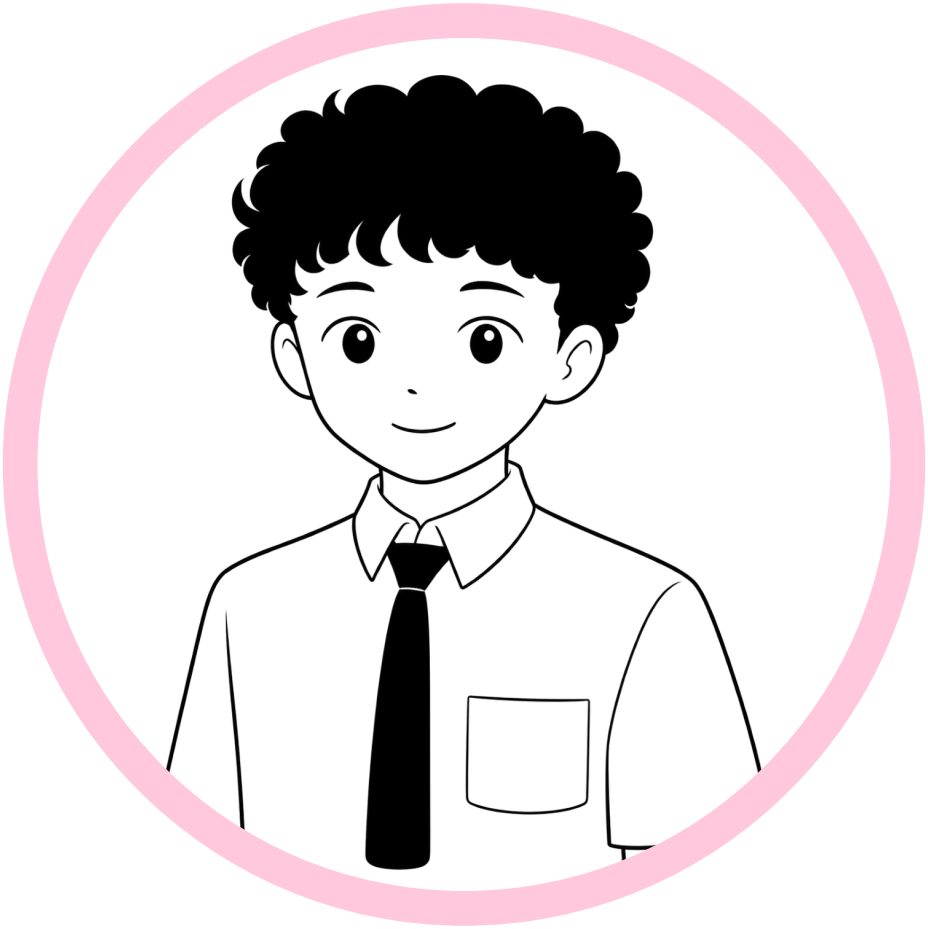
AQA A-LEVEL PSYCHOLOGY · 7182

PSYCHOLOGY



EXAM QUESTION PACK

3.2.2 BIOLOGICAL RHYTHMS

SCORE	PERCENTAGE
/78	%

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Q1.

Julia complains that her baby is sleeping all day and keeping her awake all night.

Using your knowledge of research into exogenous zeitgebers, discuss what Julia could do to encourage her baby to sleep more at night.

(Total 8 marks)

Q2.

Julia decided to record how many hours her baby slept for in the day and in the night for one week.

The number of hours slept in the day and the number of hours slept in the night over one week

	Mon	Tues	Wed	Thur	Fri	Sat	Sun
Number of hours slept in the day	8.5	9.0	7.0	9.5	10.5	6.5	8.5
Number of hours slept in the night	9.0	8.0	8.5	7.0	7.5	10.5	8.0

(a) Calculate the mean number of hours slept in the night. Show your workings.

Give your answer to **two** significant figures.

(3)

(b) Explain **one** reason why the mean is the most appropriate measure of central tendency for this set of data.

(2)

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(Total 5 marks)

Q3.

Read the item and then answer the question that follows.

> Sam is a police officer. She has just started working the night shift and after a week, she finds that she has difficulty sleeping during the day and is becoming tense and irritable. Sam is also worried that she is less alert during the night shift itself.

Using your knowledge of endogenous pacemakers and exogenous zeitgebers, explain Sam's experiences.

(Total 4 marks)

Q4.

The human female menstrual cycle is an example of **one** type of biological rhythm; it is called a:

A circadian rhythm ⬭

B infradian rhythm ⬭

C ultradian rhythm ⬭

(Total 1 mark)

Q5.

A psychologist wanted to test the effects of biological rhythms on the ability to solve maths problems. She used random sampling to form two groups each of 20 students.

She tested one group on one set of maths problems at 3 am in the morning. The other group were tested on another set of maths problems at 3 pm in the afternoon. She found that performance of the group tested at 3 pm was significantly better than the group tested at 3 am.

When submitted for peer review the paper was rejected because of serious design problems.

Explain **one** problem with the design of this study and suggest ways of dealing with this problem.

(Total 4 marks)

Q6.

Discuss research into the disruption of biological rhythms (e.g. shift work, jet lag).

(Total 16 marks)

Q7.

Outline **one or more** examples of ultradian rhythms.

(Total 4 marks)

Q8.

Discuss the consequences of disrupting biological rhythms.

(Total 16 marks)

Q9.

Discuss the role of endogenous pacemakers in the control of **one or more** biological rhythms.

(Total 16 marks)

Q10.

Outline **one** example of a circadian rhythm.

(Total 4 marks)