Mark Scheme (Results)

Summer 2018

Pearson Edexcel GCE
In Psychology (9PS0)
PAPER 1: Foundations in Psychology

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.

- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.

- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.

- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.

- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.

- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

SECTION A
SOCIAL PSYCHOLOGY

Question Number	Answer	Mark
1	**AO1 (3 marks)** Up to **three** marks for relevant description of Milgram's variation 10. For example; • The experiment was relocated from Yale University to a small commercial office in Bridgeport (1). Participants were told that the research was being undertaken by a private company (Research Associates of Bridgeport). (1) The experiments were conducted in a three-room office suite in a run-down commercial building which was sparsely furnished (1). **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
2a	**AO2 (2 marks)** **One** mark for a suitable open question. **One** mark for a suitable closed question. For example; Open question • What do you think about students from other colleges? (1) Closed question • I enjoy meeting people from other colleges- SA, A, DK, D, SD (1) **Look for other reasonable marking points.** **Answers must relate to the scenario.** **Generic answers score 0 marks.**	**(2)**

Question Number	Answer	Mark
2b	**AO2 (2 marks)** **One** mark for each relevant suggestion why Tim and Laura should undertake a pilot study. For example: **Reason 1** • In order to test the questions for clarity to check whether the students understand them. **Reason 2** • To check whether the sampling method/technique gathers a representative sample of the college students. **Look for other reasonable marking points.** **Answers must relate to the scenario.** **Generic answers score 0 marks.**	**(2)**

Question Number	Answer	Mark
3	**AO1 (1 mark), AO3 (1 mark)** **One** mark for identification of a strength (AO1) **One** mark for justification of the strength (AO3) For example: • Several data collection methods were used, such as participant observations, tape recordings and the bean experiment (1). The findings from each method were compared to increase the internal validity of the findings about hostility between the boys (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Indicative content	Mark
4	**AO1 (4 marks), AO3 (4 marks)** **AO1** • Personality refers to a set of traits which remain stable over time. • The authoritarian personality could be characterised by demonstrating obedience to a legitimate authority figure or by suppressing those who are considered inferior. • Individuals develop a sense of gender identity (masculinity and femininity) through socialisation. • Gender stereotypes affect how we perceive ourselves and others, such as women being perceived to be more obedient. **AO3** • Elms and Milgram (1966) found that fully obedient individuals scored higher on the F-Scale measuring authoritarianism compared to defiant participants. • When measuring personality using self-report data there could be arguments that the questionnaires are invalid measures of personality. • Kilham and Mann (1974) replicated Milgram's original study and found that females were less obedient than the male participants (16% compared to 40%) • Burger (2009) found gender differences are minimal therefore supporting Milgram's original research that gender is less of a factor in obedience than others such as culture. **Look for other reasonable marking points.**	**(8)**

Level	Mark	Descriptor
		AO1 (4 marks), AO3 (4 marks) **Candidates must demonstrate an equal emphasis between Knowledge and understanding vs assessment/conclusion in their answer.**
Level 0	0	No rewardable material
Level 1	1–2 marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Generic assertions may be presented. Limited attempt to address the question. (AO3)
Level 2	3–4 marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a generic or superficial assessment being presented. (AO3)
Level 3	5–6 marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning. Leading to an assessment being presented which considers a range of factors. Candidates will demonstrate understanding of competing arguments/factors but unlikely to grasp their significance. The assessment leads to a judgement but this may be imbalanced. (AO3)
Level 4	7–8 marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical assessment, containing logical chains of reasoning throughout. Demonstrates an awareness of the significance of competing arguments/factors leading to a balanced judgement being presented. (AO3)

SECTION B
COGNITIVE PSYCHOLOGY

Question Number	Answer	Mark
5a	**AO2 (1 mark)** **One** mark for the correct calculation of both mean scores to one decimal place. <table><tr><td>Number of words correctly retrieved (out of 20) by mathematics students</td><td>Number of words correctly retrieved (out of 20) by geography students</td></tr><tr><td>11.6</td><td>8.5</td></tr></table> **Reject all other answers**	(1)

Question Number	Answer	Mark
5b	**AO2 (2 marks)** Up to **two** marks for appropriate choice of test and reasoning. For example; • Mr Robinson would have used a Mann Whitney test to analyse his data (1) as he used an independent groups design with an interference task and without interference task (1). **Look for other reasonable marking points.** **Answers must relate to the scenario.** **Generic answers score 0 marks.**	(2)

Question Number	Answer	Mark
5c	**AO2 (1 mark), AO3 (1 mark)** **One** mark for identification of a strength (AO2) **One** mark for justification of the strength (AO3) For example; • Mr Robinson does not need to personally interpret the numerical data regarding the number of words recalled (1) which means his analysis will be more objective as he cannot interpret the mean number of words differently to other researchers (1). **Look for other reasonable marking points.** **Answers must relate to the scenario.** **Generic answers score 0 marks.**	(2)

Question Number	Answer	Mark
6	**AO2 (4 marks)** Up to **four** marks for relevant suggestions using Schema theory. For example; • Schema theory states that recall of the robbery will be influenced by previous knowledge, experiences, expectations and stereotypes (1). Mo's schema for a robbery could include information he had seen in films, which he may incorporate into the event (1). Akeem may fill in gaps with information that makes sense to him when recalling the theft (1) from his own prior experience of having a bag stolen (1). **Look for other reasonable marking points.** **Answers must relate to the scenario.** **Generic answers score 0 marks.**	(4)

Question Number	Indicative content	Mark
7	**AO1 (4 marks), AO3 (4 marks)**	**(8)**
	AO1	
	• Working memory assumes there are different systems rather than a unitary system for memory.	
	• The visuo-spatial sketchpad deals with visual and spatial information.	
	• In 2001 the episodic buffer was added to the model by Baddeley.	
	• The phonological loop consists of the phonological store and the articulatory control loop that holds sound information.	
	AO3	
	• The KF case study supports the Working Memory Model. KF's impairment was mainly for verbal information while his memory for visual information was largely unaffected.	
	• Smith and Jonides (1997) showed differences in brain activation with PET scans during visual and spatial tasks, which supports the visuo-spatial sketchpad not being one store.	
	• By adding to the model later it could be suggested that the original model proposed in 1974 was incomplete and so it may still lack accuracy.	
	• Robbins (1996) found that using chess players that it was the central executive not the phonological loop that played a role in remembering chess positions.	
	Look for other reasonable marking points.	

Level	Mark	Descriptor
		AO1 (4 marks), AO3 (4 marks) **Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation/conclusion in their answer.**
	0	No rewardable material.
Level 1	1-2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) A conclusion may be presented, but will be generic and the supporting evidence will be limited. Limited attempt to address the question. (AO3)
Level 2	3-4 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a superficial conclusion being made. (AO3)
Level 3	5-6 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning leading to a conclusion being presented. Candidates will demonstrate a grasp of competing arguments but evaluation may be imbalanced. (AO3)
Level 4	7-8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical evaluation, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments, presenting a balanced conclusion. (AO3)

SECTION C
BIOLOGICAL PSYCHOLOGY

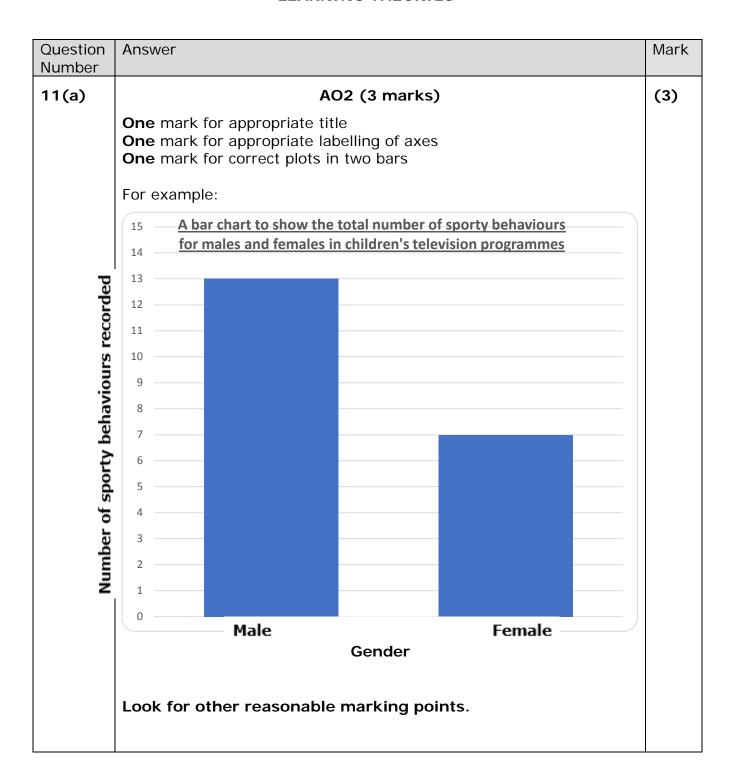| Question Number	Answer	Mark
8	**AO1 (3 marks)** Up to **three** marks for description of synaptic transmission. For example: • An electrical impulse travels along the pre-synaptic neuron (1). The impulse reaches the synaptic vesicles to release a neurotransmitter (1). These diffuse across the synaptic gap and attach receptors (1). **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
9(a)	**AO2 (4 marks)**	**(4)**

Age	Rank 1	Number of hours sleep	Rank 2	d	d^2
17	2.5	10	6	**-3.5**	**12.25**
17	2.5	11	7	**-4.5**	**20.25**
20	4	6	2.5	**1.5**	**2.25**
24	6	7	4	**2**	**4**
21	5	4	1	**4**	**16**
16	1	9	5	**-4**	**16**
40	7	6	2.5	**4.5**	**20.25**
				Total:	**91**

One mark for calculating column d

One mark for calculating column d^2

One mark for substituting into equation
$1 - \frac{6 \times 91}{7 \times (49-1)}$

One mark for calculating Spearman's rank correlation coefficient **-0.625**

Question Number	Answer	Mark
9 (b)	**AO2 (1 mark), AO3 (1 mark)** **One** mark for identifying the correct critical value (AO2) **One** mark for accurate judgement of relationship (AO3) For example: • The critical value is (0.786) at 0.05 for a two-tailed test when n=7 which more than the calculated value (of 0.625) (1) so there is no significant relationship between age and number of hours of sleep and the null hypothesis should be accepted (1). **Look for other reasonable marking points.** **Answers must relate to the scenario.**	**(2)**

Question Number	Indicative content	Mark
10	**AO1 (4 marks), AO2 (4 marks)** For example: Key question: How effective is drug therapy for treating addiction? **AO1** - Addiction to drugs costs society in terms of crime and NHS costs so needs to be treated. - Methadone is a replacement drug that reduces cravings for heroin so could stop addicts offending for access to heroin. - Methadone reduction programmes can discourage abstinence from the heroin so cost society more in economic and social costs. - Heroin changes the brain and body so any treatment needs to also have a biological basis. **AO2** - Repeated exposure to recreational drugs can lead to tolerance and withdrawal symptoms which continues drug use and can lead to social and economic costs so needs to be treated. - Methadone mimics the action of heroin at the synaptic level through dopamine and endorphins. - Reduction of the methadone doses means the user will experience withdrawal symptoms such as cramps and vomiting so can lead to relapse. - Brain scanning methods such as PET could investigate the activity of methadone treatment on the brain to show if it is effective. **Look for other reasonable marking points.**	**(8)**

Level	Mark	Descriptor
		AO1 (4 marks), AO2 (4 marks) **Candidates must demonstrate an equal emphasis between knowledge and understanding vs application in their answer.**
	0	No rewardable material
Level 1	1–2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)
Level 2	3–4 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Discussion is partially developed, but is imbalanced or superficial occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)
Level 3	5–6 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning. Candidates will demonstrate a grasp of competing arguments but discussion may be imbalanced or contain superficial material supported by applying relevant evidence from the context (scientific ideas, processes, techniques and procedures (AO2)
Level 4	7–8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical balanced discussion, containing logical chains of reasoning. Demonstrates a thorough awareness of competing arguments supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). (AO2)

SECTION D
LEARNING THEORIES

Question Number	Answer	Mark
11(a)	**AO2 (3 marks)** **One** mark for appropriate title **One** mark for appropriate labelling of axes **One** mark for correct plots in two bars For example: <u>A bar chart to show the total number of sporty behaviours for males and females in children's television programmes</u> *(bar chart: y-axis "Number of sporty behaviours recorded" scaled 0–15; Male bar = 13, Female bar = 7; x-axis "Gender")* **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
11b	**AO2 (1 mark), AO3 (1 mark)** **One** mark for identification of an appropriate conclusion (AO2) **One** mark for justification of the conclusion (AO3) For example: • Mandeep and Priya could conclude that stereotypes of male and female characteristics were reinforced in both television programmes (1), which is shown by males being presented as more sporty, less emotional and stronger than females (1). **Look for other reasonable marking points.** **Answers must relate to the scenario.** **Generic answers score 0 marks.**	**(2)**

Question Number	Answer	Mark
11c	**AO2 (1 mark), AO3 (1 mark)** **One** mark for identification of a methodological issue (AO2) **One** mark for justification of the methodological issue (AO3) For example; • Mandeep and Priya only investigated two children's programmes which may be of the same genre (1) which means the findings of their investigation can only be generalised to the two programmes chosen and not all children's television programmes (1). **Look for other reasonable marking points.** **Answers must relate to the scenario.** **Generic answers score 0 marks.**	**(2)**

Question Number	Answer	Mark
12	**AO2 (4 marks)** Up to **four** marks for an appropriate explanation For example: • The unconditioned stimulus (UCS) would be the bang of the balloon and this would have caused fear which is the unconditioned response (UCR) (1). The neutral stimulus (NS) would be the clown which would have not caused a fearful response until the parties (1). The pairing of the balloon burst and the clown at several parties lead to her associating clowns and fear (1), which resulted in the conditioned stimulus (CS) of the clown causing a fear response (CR) (1). **Look for other reasonable marking points.** **Answers must relate to the scenario.** **Generic answers score 0 marks.**	**(4)**

Question Number	Indicative content	Mark
13	**AO1 (4 marks), AO3 (4 marks)** **AO1** • Observations can be non-participant where the researcher is not involved in the group being observed. • When the researcher infiltrates the group to observe their behaviour it is a participant observation. • Structured observations are when a researcher observes individuals in an environment that has been manipulated. • A covert observation can be used to investigate behaviour without the participant knowing they are being watched. **AO3** • Non-particpant observations are useful as you would be able to concentrate on recording the behaviour being displayed. • Participant observations allow the researcher to gain a more valid insight into the reasons behind the behaviour being observed which are useful for practical application. • Structured observations are less useful as there is low validity in the human behaviour seen due to the artifically constructed in the setting. • Covert observations could be seen as unethical under the BPS code of ethics as participants cannot give prior informed consent but are useful for observing natural behaviour. **Look for other reasonable marking points.**	**(8)**

Level	Mark	Descriptor
		AO1 (4 marks), AO3 (4 marks) **Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation/conclusion in their answer.**
	0	No rewardable material.
Level 1	1-2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) A conclusion may be presented, but will be generic and the supporting evidence will be limited. Limited attempt to address the question. (AO3)
Level 2	3-4 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a superficial conclusion being made. (AO3)
Level 3	5-6 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning leading to a conclusion being presented. Candidates will demonstrate a grasp of competing arguments but evaluation may be imbalanced. (AO3)
Level 4	7-8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical evaluation, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments, presenting a balanced conclusion. (AO3)

SECTION E
ISSUES AND DEBATES

Question Number	Indicative content	Mark
14	**AO1 (4 marks), AO2 (4 marks)**	**(8)**
	AO1	
	• Practical issues include trying to control research to ensure replicability to increase reliability.	
	• The use of animals or rare/limited populations to represent general theories of human learning can lead to generalisability issues.	
	• The practical issue of achieving findings that represent real life requires researchers to limit the artificiality of tasks and environments.	
	• Some methods can be expensive to undertake leading to the practical issue of cost implications for researchers.	
	AO2	
	• Within learning theories, Pavlov (1927) undertook a similar experiment numerous times with multiple dogs using controlled conditions.	
	• Raine et al. (1997) used murderers pleading NGRI in their study which represents a population who may not be representative of others.	
	• Bandura's studies of modelling took place in an artificial setting for the children who played individually behind a screen so have limited ecological validity.	
	• CT scans are cheaper than PET scans but they do not show brain activity, only brain anatomy, so the cost benefit may outweigh the usefulness of the scans.	
	Look for other reasonable marking points.	

Level	Mark	Descriptor
		AO1 (4 marks), AO2 (4 marks) **Candidates must demonstrate an equal emphasis between knowledge and understanding vs application in their answer.**
	0	No rewardable material
Level 1	1–2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)
Level 2	3–4 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Discussion is partially developed, but is imbalanced or superficial occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)
Level 3	5–6 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning. Candidates will demonstrate a grasp of competing arguments but discussion may be imbalanced or contain superficial material supported by applying relevant evidence from the context (scientific ideas, processes, techniques and procedures (AO2)
Level 4	7–8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical balanced discussion, containing logical chains of reasoning. Demonstrates a thorough awareness of competing arguments supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). (AO2)

Question Number	Indicative content	Mark
15	**AO1 (6 marks), AO3 (6 marks)**	**(12)**
	AO1	
	• Nature relates to innate characteristics such as genes, hormones, and the brain.	
	• Nurture relates to environmental factors such as drugs, disease, and diet.	
	• Psychologists are interested in the nature-nurture debate to find the source of behavioural traits in individuals.	
	• If we know if behaviour is caused by nature or nurture, we can establish suitable strategies for modifying behaviours.	
	• Social psychology explains human behaviour through the influence of groups and personality.	
	• Cognitive psychology attempts to explain how memory works using models such as the multi store model which emphasises nurture in the need for attention and rehearsal.	
	AO3	
	• The case of HM supports the existence of nature affecting the memory as he was unable to remember new factual information after surgery.	
	• Clive Wearing (Blakemore, 1988) supports nurture to a certain extent because an illness prevented new memories being stored.	
	• Blass (2012) found little difference between obedience cross-culturally which suggests that a nature explanation underpins obedience to a certain extent.	
	• Milgram's variations show differences in obedience and conformity as a result of proximity and status which can, to an extent, be used to reduce situations result in blind obedience.	
	• Social Impact Theory suggests the number of sources and targets can influence obedience in group situations, therefore the environment can play a significant role.	
	• Peterson & Peterson (1959) showed the influence of rehearsal on short term memory which is a nurture factor that can be applied to some extent to improving student learning.	
	Look for other reasonable marking points.	

Level	Mark	Descriptor
AO1 (6 marks), AO3 (6 marks)		
		Candidates must demonstrate an equal emphasis between knowledge and understanding vs judgement/conclusion in their answer.
	0	No rewardable material.
Level 1	1–3 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) A judgement/decision may be presented, but will be generic and the supporting evidence will be limited. Limited attempt to address the question. (AO3)
Level 2	4–6 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material leading to a judgement/decision being presented. Candidates will demonstrate a grasp of competing arguments but response may be imbalanced. (AO3)
Level 3	7–9 Marks	Demonstrates accurate knowledge and understanding. (AO1) Displays a mostly developed and logical argument, containing mostly coherent chains of reasoning. Demonstrates an awareness of competing arguments, presenting a judgement/decision which may be imbalanced. (AO3)
Level 4	10–12 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical argument, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments and presents a balanced response, leading to a balanced judgement/decision. (AO3)