to the source. This should be done with some accuracy. There should be some evidence of coherency within the description.

Level 1 (1–2 marks):

There is a basic description of at least one idea. Description may be more common sense than technical.

(0 marks):

No credit worthy response.

[6]

8. Using an example, explain what is meant by an exogenous zeitgeber.

Need more help?

Check out page 150 of your textbook

An exogenous zeitgeber is a feature of the environment (physical or social) (1) that help to manage bodily rhythms (1)

An example of this is the light in a bedroom, if the light is turned off and on at similar times every night it will support the bodily rhythms that support sleep (1)

Marker's Comments – Question 8

One mark for defining the term.

One mark for explaining its function.

One mark for giving an example.

[3]

9. Williams et al.'s **study into the Activation Synthesis Theory of Dreaming** aimed to assess the bizarreness in dreams and fantasies.

Need more help?

Check out pages 159-162 of your textbook

Outline the two ratings scales used for categorizing dreams in the study.

A scale measuring the locus of the bizarre item (1)

A scale measuring the type of bizarreness (1)

[2]

- (b) According to the results, what differences were found between reports of dreams and fantasies.

Dreams had a higher bizarreness density (0.223) (1) than fantasies (0.089). (1)

Dreams always involved more than one character (1) whereas fantasies involved the first person in 4/12 cases (1)

Dreams contain more bizarreness (1) and other 'dreamy' features (e.g. remoteness of time) (1) than fantasies. [2]

10. Freud's **study** using the **dream analysis of the Wolfman** developed his theory of dreams as he aimed to explain and treat Wolfman's psychological problems. However, the study was limited.

- (a) Explain how the sample size was limited in this study.

Need more help?

Check out page 157 of your textbook

The sample size was too small to make generalisations as it was only one man (1)
Hence it is not reliable enough to base a theory of dreams which applies to all on one case study (ignores individuals differences) (1)

[2]

Explain how the study is seen as being too subjective.

1 mark for analysing the problem of subjectivity, e.g.

- open to bias/interpretation (1), more opinion than fact (1) etc.

1 mark for making a judgement on the problem of subjectivity by relating this to the Freudian theory of dreams, e.g. [2]

- because a lot of the theory makes reference to the unconscious which cannot be observed (1)
- this means that many ideas are open to interpretation (1)
- because dreams can be interpreted in a number of different ways depending on how you decide to approach them (1)

11. Describe and evaluate the Freud's Theory of Dreaming.

Marker's Comments –

Question 12(a)

Level 3 (4 marks):

There is a thorough description of four or more concepts. This should be done with accuracy and clarity. There should be evidence of coherency throughout the description, which either links concepts or ideas within a concept.

Level 2 (3 marks):

There is a good description of three or more concepts. This should be done with some accuracy. There should be some evidence of coherency within the description, which either links concepts or ideas within a concept.

Level 1 (1–2 marks):

There is a basic reference to one or more concepts. Description may be more common sense than technical.

0 marks: No credit worthy response.

[4 marks]

(a) Describe the theory (make four points)

Need more help?

Check out pages 152-154 of your textbook

Freud's Theory of Dreaming argues that we could understand what is happening in someone's **unconscious mind** (the part of the mind that people are not aware of but holds thoughts and memories) by analysing their dreams. (1)

This is because he believed that dreams were **repressed** urges from the unconscious mind being released. (1)

He saw this as **wish-fulfilment** of people's deepest desires that couldn't be fulfilled in real life. (1)

Freud argued that dreams are rarely attempts to directly act out a wish, rather they are made up of **manifest content** (the actual content of the dream) and **latent content** (the underlying meaning of the dream). (1)

For example, a person dreaming of falling through the air (manifest content) may be feeling that they are losing control of an aspect of their life (latent content). (1)

(b) Evaluate the theory (two criticisms)

Need more help?

Check out page 154 of your textbook

Criticism/limitations (make up 6 marks)

Freud's theory is limited as it is too subjective (1); dream interpretation is open to opinion and we cannot just assume that Freud's own interpretation is more valid than interpretations from anyone else (1).

Freud's theory is based on his concept of the unconscious mind, which is an abstract concept and cannot be observed and tested (1). Thus, there is no hard evidence to suggest that dreams actually do represent the unconscious mind. (1)

Freud's theory is based on unreliable research (1), as the evidence is mainly from case studies and so making generalisations about the meaning of dreams for all may not be fair. (1)

Freud's theory is based upon a narrow interpretation of dreams by only relating them to wish fulfilment. (1) Critics suggest that dreams can represent many aspects of our lives and it is hard to accept that nightmares are linked to wish fulfilment. (1)

Marker's Comments – Question 12(b)

One mark for stating why the theory is limited (using correct technical language). One mark for explaining this limitation and/or giving an example. **Up to four marks.**

[4 marks]

SECTION B – Research Methods

Answer **all** questions in this section

Jacob is carrying out psychological research into the role of rehearsal in memory. He goes to a local café and asks the first 14 people he meets to be participants in his study. He gives his participants a word list to learn and later recall. Half of his participants are allowed to rehearse the word list before recall and the other half of participants are not allowed to rehearse the word list before recall. The participants sit together in a café to recall the word list.

12. What is the independent variable (IV) and dependent variable (DV) in Jacob's study?

Need more help?

Check out page 172 of your textbook

IV: ... **Rehearsal/ no rehearsal**
DV: ... **No. of words recalled**

Marker's Comments – Question 12

Allow rehearsal for IV and recall for DV

13. (a) What is one extraneous variable that could influence Jacob's study?

... **Noise from the café; people in the café; participants being in a rush.** [1]

(b) How could Jacob control for extraneous variables in his study?

Need more help?

Check out pages 172-173 of your textbook

... **He could control for this by ensuring there is no noise in the café or all participants had headphones in with the same noise level, same music.**

Marker's Comments – Question 13

(a) Allow any appropriate extraneous variable
(b) 1 mark for a way to control the EV
1 mark for how this could be done
Must refer to/give an example of a control

14. (a) What is the sampling method used in Jacob's study?

... **Opportunity sample**

(b) What is a weakness of the sampling method that Jacob used in his study?

Need more help?

Check out pages 176-178 of your textbook

... **The sample may not be representative of wider target population (1), as it may be bias to only people who like this particular coffee shop meaning that the findings will lack population validity and thus cannot be generalised to wider populations. (1)**

Marker's Comments – Question 14 (b)

1 mark for a weakness of opportunity sampling
1 mark for explaining why this is a weakness in this particular study
Must relate to the study to achieve 2 marks

15. The results for participants who were allowed to rehearse were: 15, 11, 10, 13, 18, 19, 14.

Need more help?

Check out page 194 of your textbook

What is the median recall for the participants who were allowed to rehearse?

Show your working.

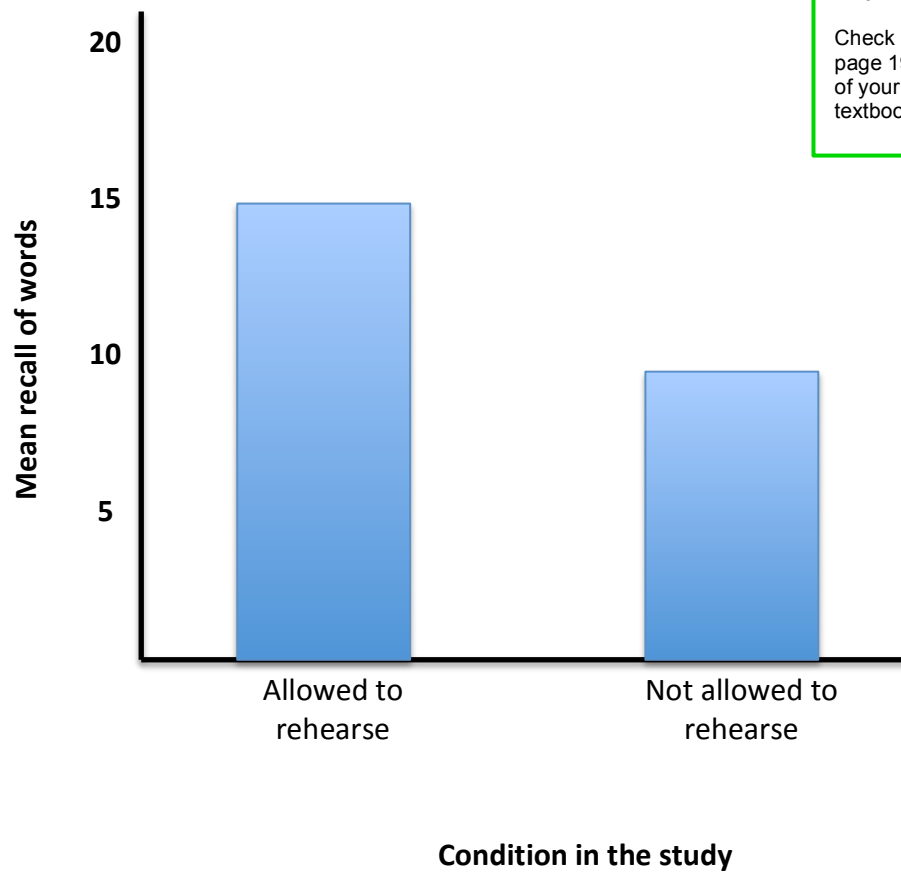
10, 11, 13, **14**, 15, 18, 19

= **14** [2]

Marker's Comments – Question 15

Must show working to achieve 2 marks

16. The mean recall for those who were allowed to rehearse was 15 words. The mean recall for those who were not allowed to rehearse was 10 words. Draw a bar chart to show the mean recall for the two conditions in Jacob's study.



Need more help?

Check out page 198 of your textbook

Marker's Comments – Question 16

Must be neat and accurate and include features below to achieve 5 marks

Y-axis labeled [1]

X-axis labeled [1]

Title for the graph [1]

Both means plotted correctly [1]

Bars not touching & drawn accurately [1]

[5]