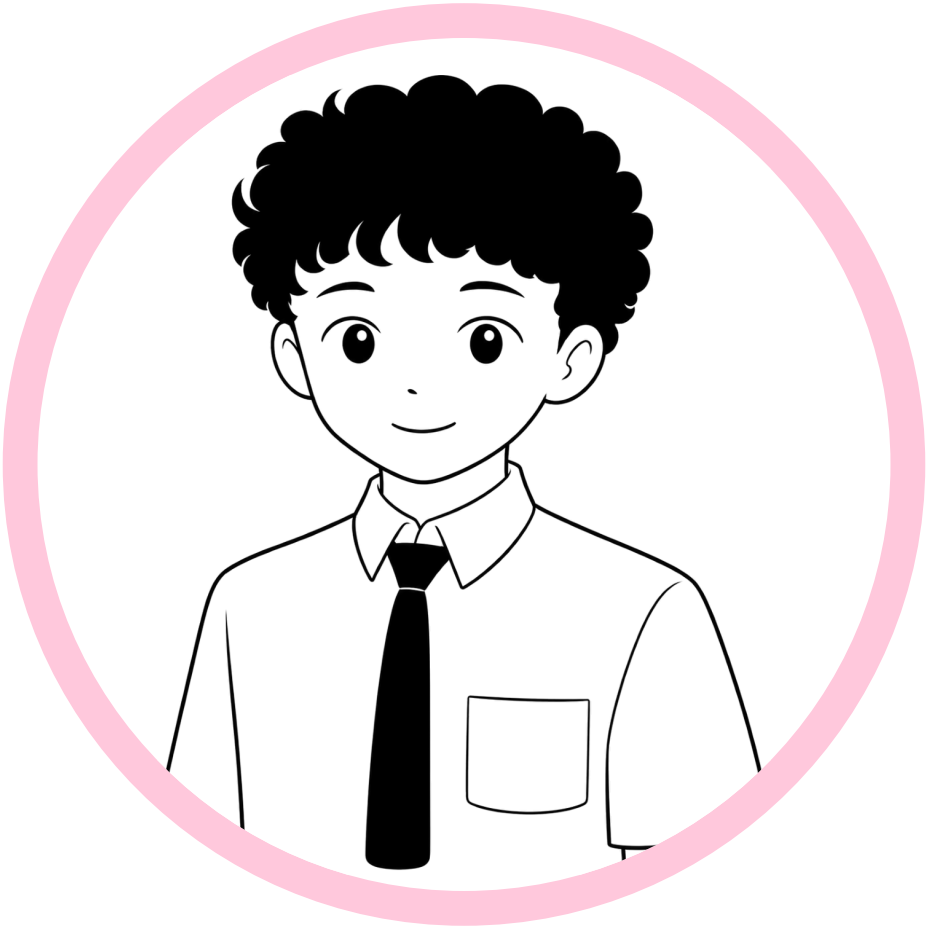
PEARSON EDEXCEL A-LEVEL PSYCHOLOGY · 9PS0

PSYCHOLOGY



EXAM QUESTION PACK

TOPIC 3: BIOLOGICAL PSYCHOLOGY

SCORE	PERCENTAGE
/112	%

STEMUP

These questions belong to Pearson Edexcel, not to us.

The examination questions and mark schemes in this pack were written and published by Pearson Edexcel. They are past assessment materials, reproduced here so that students can revise from them.

What we do not own

STEMUP is not affiliated with Pearson Edexcel and does not own, and makes no claim to own, any of the question or mark scheme material in this pack. Pearson has not endorsed, approved or been involved in the production of it. Pearson, Edexcel and the qualification titles used here belong to their respective owners and appear for identification only.

Where to find the originals

Pearson publishes its past papers and mark schemes free of charge. Always check the current specification at qualifications.pearson.com before you revise, because content and wording can change between series.

If you hold the rights to any material in this pack and would like it amended or removed, contact admin@stemup.co.uk and we will act on it.

Q1.

Oscar investigated whether there was a relationship between attitudes to recreational drug use and parts of the personality (id, ego and superego) according to Freud.

Participants completed a personality questionnaire to determine how strongly they were dominated by the 'id'. The questionnaire was scored out of 10, with 10 being strongly dominated by the 'id'.

They also completed a questionnaire about how they felt about recreational drug use in society. The questionnaire was scored out of 10, with 10 being completely in favour of recreational drug use.

(a) Complete **Table 1** and calculate the Spearman's rank correlation coefficient for Oscar's study.

(4)

Personality score	Rank 1	Attitude to recreational drug use score	Rank 2	d	d^2
2	1	3	1.5		
8	6	9	7		
5	3	6	4		
6	4.5	7	6		
9	7.5	10	8		
3	2	3	1.5		
6	4.5	6	4		
9	7.5	6	4		
				Total:	

Table 1

SPACE FOR CALCULATIONS

Spearman's rank correlation coefficient .....

(b) Using the critical values table for Spearman's rank, determine the lowest level of significance Oscar could use for his results to be significant for a directional (one-tailed) hypothesis.

(2)

.....

.....

.....

.....

.....

.....

(Total for question = 6 marks)

Q2.

Compare the biological explanation of aggression with Freud's psychodynamic explanation of aggression.

(2)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(Total for question = 2 marks)

Q3.

Assess how both biological and psychodynamic theories have been used to explain aggression.

(Total for question = 8 marks)

Q4.

In your studies of biological psychology, you will have learned about **one** adoption study.

Explain **one** strength and **one** weakness of your chosen adoption study.

(4)

Chosen study

.....

Strength

.....

.....

.....

.....

.....

.....

Weakness

.....

.....

.....

.....

.....

.....

(Total for question = 4 marks)

Q5.

During the course you will have learned about the classic study by Raine et al. (1997).

Evaluate the classic study by Raine et al. (1997).

(8)

(Total for question = 8 marks)

Q6.

Lauren is a Psychology student at university. For her research project, Lauren wants to investigate whether aggression could be related to hunger. She has permission from her tutor to conduct her investigation on the university campus.

Describe how Lauren could use a correlational research method to investigate whether aggression could be related to hunger.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(4)

(Total for question = 4 marks)

Q7.

Rafiq carried out a correlational study to investigate whether there was a relationship between age and number of hours of sleep per night.

(a) Complete **Table 2** and calculate the Spearman's rank correlation coefficient for Rafiq's study.

(4)

Age	Rank 1	Number of hours sleep	Rank 2	d	d^2
17	2.5	10	6		
17	2.5	11	7		
20	4	6	2.5		
24	6	7	4		
21	5	4	1		
16	1	9	5		
40	7	6	2.5		
				Total:	

Table 2

Spearman's rank correlation coefficient .....

(b) Rafiq used a non-directional (two-tailed) hypothesis.

Explain whether Rafiq's data were significant at p

(2)

.....

.....

.....

.....

.....

.....

(Total for question = 6 marks)

Q8.

Tabitha wanted to investigate whether there is a difference in brain activity when people are exposed to aggressive stimuli and non-aggressive stimuli. She decided to gather a sample of female participants aged between 20 years old and 30 years old.

(a) Describe how Tabitha could use a volunteer sampling technique to gather participants for her investigation.

(2)

.....

.....

.....

.....

.....

.....

(b) Tabitha decides to use a PET brain-scanning technique for her investigation.

Describe how Tabitha could use a PET brain-scanning technique for her investigation.

(3)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(c) Explain **one** strength of Tabitha using a PET brain-scanning technique for her investigation.

(2)

.....

.....

.....

.....

.....

.....

(d) Explain **one** improvement that could be made to Tabitha's choice of participants.

(2)

.....

.....

.....

.....

.....

.....

(Total for question = 9 marks)

Q9.

Twin studies are used as a research method to investigate human behaviour in biological psychology.

Evaluate **one** twin study you have covered in biological psychology.

(Total for question = 8 marks)

Q10.

Evaluate Freud's psychodynamic explanation of aggression.

(8)

(Total for question = 8 marks)

Q11.

Matt is 16 years old and has been getting into fights when he goes out with his friends. His mother blames his friends, however Matt denies this and says he cannot control his own behaviour.

Evaluate how far social and biological psychology can explain Matt's behaviour. You must make reference to the context in your answer.

(Total for question = 12 marks)

Q12.

Discuss the key question you have studied from biological psychology.

(Total for question = 8 marks)

Q13.

Jinal wants to find out about recreational drug use and early childhood experiences. She has decided to focus on nicotine as the recreational drug.

She intends to see how often people use nicotine and find out about any negative life experiences they had experienced during early childhood.

Jinal believes that the more negative life experiences a person has, the more nicotine they will use.

Discuss how Jinal could use a correlational research method for her investigation.

You must make reference to the context in your answer.

(8)

(Total for question = 8 marks)

Q14.

Nadiya and Tamal are analysing data they have gathered about students' exam scores and the number of missed classes.

Table 3 shows the raw data from Nadiya and Tamal's study.

Exam score	Number of missed classes
70	8
80	6
40	18
20	20
95	3
100	4
50	14
65	10
65	12
55	12

Table 3

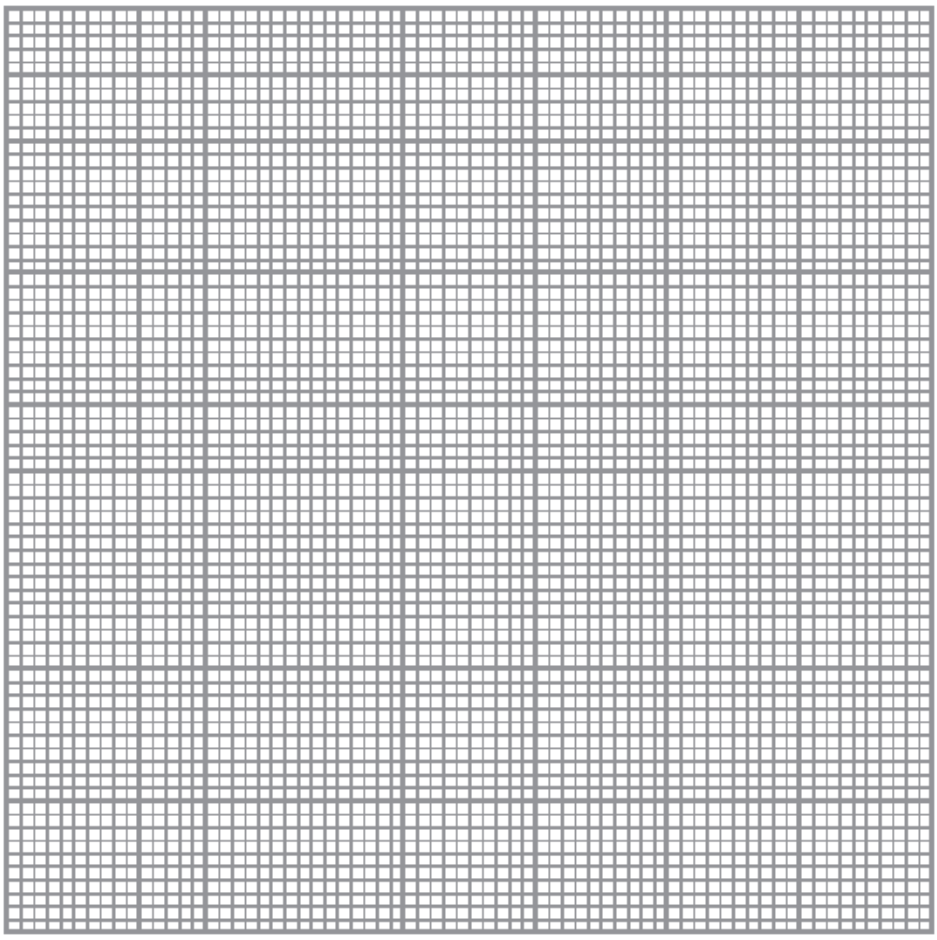
(a) Draw a scatter diagram to show Nadiya and Tamal's data.

(3)

Title

.....

.....



(b) Identify the type of correlation displayed in the diagram you have drawn.

(1)

.....

Nadiya and Tamal used Spearman's rho to analyse their data.

(c) State **two** reasons why they used Spearman's rho.

(2)

1 .....

.....

2 .....

.....

(Total for question = 6 marks)

Q15.

Val was conducting research into aggression. She asked seven participants to rate their own aggression on a scale of 1–9 and then asked the best friend of each participant to give a peer rating of their friend's aggression level using the same scale.

Table 4 shows the data from the investigation.

Complete the table and calculate Spearman's rank correlation coefficient between self-rated aggression and peer-rated aggression.

Self-rated aggression	Rank 1	Peer-rated aggression	Rank 2	d	d^2
2	6.5	3	6		
2	6.5	6	4		
4	5	2	7		
5	4	5	5		
8	3	7	3		
9	1.5	8	2		
9	1.5	9	1		
				Total:	

Table 4

Spearman's rank correlation coefficient

.....

(Total for question = 4 marks)

Q16.

Charles is 14 years old and has been displaying aggressive behaviour.

Recently he has shouted insults at other students and broken classroom equipment in his science lessons. Charles has also been in a fight with the football captain after Charles let in an important goal during the last match of the season.

Describe how hormones could account for Charles's behaviour.

(3)

.....

.....

.....

.....

.....

.....

.....

.....

.....

(Total for question = 3 marks)

Q17.

Rachael is in prison for assault. She has a history of aggressive behaviour such as fighting and shouting abuse at people.

Rachael was exercising with a group of other prisoners, but has been placed in solitary confinement for pushing over another prisoner who had tried to take her trainers.

She told a prison officer that she often feels very stressed and angry with other people, but is unable to manage her aggression.

Discuss the role of hormones as an explanation of Rachael's behaviour.

(8)

(Total for question = 8 marks)