Exam Questions

Answer Booklet

Topics:

Research Methods

Core Studies, Areas & Perspectives and Debates

Paper 1

OCR Psychology

Research Methods Q's & Answers

1.

Um, erm and ah

Disfluencies are disruptions in the flow of spoken language, including stuttering and hesitations, such as 'um', 'erm' and 'ah'. These often indicate emotions, such as feelings of anxiety and distress. A psychologist wants to investigate this further by conducting a correlation study to see if there is a relationship between the disfluencies a person makes and how anxious they feel while making a public speech.

(a) Write a null hypothesis for this study. **(3)**

Mark Scheme

Answer	Marks	Guidance
For example… *There will be no significant correlation between the number of disfluencies a person makes and how anxious they feel on a rating scale 1-10.*	**Max 3**	Context = disfluencies, uh, erm and ah, public speech, anxiety etc Can be written in future or present tense. Use of the word 'significant' is not necessary for full marks. For full marks both the variables **must** be operationalised (there are many ways to operationalise each variable but each one must be on a continuous quantitative scale to allow for a correlation to be carried out, e.g. disfluencies = **number of** disfluencies, anxiety = **score out of 10**). Zero marks for use of the word 'difference' or referring to cause/effect. Zero marks for an alternative hypothesis or muddled attempt like "there will be no positive correlation".
Correctly cited null hypothesis with **both** variables operationalised.	**3**	
Correctly cited null hypothesis with reference to both variables, but **only one operationalised**.	**2**	
Correctly cited null hypothesis with reference to both variables, but **neither** operationalised **OR** unclear wording.	**1**	
The candidate has not provided any creditworthy information.	**0**	

(b) Explain how you would conduct a correlation study to investigate if there is a relationship between the disfluencies a person makes and how anxious they feel while making a public speech. Justify your decisions as part of your explanation. **(15)**

You must refer to:

- how you would use self-selected sampling to obtain participants for the study
- how you would operationalise the variable 'disfluencies'
- how you would operationalise the variable 'anxiety'
- the control of one extraneous variable. You should use your own experience of practical activities to inform your response.

Mark Scheme

	Answer	Marks	Guidance
		Max = 15	

Level of response	Details of required features (RFs) included	Justification of decisions made	Reference to own practical work
Good 12-15 marks	**All 4** required features (RFs) addressed in context. **Accurate** and **detailed** knowledge and understanding of each feature in context. **Good** evidence of **application** of required features in context.	**Appropriate justification** of all decisions and *some* is contextualised. Well developed line of reasoning that is clear and logically structured.	**Explicit** reference to own practical work and clear links between own work and the planned research for each required feature, e.g. specific mention of aim or procedural features. For top band (good) 12 marks if just one RF linked, 13 marks if two, 14 marks if three and 15 if all four are linked If there is no explicit clear link between own practical work and *any* of the 4 required features caps the mark at 11 maximum. Overall mark **Look at RF first:** L4 Good – all 4 good (L4) in context L3 Reasonable – min 3 reasonable (L3) in context L2 Limited – min 2 limited (L2) in context or 3- 4 limited (L2) with no context L1 Basic – 1 basic (L1) (no context needed). **THEN look at justifications:** L4 Good – at least 2 reasonable (L3) AND at least 2 of the justifications are in context (does not have to be the reasonable ones) L3 Reasonable – at least 2 limited (L2) AND at least 1 of the justifications is in context. L2 Limited – at least 1 limited (L1) (no need for context) L1 Basic – no justification or basic justification **NB. References to experiment in justification (e.g. helps to establish cause and effect) = basic justification.**
Reasonable 8-11 marks	At least **3 required features in context**. **Reasonably accurate** and **detailed** knowledge and understanding of each feature.	**Some** appropriate **justification** of decision related to required features (if no justification in context award 8 marks). There was a line of reasoning evident with some structure.	
Limited 4-7 marks	At least **two** of the required features addressed in context **Limited application** of required features	**Attempt** to justify decision(s) but weak. Evidence of some structure, but weak.	
	OR three or all four required features referred to but in a limited way		
	If one required feature addressed in detail and justified in context and explicit links made to own practical work award 4 marks.		
Basic 1-3 marks	At least **one** of the required features addressed. **Weak application** of required features.	**None**, or if present very weak.	
	OR more than one of the required features referred to but in a very brief and/or basic way.		

RF		Details of RF
1	How to use self-selected sampling to obtain participants for the study	▪ **Good** - Clearly explained how self-selected sampling method has been carried out in their study in terms of procedural details (e.g. newspaper advert, contact details, how ended up with the final sample, e.g. the first 30 participants to contact the researcher would be included in the study) ▪ **Reasonable** – Shown reasonable attempt to explain how this has been carried out in their study (e.g. use of newspaper advert). ▪ **Limited** - Possibly defined (e.g. use of volunteers) OR unclear attempt to explain how this has been carried out in the study. ▪ **Basic** - Confuses sampling methods (i.e. alludes to some features of self-selected sampling however also includes features of other methods).
2	How you would operationalise the variable 'disfluencies'	▪ **Good** - Clear details on how 'disfluencies' will be operationalised with an outline of how data is quantified to clearly give a continuous numerical value suitable for use in a correlation. It is clear how this data is collected/measured. E.g. 'Counting the number of disfluencies such as 'erm' made in 5 minutes whilst giving a public speech'. **NB. For Good, candidates can specify time frame OR what the speech was about.** ▪ **Reasonable** - Reasonable details on how 'disfluencies' will be operationalised that lead to continuous numerical value suitable for use in a correlation. It may not be completely clear how the data is collected/measured. E.g. 'Counting the number of disfluencies made whilst giving a public speech'. ▪ **Limited** - The way 'disfluencies' is operationalised is addressed in an unclear way, e.g. doesn't refer to a public speech, doesn't make clear what a disfluency is or more than one measure indicated (e.g. two researchers/observers noting down the number of disluencies). **NB. No reference to public speaking cannot go above limited level.** ▪ **Basic** – Vague indication of how 'disfluencies' will be measured (e.g. noting disfluencies) or data not suitable for a correlation (i.e. reference to tallies in categories), e.g. 'Counting whether the participants made disfluencies or not whilst giving a public speech'.
3	How you would operationalise the variable 'anxiety'	▪ **Good** - Clear details on how 'anxiety' will be operationalised. Outline of how data is quantified to clearly give a continuous numerical value suitable for use in a correlation. It is clear how this data is collected/measured, e.g. if a rating scale is used, the ends of the scale are labelled. E.g. 'Asking people to rate on a scale of 1-10 (1 = not at all anxious and 10 = very anxious) how they felt whilst giving the public speech'. ▪ **Reasonable** - Reasonable details on how 'anxiety will be operationalised that lead to continuous numerical value suitable for use in a correlation. It may not be completely clear how the data is collected/measured. E.g. 'Asking people to rate on a scale of 1-10 how anxious they felt whilst giving the public speech'. **NB. Naming the scale incorrectly (e.g. semantic differential scale of 1-10) limits the RF to max reasonable.** ▪ **Limited** - The way 'anxiety' is operationalised is addressed in an unclear way, e.g. general measure of anxiety unrelated to public speaking/ 'Asking people to rate on a scale of 1-10 how anxious they feel' or more than one measure indicated. **NB. No reference to public speaking cannot go above limited level.** ▪ **Basic** – Vague indication of how 'anxiety' will be measured (e.g. asking about anxiety), scale is too small to be suitable for a correlation (i.e. it should span at least from 1 to 5) or data not suitable for a correlation (e.g. 'Asking the participants whether they felt anxious or not whilst giving a public speech').
4	The control of **one** extraneous variable	▪ **Good** - Clear and detailed outline of how an identified (explicit or implicit) extraneous variable. ▪ **Reasonable** - Clear outline of how an identified (explicit or implicit) extraneous variable. ▪ **Limited** - Attempts to explain how an identified (explicit or implicit) extraneous variable can be controlled. ▪ **Basic** - Identifies an extraneous variable that can be controlled. If more than one control, credit the first one. NB. Personal characteristics (e.g. being extroverted, confident, very anxious, occupation) are not creditworthy.
	Annotations	Context = disfluencies, uh, erm and ah, (public) speech, anxiety, etc. RF on the left with: **L4=Good; L3=Reasonable; L2= Limited; L1= Basic.** Context with **CONT**. Justification within the response on the right with a **TICK**. Do not annotate the level, note the level of justification to decide on the mark given within the band.

(c) Outline one strength and one weakness of conducting this study using the correlation technique. **(6)**

Mark Scheme

Answer	Marks	Guidance
Possible strengths: ▪ Collection of quantifiable data. ▪ Can provide ideas for experimental work in future. ▪ Easy to see patterns / trends (scatter diagram) in data. ▪ More ethical as there is no manipulation of variables. ▪ Can investigate difficult to manipulate variables ▪ Often higher in ecological validity ▪ Any other appropriate point. Possible weaknesses: ▪ Not possible to establish cause and effect. ▪ No details on why participants reacted / felt as they did. ▪ Often lack construct validity due to use of quantitative data ▪ Influence of third/extraneous variables ▪ Any other appropriate point.	**Max 6 [3+3]**	Context = disfluencies, uh, erm and ah, (public) speech, anxiety etc. **NB: Only first strength and first weakness is marked.**
For each strength and each weakness…		
Clear outline of strength/weakness in context.	**3**	
Clear outline of strength/ weakness but not in context. **OR** attempted outline of strength/weakness in context.	**2**	
Brief and/or weak attempt to outline strength/weakness (whether in context or not).	**1**	
The candidate has not provided any creditworthy information.	**0**	

(d) Outline one weakness of using self-selected sampling in this study. **(3)**

Mark Scheme

Answer	Marks	Guidance
Possible weaknesses: ▪ Lack of control over composition of sample. ▪ Potential biased sample – volunteers more outspoken so maybe less likely to be anxious/better at public speaking, access to advert may be limited to a particular group of people etc. ▪ Participant bias/increased risk of demand characteristics ▪ Can be time consuming ▪ Any other appropriate point.	**Max 3**	Context = disfluencies, uh, erm and ah, (public) speech, anxiety etc. **NB.** Accept context from Q21. **NB: Only first response is marked.**
Clear outline of appropriate weakness in context.	**3**	
Clear outline of weakness but not in context. **OR** attempted outline of weakness in context.	**2**	
Brief and/or weak attempt to outline strength/weakness (whether in context or not).	**1**	
The candidate has not provided any creditworthy information.	**0**	

2.

Slipping up can be good

Psychologists have investigated many ways that could improve how children learn. However, most of these have concentrated on studying the effect of different teaching styles, rather than focusing on the child themself. A psychologist taking a more child-focused approach wants to study if being more relaxed affects concentration levels. They want to investigate if young children can concentrate better when wearing comfortable slippers on their feet compared to wearing shoes. The study is to be conducted in one large primary school with 240 children on the register.

(a) Write a one-tailed alternative hypothesis for this study. **(3)**

Mark Scheme

Answer	Marks	Guidance
For example … Children will have better concentration (measured by spot the difference puzzle out of 20) when wearing slippers compared to wearing shoes.	**Max 3**	Context = concentration, slippers, shoes, learning, primary school children etc. Tail can be in either direction (predicting ***better*** concentration when wearing slippers, or predicting ***worse*** concentration when wearing slippers) Zero marks for two-tailed, null or correlational hypotheses. Can be written in future or present tense. Use of the word 'significant' is not necessary for full marks. For full marks both the variables must be operationalised. IV – both levels/conditions must be given (slippers vs shoes) DV – need to specify how concentration will be measured, e.g. spot the difference puzzle score/spot the difference score out of 20. 'Level of concentration' is **not** operationalised.
Correctly cited one-tailed alternative hypothesis with both variables operationalised.	**3**	
Correctly cited one-tailed alternative hypothesis with reference to both variables, but only one operationalised.	**2**	
Correctly cited one-tailed alternative hypothesis with reference to both variables, but neither operationalised.	**1**	
The candidate has not provided any creditworthy information.	**0**	

(b) Explain how you would conduct a study using the laboratory experimental method to investigate if wearing slippers affects a child's ability to concentrate. Justify your decisions as part of your explanation. **(15)**

You must refer to:

- how you would use random sampling to obtain 30 participants for the study
- the experimental design you would use in this study
- how you would operationalise the dependent variable to obtain quantitative data
- the control of one extraneous variable. You should use your own experience of practical activities to inform your response.

Mark Scheme

Answer		Marks	Guidance
		Max = 15	
Details of required features (RFs) included	**Justification of decisions made**		**Reference to own practical work**
All 4 required features (RFs) addressed in context. **Accurate** and **detailed** knowledge and understanding of each feature in context. **Good** evidence of **application** of required features in context.	**Appropriate justification** of all decisions and *some* is contextualised. Well-developed line of reasoning that is clear and logically structured.		**Explicit** reference to own practical work and clear links between own work and the planned research for each required feature, e.g. specific mention of aim or procedural features. For top band (good) 12 marks if just one RF linked, 13 marks if two, 14 marks if three and 15 if all four are linked. If there is no explicit clear link between own practical work and *any* of the 4 required features caps the mark at 11 maximum. **Maximum 11 marks (reasonable) if clearly done as a field experiment. If no justification in context award 8 marks.** Overall mark **Look at RF first:** L4 Good – all 4 good (L4) in context L3 Reasonable – min 3 reasonable (L3) in context L2 Limited – min 2 limited (L2) in context or 3- 4 limited (L2) with no context L1 Basic – 1 basic (L1) (no context needed). **THEN look at justifications:** L4 Good – at least 2 reasonable (L3) AND at least 2 of the justifications are in context (does not have to be the reasonable ones) L3 Reasonable – at least 2 limited (L2) AND at least 1 of the justifications is in context. L2 Limited – at least 1 limited (L1) (no need for context) L1 Basic – no justification or basic justification
At least **3 required features in context**. **Reasonably accurate** and **detailed** knowledge and understanding of each feature.	**Some** appropriate **justification** of decision related to required features (if no justification in context award 8 marks). There was a line of reasoning evident with some structure.		
At least **two** of the required features addressed in context. **Limited application** of required features. **OR** three or all four required features referred to but in a limited way.	**Attempt** to justify decision(s) but weak. Evidence of some structure, but weak.		
If one required feature addressed in detail and justified in context and explicit links made to own practical work award 4 marks.			
At least **one** of the required features addressed. **Weak application** of required features. **OR** more than one of the required features referred to but in a very brief and/or basic way.	**None**, or if present very weak.		

RF		Details of RF
1	Use of random sampling to obtain 30 participants	• **Good** – Clearly explained how this has been carried out in their study in terms of procedural details (e.g. register + the use of random number generator + how contacted after the selection/hat). • **Reasonable** – Shown reasonable attempt to explain how this has been carried out in their study (e.g. register + the use of the random number generator/hat). • **Limited** – possibly defined OR unclear attempt to explain how this has been carried out in their study. • **Basic** – Confuses sampling methods (i.e. alludes to some features of random sampling however also includes features of other methods)
2	Experimental design	• **Good** – Identified the experimental design and clearly explained how this has been implemented/carried out in their study (IMD should include reference as to how they were allocated to conditions; RMD should include reference to the order of conditions/counterbalancing; MPD should include reference to variables that participants were matched on). • **Reasonable** – Identified the experimental design, possibly defined AND reasonable attempt to explain how this has been carried out in their study. • **Limited** – Experimental design identified and defined OR unclear attempt to explain how this has been carried out in their study. • **Basic** – Just identifying the experimental design or confuses experimental designs (e.g. identified IMD but described RMD).
3	Operationalise the dependent variable to obtain quantitative data	• **Good** – Clear details on how dependent variable will be operationalised. Outline how data is quantified and how/when the concentration is measured (e.g. teacher or self-rating of concentration on a scale of 1-10 (1 being poor concentration and 10 being very good concentration), number of letter 'f' crossed out, score on the spot the difference puzzle, etc.) • **Reasonable** – Reasonable details on how dependent variable will be operationalised that does lead to quantitative data. • **Limited** – the way DV is operationalised is quantitative and addressed in a limited/unclear way, e.g. more than one measure indicated. • **Basic** – Vague indication of how DV would be measured (e.g. level of concentration).
4	Control of one extraneous variable	• **Good** – Clear and somewhat detailed description of how EV can be controlled. • **Reasonable** – Reasonable outline of how EV can be controlled. • **Limited** – Limited/brief outline of how EV can be controlled. NB. References to sample characteristics being controlled cannot be credited above limited level. • **Basic** – Identified how EV can be controlled/muddled description. If more than one control, credit the first one.
	Annotations	Context = concentration, slippers, shoes, learning, (primary school/young) children etc. Annotate: RF on the left with: **L4=Good; L3=Reasonable; L2= Limited; L1= Basic.** Context with **CONT**. Justification within the response on the right with a **TICK**. Do not annotate the level, note the level of justification to decide on the mark given within the band.

(c) Outline one strength of the use of open questions in this study. **(3)**

Mark Scheme

Answer	Marks	Guidance
Likely answers: more detail acquired; allows elaboration on responses, could lead to useful applications in education due to greater understanding etc.	**Max 3**	Context = concentration, slippers, shoes, learning, primary school children etc. Context can be from the question that they ask in 21(a) unless their question has achieved 1 mark as open but not in context. No credit for just identifying that it is qualitative data (with no indication of why this is a strength or what the strength is). **NB: Only first response is marked.**
Clear outline of strength in context.	**3**	
Clear outline of strength but not in context. **OR** attempted outline of strength in context.	**2**	
Identification of or attempt to outline strength (whether in context or not).	**1**	
The candidate has not provided any creditworthy information.	**0**	

(d) Outline one strength of conducting this study as a laboratory experiment. **(3)**

Mark Scheme

Answer	Marks	Guidance
Likely answers: high levels of control over extraneous variables, ability to establish cause and effect, more able to replicate than field experiments, standardisation allowing replication.	**Max 3**	Context = concentration, slippers, shoes, learning, primary school children etc. Do not accept comments related to the choice of experimental design as this is not the experimental method. **NB: Only first response is marked.**
Clear outline of strength in context.	**3**	
Clear outline of strength but not in context. **OR** attempted outline of strength in context.	**2**	
Identification of or attempt to outline strength (whether in context or not).	**1**	
The candidate has not provided any creditworthy information	**0**	

(e) Explain two factors that could affect the external validity of this study. **(6)**

Mark Scheme

Answer	Marks	Guidance
Likely answers: size/diversity/representativeness of sample; ecological validity of task set to assess concentration, ecological validity of the setting, etc.	**Max 6 [3+3]**	Context = concentration, slippers, shoes, learning, primary school children etc. NB. If candidates refer to types of external validity that are not listed on the specification these can be credited, e.g. temporal validity (teaching methods change over time)
3 marks for each factor outlined ...		
Clear explanation of how external validity could be affected in context.	**3**	
Clear explanation of how external validity could be affected, but not in context. **OR** attempted explanation of how external validity could be affected in context.	**2**	
Identification of relevant factor/type of external validity or weak attempt to explain how external validity could be affected (whether in context or not).	**1**	
The candidate has not provided any creditworthy information	**0**	

3.

Sounds familiar

Memory can be influenced by many different things. However, there are techniques which we can use to improve our memory. One such technique involves reading aloud the information we want to remember. A psychologist investigated this by giving participants a set of 30 words to try and remember. Six participants studied the words in silence. A different group of six participants were instructed to read the words aloud when trying to learn them. The data collected is presented in the table below.

Number of words correctly recalled (max. 30)					
Reading aloud group			Silent study group		
Participant	Score	Rank	Participant	Score	Rank
a	24	9.5	a	14	2
b	27	11	b	16	3
c	21	6	c	12	1
d	20	5	d	29	12
e	23	8	e	17	4
f	22	7	f	24	9.5
$n_1 = 6$			$n_2 = 6$		

(a) Outline one conclusion that can be made from the raw data presented in this table. **(3)**

Mark Scheme

Answer	Marks	Guidance
Conclusions could include: ▪ Reading aloud seems to facilitate memory, perhaps because the act of reading enables the words to be practiced more and processed at a deeper level ▪ There are some individual differences, so reading aloud does not improve memory for everyone, indicating cognitive processes work differently for different people. Accept any other appropriate conclusions here.	3	Context = reading aloud, silence, recall, memory, etc. A conclusion must be an interpretation/application of the findings / data (not simply a statement of the result(s) obtained). **Max 1 mark** for presentation of a finding (involving comparison of data) with no interpretation/explanation of it. Zero marks if just data is given. **NB: Only first response is marked.**
Clear, detailed conclusion in context (or supported by data).	3	
Clear, detailed conclusion but not in context. **OR** attempt in context.	2	
Brief and/or weak attempt (whether in context or not)	1	
The candidate has not provided any creditworthy information	0	

(b) Give one reason why the Mann-Whitney U test is the appropriate inferential test to use to analyse the data from this study. **(2)**

Mark Scheme

Answer	Marks	Guidance
Any one reason (in bold) in context from: ▪ It is a test for **independent measures design**, and this study had different participants in the reading aloud condition compared to the silent condition. ▪ It is a test that uses at least **ordinal** data and this study had **ordinal** data as it was scores out of 30 in a memory test. ▪ It is a test that assesses **differences** between conditions, and this study assessed differences in memory between the reading aloud and silent conditions.	**Max 2**	Context = reading aloud, silence, recall of words, memory, etc. '6 participants' not enough for context. **NB: Only first response is marked.**
One appropriate reason in context.	**2**	
One appropriate reason but not in context. **OR** attempt to give one appropriate reason in context.	**1**	
The candidate has not provided any creditworthy information.	**0**	

(c) Before using the formula for the Mann-Whitney U test, the data obtained must be ranked. In the results, two participants have the same score of 24. Explain how this is dealt with when ranking the data. **(3)**

Mark Scheme

Answer	Marks	Guidance
As the two scores of 24 were the same, so they receive the same rank of 9.5 as the ranks 9 and 10 have been shared, i.e. 9 + 10 / 2 = 9.5	**Max 3**	Context = reading aloud, silence, recall, memory, etc. NB. Specific scores could be credited as context.
Clear explanation in context of how having the same scores is dealt with including references to the same rank and a way of finding the same rank.	**3**	
Clear explanation of how having the same scores is dealt with including references to the same rank (or simply 9 and 10) and a way of finding the same rank (no context). **OR** Explanation of why two ranks are the same in context.	**2**	
Attempt to explain why two ranks are the same (whether in context or not).	**1**	
The candidate has not provided any creditworthy information	**0**	

(d) Calculate the U value for the Mann-Whitney U test for the data collected in this study. Show your workings. You may use the formula presented below. U = the smaller of U1 and U2. **(5)**

Where U_1 is ...

$$U_1 = R_1 - \frac{n_1(n_1 + 1)}{2}$$

and U_2 is ...

$$U_2 = R_2 - \frac{n_2(n_2 + 1)}{2}$$

Mark Scheme

Answer	Marks	Guidance	
1 mark for each of the following correct / evident in answer ...	**Max 5 [1+1+1+1+1]**	**U_1:** $= 46.5 - \frac{6\,(6+1)}{2}$ $= 46.5 - \frac{6 \times 7}{2}$ $= 46.5 - \frac{42}{2}$ $= 46.5 - 21$ **$= 25.5$**	**U_2:** $= 31.5 - 6\,\frac{(6+1)}{2}$ $= 31.5 - \frac{6 \times 7}{2}$ $= 31.5 - \frac{42}{2}$ $= 31.5 - 21$ **$= 10.5$**
1 mark for sum of ranks for reading aloud condition calculated correctly (46.5)	**1**		
1 mark for sum of ranks for silent study group calculated correctly (31.5).	**1**		
1 mark for correct calculation of U_1 (25.5) value OR correct calculation of U_2 value (10.5).	**1**		
1 mark for all workings of U_2 value shown.	**1**	**U_2 is the smaller of the two scores so U = 10.5 (candidates may indicate this by circling the correct U value)**	
1 mark for choosing the final U value.	**1**		
The candidate has not provided any creditworthy information.	**0**	**NB.** Accept alternative workings for U_1 and U_2 if the correct answer is calculated.	

(e) How is the critical value used to determine if the findings are statistically significant? **(1)**

Mark Scheme

Answer	Marks	Guidance
For one mark this must refer to comparison with calculated value. It is **compared to** the appropriate/correct **calculated/observed** value.	**1**	Accept answers related directly to the Mann-Whitney test.

4.

Steps to increase bin use

Research suggests that, when trying to encourage people to change their behaviour in some way, 'telling people what to do' is not always effective and a more subtle approach may be better ('nudge theory'). To investigate this, a psychologist conducted an observation study monitoring people's use of two different types of litter bin situated close to each other in the pedestrian area of one large town centre – one that had steps printed on the pavement leading up to it and another without the steps. Recordings were made each time any item was deposited in the bin throughout a continuous period from 10am to 2pm. The data on how many people used the bins is presented in the table below.

Table showing the number of times each bin was used by males and females

	Males	Females
Bin with steps	9	14
Bin without steps	5	12

(a) Calculate the percentage of people who used the bin with steps leading up to it. Show your workings and present your finding to two significant figures. **(3)**

Mark Scheme

Answer		Marks	Guidance
23/40 x 100 = 58%		**Max 3**	23/40 x 100 = 57.5 = 58 – 3 marks 23/40x100 = 57.5 – 2 marks
Correct answer with full workings shown		**3**	
57.5 calculated with full workings shown	**OR** correct answer (58) but some of the workings are missing.	**2**	23/40=0.58 – 1 mark 58 – 1 mark 57.5 – 1 mark
Correct answer shown to 2 or 3 significant figures with no or incorrect workings	Some of the correct workings are given. (e.g. 23/40=.58 or .575)	**1**	% sign not required.
The candidate has not provided any creditworthy information		**0**	

(b) Outline two conclusions that can be obtained from the data collected in this study. **(6)**

Mark Scheme

Answer		Marks	Guidance
Conclusions could include: the bin with the steps leading up to it was used more often, suggesting that the steps encouraged people to use the bin more, perhaps because of the novelty value that this afforded etc; Perhaps the bin with steps was used more as people were curious where the steps led to and followed them, then deposited their litter in the bin; Could be a conformity effect of more people using the bin with steps leading other people to copy this behaviour and also use the bin, woman may be more likely to care about the environment as they used the bins more than men, etc. Accept any other appropriate conclusions here.		6	-Context = bin/bins, litter, steps -Clear (explicit) interpretation of findings (not simply stating a finding) is required for top band 3 marks could be obtained by justifying their conclusion For information - 57.5% use of bin with steps 42.5% use of bin without steps 65% overall use of bin by females 35% overall use of bin by males 64% of the males used bin with steps 54% of the females used bin with steps
3 marks for each conclusion			
Clear, detailed response in context		3	
Clear, detailed response but not in context	**OR** attempt in context	2	
Brief and/or weak outline of a conclusion (whether in context or not)	**OR** simply stating a finding	1	
The candidate has not provided any creditworthy information		0	

(c) The psychologist used the Chi-square test to analyse the data from this study. Give one reason why this would be the appropriate non-parametric inferential test to use. **(2)**

Mark Scheme

Answer	Marks	Guidance
Any one reason in context from: nominal (categorical) data obtained; looking for a difference; independent groups (unrelated)	Max 2	-Context = bin/bins, litter, steps, male/female
One appropriate reason in context	2	
One appropriate reason but not in context	1	
The candidate has not provided any creditworthy information	0	

(d) Calculate the degrees of freedom for use with the Chi-square test in this study. Show your workings. **(2)**

Mark Scheme

Answer	Marks	Guidance
df = 1 Workings ... (R-1) x (C-1) (2-1) x (2-1) = 1	Max 2	(2-1) x (2-1) = 1 – 2 marks (R-1) x (C-1) = 1 – 2 marks
Correct answer with workings	2	
Correct answer but not workings (or workings incomplete/unclear/incorrect)	1	
The candidate has not provided any creditworthy information	0	

(e) Using the extract from the table of critical values presented below, what is the critical value for use with the Chi-square test in this study at the 5% level of probability? **(1)**

	Probability level					
df	**0.5**	**0.10**	**0.05**	**0.02**	**0.01**	**0.001**
1	0.455	2.706	3.841	5.412	6.635	10.827
2	1.386	4.605	5.991	7.824	9.210	13.815
3	2.366	6.251	7.815	9.837	11.345	16.268
4	3.357	7.779	9.488	11.668	13.277	18.465
5	4.351	9.236	11.070	13.388	15.086	20.517

Mark Scheme

Answer	Marks	Guidance
3.841	**Max 1**	If nothing written but correct answer identified in the table – this is creditworthy.
Correct answer provided	**1**	
The candidate has not provided any creditworthy information	**0**	

(f) The psychologist obtained a calculated value of 0.4058 after analysing the data with the Chi-square test. Write a significance statement presenting this finding showing if the results are significant at the 5% level of probability or not. **(3)**

Mark Scheme

Answer	Marks	Guidance
$X^2 = 0.4058$, df =1, p>0.05 1 mark for each correct feature included ... -calculated value -df -correct indication of significance (i.e. '>')	**Max 3**	Written out version can receive full credit. Eg The Chi Square calculated value is less than the critical value of 3.841. Therefore the difference is not significant at the 5% probability level.
3 correct features	**3**	
2 correct features	**2**	1 mark for comparing the calculated and critical value.
1 correct feature	**1**	1 mark for identifying the probability is greater than 5% or is not significant at the 5% level of significance. (95% or 1 in 20 is also acceptable) **OR** state the results are not significant
The candidate has not provided any creditworthy information	**0**	1 mark for 3.841 or df = 1

(g) What does the analysis from the Chi-square test inform us regarding the use of the two different types of bin from this study? **(3)**

Mark Scheme

Answer	Marks	Guidance
It informs us that there is no difference in the usage of the two different types of bins. People are not more likely to use the bin with steps leading up to it compared to the one without steps.	**Max 3**	-Context = bin/bins, steps For full marks the candidate must refer to the bin with steps and the bin without steps. The null hypothesis is accepted and/or alternative hypothesis rejected - 1 mark
Clear response in context	**3**	
Clear response but not in context | Attempt in context	**2**	
Brief and/or weak attempt (whether in context or not)	**1**	
The candidate has not provided any creditworthy information	**0**	

5.

(a) If the variance is 36, what is the standard deviation? **(1)**

A 3

B 6

C 18

D 1296

Mark Scheme

B = 6

(b) What type of data is used to calculate the Chi-square test? **(1)**

A interval

B nominal

C ordinal

D ordinal and interval

Mark Scheme

B = Nominal

(c) Which is the simplest form of the ratio 12:8? **(1)**

A 2:3

B 3:1

C 3:2

D 6:4

Mark Scheme

C = 3:2

(d) What decimal is represented by the fraction 1/25? **(1)**

A 0.25

B 0.04

C 0.02

D 0.05

Mark Scheme

B = 0.04

(e) Which inferential statistical test simply involves counting the number of times the values in one condition are higher or lower than those in the other? **(1)**

A Chi-square

B Binomial Sign

C Spearman's Rho

D Wilcoxon Signed Ranks

Mark Scheme

B = Binomial Sign

(f) What type of question or scale allows respondents to express how much they agree or disagree with a statement? **(1)**

A leading

B likert

C open

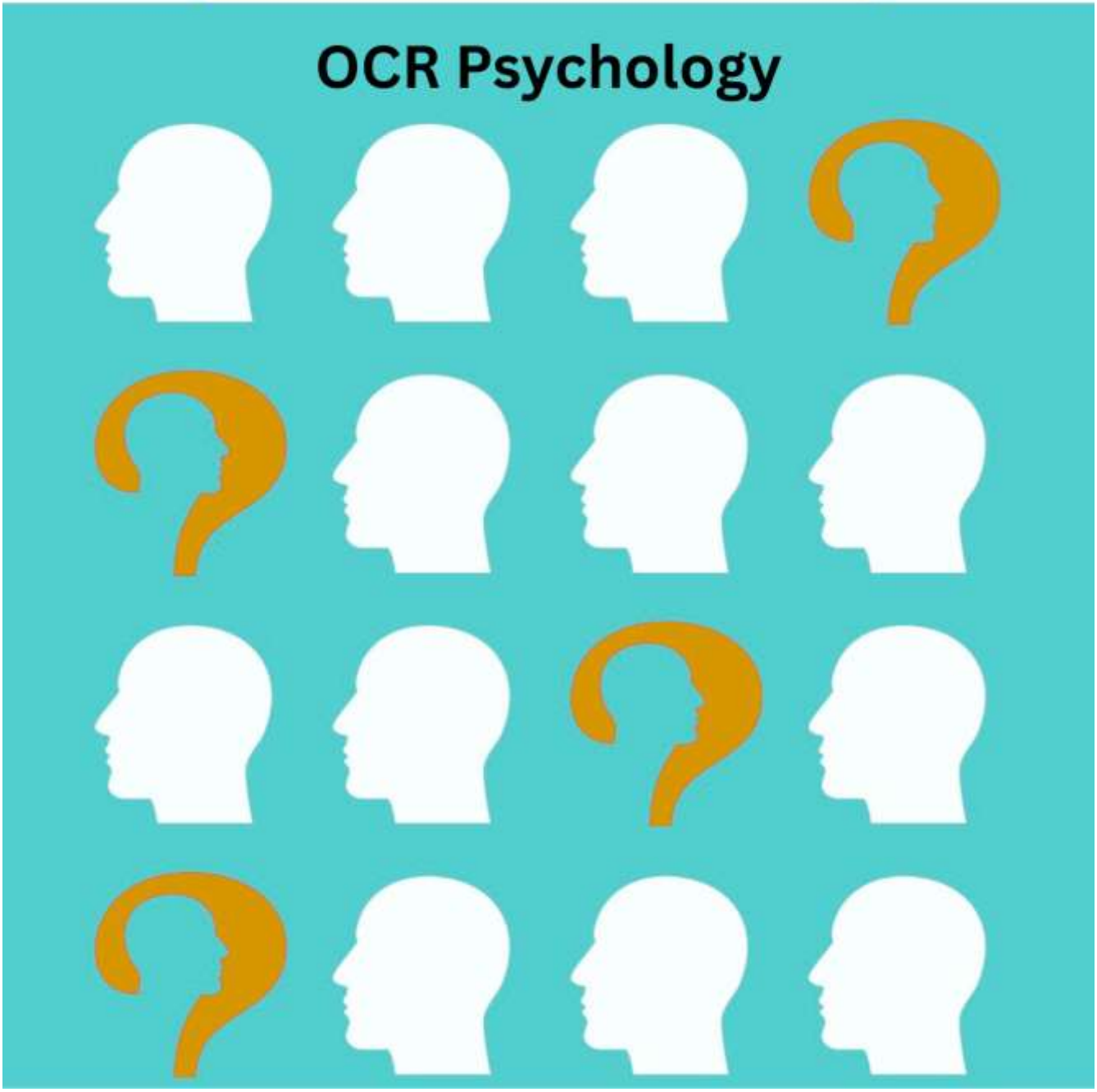
D semantic differential

Mark Scheme

B = Likert

Paper 2

OCR Psychology



Core Studies Q's & Answers

1. (a) Outline one difference between the samples used in Bandura et al.'s (1961) study into the transmission of aggression and Chaney et al.'s (2004) Funhaler study. **(3)**

Mark Scheme

Outline one difference between the samples used in Bandura et al.'s (1961) study into the transmission of aggression and Chaney et al.'s (2004) Funhaler study. Differences include: number, ages, age range, ethnicity, gender. Likely answers: • One difference between the two studies is the **number** of participants used. Bandura = **72** children (accept range 70-74) Chaney = **32** children. (accept range (30-34) • One difference between the two studies is the **ethnicity** of the participants. Bandura = from the **USA**/ Stanford University nursery Chaney = participants were from **Australia**. • One difference between the two studies is the **age** range of the participants. Bandura = aged **3 years 1 month to 5 years 9 months**/with a mean age 4 years 4 months. Chaney = aged between **1.5 and 6 years**/with a mean age of 3.2 years. • One difference between the two studies is the **number of boys and girls** used as participants. Bandura = had an equal number of boys and girls/**36** boys and **36** girls Chaney = **22** boys and **10** girls. **NB:** No credit for sample method	**3**	**3 marks –** For including the following: • Identification of an appropriate difference between the samples used. • Supporting evidence from Bandura et al. • Supporting evidence from Chaney et al. **2 marks –** For identifying an appropriate difference with supporting evidence from either Bandura et al. or Chaney et al. OR No clear identification of a difference but clear evidence given from Bandura et al and Chaney et al with implied comparison. **1 mark –** For merely identifying an appropriate difference, e.g. the age of the children. **0 marks –** No or incorrect answer

(b) Outline one difference between the experimental designs used in Bandura et al.'s (1961) study into the transmission of aggression and Chaney et al.'s (2004) Funhaler study. **(3)**

Mark Scheme

Outline one difference between the experimental designs used in Bandura et al.'s (1961) study into the transmission of aggression and Chaney et al.'s (2004) Funhaler study. Example answers: • Bandura et al. used an **independent measures design** whereas Chaney et al. used a **repeated measures design.** (1) The children in Bandura et al.'s study only participated in one condition, i.e. they either saw an aggressive or non-aggressive model/they either saw a male or a female model (1). In Chaney et al.'s study all the children's medical compliance was assessed in both conditions of using a standard inhaler and the Funhaler. (1) • Bandura et al. used a **matched pairs design** whereas Chaney et al. used a **repeated measures design**. (1) The children in Bandura et al.'s study were matched on their pre-rated levels of aggression (1). In Chaney et al.'s study all the children's medical compliance was assessed in both conditions of using a standard inhaler and the Funhaler. (1) **NB:** No credit for experiment type (Field/Lab)	**3**	**3 marks –** For including the following: • Identification of an appropriate difference between the experimental designs used. • Supporting evidence from Bandura et al. • Supporting evidence from Chaney et al. **2 marks –** For identifying an appropriate difference with supporting evidence from either Bandura et al. or Chaney et al. **1 mark –** For merely identifying an appropriate difference, e.g. Bandura et al. used an independent measures design whereas Chaney et al. used a repeated measures design, i.e. no contextualisation. **0 marks –** No or incorrect answer. **NB.** *Bandura's study can be classed as independent measures or matched pairs (but the supporting evidence must be in relation to the IV in support of the named design.)*

2. With reference to Kohlberg's (1968) study into the stages of moral development:

(a) Give two reasons why children at the preconventional level say that Heinz should not have stolen the drug for his wife. **(2)**

Mark Scheme

With reference to Kohlberg's (1968) study into the stages of moral development: **Give two reasons why children at the preconventional level will say Heinz should not have stolen the drug for his wife.** Two reasons, **one** for obedience/punishment and **one** for self-interest. Most likely answers will refer to: **Obedience and Punishment** / **Self Interest** To obey the rules. / To avoid self-condemnation To avoid punishment by authority / To obtain rewards To not break the law / To avoid dislike by others To avoid punishment / To be respected by others.	**2 [1+1]**	**1 mark –** For each correctly identified reason. **0 marks –** No or incorrect answer. **NB:** Do not credit general reference to morality e.g. 'Because it is immoral' as does not show reasoning for the stage.

(b) Outline one conclusion that can be drawn from the findings of Kohlberg's study. **(2)**

Mark Scheme

Outline one conclusion that that can be drawn from the findings of Kohlberg's study. Most likely answers: • The stages in an individual's moral development are sequential/invariable. • Each stage of moral development comes one at a time and always in the same order. • An individual may stop at any given stage and age in an invariant sequence of moral development. • Preconventional thought is based on self-interest • Conventional thought is based on rules and approval from others • Post-conventional thought is based on respect for democratically agreed rules/personal conscience. • Kohlberg's six-stage theory of moral development is not significantly affected by widely ranging social, cultural or religious conditions. • Children can differ in the rate at which they progress through the stages. • Stages of moral development are universal • Other appropriate conclusions should be credited.	**2**	**2 marks –** A clear and accurate conclusion, such as one of the examples given. **1 mark –** A vague or partial answer, e.g. each stage of moral development comes one at a time, i.e. no reference to 'in the same order'; "There are stages children go through in moral development' i.e. no reference to 'sequential/invariable' 'Moral development is universal' i.e. no reference to 'stages'

3. Grant et al.'s (1998) study into context-dependent memory was a laboratory experiment.

(a) Describe one strength of using a laboratory experiment in this study. **(2)**

Mark Scheme

Grant et al.'s (1998) study into context-dependent memory was a laboratory experiment. **Describe one strength of using a laboratory experiment in this study.** Example answers: • One strength of using a laboratory experiment is that they can readily ensure that every participant is treated in the same way by using **standardised procedures** (1). For example, every participant completed the **same** short-answer and multiple-choice test (1). • One strength of using a laboratory experiment is that the environment can be **controlled** so no situational variables, such as distractions, noise, the presence of other people can affect results (1). For example, **all participants wore headphones**. • One strength of using a laboratory experiment is that they are **easy to replicate** (making findings reliable) (1). In Grant **all participants followed the same procedure**: reading an article, had a break of about 2 minutes, completed a short-answer test and then a multiple-choice test. • One strength of using a laboratory experiment is that they enable the use of **complex equipment**/materials (1). For example, **every** participant used a cassette player and headphones (1). • Other appropriate strengths should be credited.	**2**	**2 marks –** For a clear and accurate description which includes: • Identification of an appropriate strength of a laboratory experiment. • Appropriate supporting evidence from Grant et al.'s study. **1 mark –** For the mere identification of an appropriate strength of a laboratory experiment, i.e. no contextualisation. **0 marks –** No or incorrect answer.

(b) Outline two features of the procedure in this study. **(4)**

Mark Scheme

Grant et al.'s (1998) study into context-dependent memory was a laboratory experiment. **Outline two features of the procedure used in this study.** Answers should identify and contextualise two features • Participants were randomly assigned to one of four conditions: silent-silent, silent-noisy, noisy-noisy or noisy-silent • Participants read an article under silent or noisy conditions • Read aloud standardised instructions that described the tasks as part of a class project/. • Participants read an article once and were told they would have to complete tasks based on the article. • Participants were given instructions: silent were told nothing would be heard/ noisy were told they would be played loud background music. • Participants had a break of 2 mins between the study and test • Participants were tested in either matching (silent-silent) or mismatching (silent-noisy) conditions (Independent measures design). • Participants completed a short answer/recall test and the multiple-choice/recognition test. • Participants were debriefed and were told the research was on the influence of context on memory recall. • All participants were given headphones to wear/ All read the same psychoimmunology article (basic standardised features) • Other appropriate features of the procedure should be credited.	**4** **[2+2]**	For each feature: **1 mark** – A feature of the procedure identified. Plus **1 mark** – This feature is further contextualised. **0 marks –** No or incorrect answer. **NB.** No marks are credited for details of sample/sample method, operationalisation of variables (planning stage) and aims/hypotheses. Must be features of the procedure/ process. NB One basic standardised feature can be credited

4. Briefly discuss the extent to which the findings of Maguire et al.'s (2000) study on taxi drivers can be considered valid. **(5)**

Mark Scheme

Briefly discuss the extent to which the findings of Maguire et al.'s (2000) study on taxi drivers can be considered valid. Example discussion points: • High internal validity as participants matched on gender, handedness, good psychological and physical health, and age of the taxi drivers • High validity with the use of blind researcher to carry out pixel counting and VBM scores to remove bias • High validity with comparison of the taxi-drivers to a control group giving construct validity. • Low ecological validity as MRI scanner is not something participants would have to do on a daily basis. • High validity as the variable being measured (hippocampal volume) is not something participants could falsify, • Highly valid because they are supported by evidence from comparative studies with animals and brain damaged patients consistent with the findings from the taxi drivers. • High validity as the volume differences in the hippocampus were established by two independent measures - VBM and pixel counting. • Other appropriate discussions should be credited.	**5**	**5 marks –** For a very **clear** discussion that has considered the extent to which findings can be considered valid. discussion refers to **either** three reasons why the findings can/cannot be considered valid **or** two reasons which considers the extent of both how the study can and cannot be considered valid. **3-4 marks** – For a **good** discussion that refers to at **least two** reasons why the findings can/cannot be considered valid. **1-2 marks** - For a **reasonable** discussion that refers to at **least one** reason why the findings can/cannot be considered valid. **0 marks** – No or incorrect answer.

5. Explain why Hancock et al.'s (2011) study into the language of psychopaths can be placed in the individual differences area. **(3)**

Mark Scheme

Explain why Hancock et al.'s (2011) study into the language of psychopaths can be placed in the individual differences area. Likely answers: ***Shows understanding of individual differences*** • The individual differences area focuses more on those whose behaviour falls outside the 'normal', typical or expected range of behaviour • Emphasizes that people are unique and that behaviour is influenced by individual characteristics • The individual differences area considers that there are many differences between individuals, as well as similarities. • Differences between individuals can be measured/ quantified ***Outlines a finding from Hancock et al.'s study:*** • Hancock et al. found that psychopaths who had committed murder described powerful emotional events (their crimes) on a more primitive but rational level than non-psychopaths who had committed murder. • The psychopaths used significantly more words connected with food, drink, clothing and money (basic physiological needs) than the non-psychopaths who used significantly more words connected to family and religion (social needs) • Psychopaths also tended to use less positive or emotionally intensive language and showed more instances of callousness and lack of empathy in their narratives than non-psychopaths ***Links Hancock et al.'s study to the individual differences area:*** • Hancock showed that there are differences between psychopaths and non-psychopaths). • The language of psychopaths is not 'normal', typical or expected range of behaviour. • Other appropriate explanations should be credited.	**3**	**3 marks** – A clear and accurate explanation that: • Shows an understanding of the individual differences area. • Outlines a finding from Hancock et al.'s study. • Links Hancock et al's study to the individual differences area. **2 marks** – A reasonably accurate explanation that refers to two of the above. **1 mark** – A vague or partial answer, e.g. a mere description of the individual differences area with no supporting evidence from Hancock et al.'s study. **0 marks** – No creditworthy information.

Areas and Perspectives Q's & Answers

1. Explain one application of the cognitive area of psychology. **(4)**

Mark Scheme

Explain <u>one</u> application of the cognitive area of psychology. <u>Possible applications:</u> • Interviewing of witnesses by police and lawyers. • Improving student revision techniques. • Cognitive Behaviour Therapy • Play strategies to develop perception • Techniques to increase recycling activities <u>Example answers:</u> • One application of the cognitive area is to improve the questioning of witnesses by the police/ lawyers *(identify application)*. Within interviews they would avoid the use of leading questions/ ask more open questions in an interview to increase the accuracy of testimony. *(why/how used)*. This is because Loftus and Palmer found that the way a question is phrased will influence the memory of an event *(concept of the area)*, in their study the verb in a question affected the speed a witness 'remembered' a vehicle travelling *(elaboration of research/dev of theory)*. • One application of the cognitive area has been to encourage schools/colleges to provide quiet areas for students to revise for exams *(identify application)*. These study spaces would match the conditions of the exam as they are sat in silence *(how/why it it used)*. The cognitive area is interested in factors influencing internal processes such as memory *(Clear understanding of principle)*. Research has suggested that those learning in matched conditions have improved recall compared to mismatched conditions. • Other appropriate practical applications should be credited.	4	**4 marks** – A clear and accurate explanation of a relevant application of the cognitive area which contains these four features: • Identifies an appropriate cognitive application. • Explains the application – i.e. how/why it is used. • Shows clear understanding of a principle or concept of the cognitive area. • Elaboration on research/ development of theory **3 marks** – A reasonable explanation of a relevant application of the cognitive area which contains 3 of the above four features. **2 marks** – A limited explanation of a relevant application of the cognitive areas which contains 2 of the above four features. **1 mark** – A basic explanation e.g. simply identifying an application of the cognitive area. **0 marks –** No or incorrect answer. **NB.** *Appropriate cognitive applications from H567/03 (Module 3) should be considered creditworthy and marks awarded as given above.*

2. Outline ways in which the biological area can be considered scientific. Support your answer with evidence from any appropriate core studies. **(8)**

Mark Scheme

Outline ways in which the biological area can be considered scientific. Support your answer with evidence from any appropriate core studies. <u>Likely ways in which the biological area can be considered scientific, all of which should be supported by appropriate evidence:</u> • Interested in the biological processes/changes such as genetic testing, brain structure and/or hormones • Provide clear predictions which can be scientifically tested and proven/falsified. • Experimental method which means cause and effect can be inferred. • Use laboratory experiments where an IV can be manipulated/ a naturally occurring IV can be implemented to show its effect on a DV, providing empirical evidence for a hypothesis. • Produce quantitative data • Can use standardised procedures which enable replicability • Produce objective/emphasise objective measurement. • Usually take place in controlled environments, so the influence of extraneous variables is limited increasing the likelihood of causal relationships. • Reduces behaviour into its component parts and focuses on a single factor as being the main influence on behaviour. This single factor can be isolated and scientifically tested/examined to establish whether it is the cause of an individual's behaviour. • Other appropriate descriptions should be credited. Evidence should be provided from Sperry (1968), Casey et al. (2011), Blakemore and Cooper (1970) and/or Maguire et al. (2000). The evidence should be used effectively to specifically support the point being made, rather than just generally described.	8	**7-8 marks –** For a clear and accurate outline that: • Identifies at least two ways in which the biological area can be considered scientific. • Supports suggestions with appropriate evidence from at least two studies. **5-6 marks** - For a reasonably clear and accurate outline that: Either • Identifies two ways in which the biological area can be considered scientific with only one suggestion being supported with adequate evidence. Or: • Identifies two ways in which the biological area can be considered scientific with evidence for both suggestions being weak/vague or only one study used. **3-4 marks –** For a limited outline that: Either • Identifies one way in which the biological area can be considered scientific, supported with some evidence. Or: • Identifies two ways in which the biological area can be considered scientific but with no supporting evidence. **1-2 marks –** For a basic/weak answer that merely outlines a way in which the biological area can be considered scientific with no supporting evidence **NB**. If only one way is considered, apply the guidelines given above, but award **no more** than 4 marks.

3. Compare the biological area with the social area. Support your answer with evidence from appropriate core studies. **(8)**

Mark Scheme

Compare the biological area with the social area. Support your answer with evidence from appropriate core studies. Possible similarities between the areas: • Practical applications in the real world. • Research can be reductionist. • Deterministic conclusions in research. • Allow for the use of experiments where researchers can manipulate an IV to study its effect on a DV. • Can gather quantitative data. • Can use scientific methodology. Possible differences between the areas: • The biological area supports the nature side whereas the social area supports the nurture side. • The biological area supports the individual side whereas the social area supports the situational side. • There tend to be more ethical issues with research in the social area. e.g. studies in the social area often involve deception and fail to gain informed consent whereas studies in the biological area gain consent and do not deceive participants. • Although research in both areas can be scientific, research in the biological area tends to be more scientific. • Research in the biological area is objective whereas research in the social area can be subjective. • The biological area usually uses laboratory experiments which take place in controlled environments whereas the social area often uses field experiments. • The social area is more likely to gather qualitative data than the biological area. • The social area is more likely to gather ecologically valid data than the biological area. • Social area uses cross cultural studies whereas biological are often in one area/location • Other appropriate points of comparison should be credited.	8	**7–8 marks** - For a thorough comparison of both areas. The arguments are developed and coherent. There are clear and valid comparisons between the two areas. At least two points of comparison are made. **Each** comparison point is supported by appropriate evidence from both areas and elaborated. Or Three points which are not as well elaborated **5-6 marks** - For a good consideration of both areas. At least two points of comparison are made. There is some coherency to the arguments made. Identified comparison points are supported by appropriate evidence from both areas but may lack elaboration. **3-4 marks** – For a reasonable consideration of both areas. At least one point of comparison is considered and supported by appropriate evidence from both areas, though this may be somewhat vague. Or Two points of comparison with support from one area **1-2 marks** - For a basic comparison of both areas. There is unlikely to be any appropriate supporting evidence **0 marks** – No creditworthy response.

4. Discuss the individual/situational explanations debate in psychology. Support your answer with evidence from appropriate core studies. **(15)**

Mark Scheme

Discuss the individual/situational explanations debate in psychology. Support your answer with evidence from appropriate core studies. **Knowledge of individual/situational debate:** • The situational explanation explains behaviour being caused by the environment a person is in. • The individual explanation explains behaviour being caused by dispositional/internal factors. **Discussion of Individual explanation** • Research from the Biological/ cognitive area supports individual explanations • Recognises freedom of choice/ gives people responsibility for their actions. • Provides opportunities to develop practical applications that focus on changing factors such as faulty cognitions, moralistic values. • Provides a holistic explanation for behaviour as it takes into account individual differences. • By attributing the cause of behaviour to individual factors can lead to socially sensitive research as the implications of the findings could suggest a person's race, age, gender, disability, etc cause behaviours/ can cause stigma and discrimination. • By suggesting behaviour is due to the personal characteristics and traits of an individual, the possibility that the environment/ other people have an effect on people's behaviour is ignored. it is reductionist. **Discussion of Situational explanations** • Situational explanations are supported by the social/ developmental area. • Suggests behaviour is predictable, so researchers can establish cause and effect. • Allows for prediction and control/infers that behaviour can be changed by improving the environment. • Recognises that people cannot always be held responsible for their actions. • By suggesting behaviour is caused by the environment/ people in the surrounding environment, ignores the possibility that people's individual personality characteristics/ traits can have significant effects on their behaviour, i.e. it is reductionist. • By suggesting behaviour is caused by the situation personal responsibility is removed. • Other appropriate points should be credited. Evidence can be cited from any core study that supports the side of the debate under consideration.	15	**12-15 marks** - For a **thorough and balanced discussion** that is relevant to the demands of the question. Arguments are coherently presented with clear understanding of the points raised. A **range** (at least 3) of points are considered and are well developed as part of the discussion. There is evidence of valid conclusions that summarise issues very well. **Relevant evidence is used to good effect** to support the points being made. There is consistent use of psychological terminology, and well-developed line of reasoning which is logically structured. Information presented is appropriate and substantiated. **8-11 marks** - For a **good** and **reasonably balanced** discussion that is mainly relevant to the demands of the question. Arguments are presented with **reasonably clear understanding** of the points raised. A **range** of points are considered and some are developed as part of the discussion. There is evidence of valid conclusions that summarise issues well. **Evidence is used mostly to good effect** to support the points being made. There is good use of psychological terminology in a response with reasonable structure. Information presented is largely appropriate. **4-7 marks** - For a **limited** discussion that is has **some relevancy** to the demands of the question. Arguments are presented but with **limited understanding** of the points raised. There is evidence of attempts to draw conclusions. **Evidence may be used** as part of the discussion. There is some use of psychological terminology in a response with limited structure. Information presented is sometimes appropriate. **1-3 marks** - For a **basic** discussion that is **rarely relevant** to the demands of the question. Arguments are presented but with **weak understanding** of the points raised. Relevant **evidence is weak or not apparent** at all. There is limited or no use of psychological terminology and structure is poor. Information presented is rarely appropriate. **0 marks** – No creditworthy response. **NB.** Maximum of **8 without** clear evaluation/discussion of the debate If only describing the debate, maximum of **2 marks** If only evaluating the debate with no core study evidence cap at **7 marks**

5. Discuss the usefulness of psychological research placed in the developmental area. Support your answer with evidence from appropriate core studies. **(15)**

Mark Scheme

Discuss the usefulness of psychological research placed in the developmental area. Support your answer with evidence from appropriate core studies. [15] Reasons why research placed in the developmental area **is useful** are likely to include: • Findings can inform us about how external factors can influence our behaviour. • Findings allow for practical applications to be developed to help manage behaviours. • If the study is conducted in a participant's natural environment, the study will be high in ecological validity. • If an experiment is used, single variables can be isolated and tested to allow cause and effect conclusions to be drawn. • If the study uses a longitudinal design, there is an indication of how behaviour(s) develop over time. • If quantitative data is gathered, comparisons can be made, and practical applications developed. • If qualitative data are gathered, a detailed insight is gained into the topic being researched. Reasons why research in the developmental area **may not be useful**: • If samples are limited findings will lack generalisability. • If the research investigates a socially sensitive issue findings may have wider (negative) implications either for the individuals involved/participants or society in general. • If the study uses a snapshot design, there is no indication of how the behaviour(s) develop/continue over time. • If only one type of data is gathered usefulness is limited. • Any appropriate factors informing about the usefulness/ lack of usefulness of developmental area should be considered. Developmental area studies: Kohlberg, Lee et al, Bandura, Chaney, Freud	**15**	**12-15 marks** for a **thorough and balanced** discussion that is **relevant** to the demands of the question. Arguments are coherently presented with **clear understanding** of the points raised. A **range** (at least 3) points are considered and are well developed as part of the discussion. There is evidence of valid conclusions that summarise issues very well. Relevant **evidence is used to good effect** to support the points being made. There is consistent use of psychological terminology, and well-developed line of reasoning which is logically structured. Information presented is appropriate and substantiated. **8-11 marks** for a **good** and **reasonably balanced** discussion that is **mainly relevant** to the demands of the question. Arguments are presented with **reasonably clear understanding** of the points raised. A **range** of points are considered and some are developed as part of the discussion. There is evidence of valid conclusions that summarise issues well. Relevant **evidence is used mostly to good effect** to support the points being made. There is good use of psychological terminology in a response with reasonable structure. Information presented is largely appropriate. **4-7 marks** for a **limited** discussion that is has **some relevancy** to the demands of the question. Arguments are presented but with **limited understanding** of the points raised. There is evidence of attempts to draw conclusions. Relevant **evidence is used** as part of the discussion. There is some use of psychological terminology in a response with limited structure. Information presented is sometimes appropriate. **1-3 marks** for a **basic** discussion that is **rarely relevant** to the demands of the question. Arguments are presented but with **weak understanding** of the points raised. Relevant **evidence is weak or not apparent** at all. There is limited or no use of psychological terminology and structure is poor. Information presented in rarely appropriate. **0 Marks** – No creditworthy information. **NB.** Arguments for/against should be identified, explained and supported by appropriate evidence from a developmental area study. • If only one study used in the discussion cap at 7 marks. • If all points are made through the context of a study/studies (with no generic points), i.e. study-specific, then the answer should be capped at 7 marks.

Practical Application Q's & Answers

Why do Human Beings do Good Things?

Carlos Ramirez, a white man originally from Madrid in Spain, was standing on a subway platform in New York, when a young black man nearby had an epileptic seizure and rolled on to the track.

Hearing a train coming, whilst many American bystanders stood by doing nothing, Carlos impulsively jumped down to try to save the young man, only to realise that the train was approaching too fast.

At great risk to himself, Carlos jumped on top of the young man's body and pushed him down into a drainage ditch between the tracks. The train operator saw them, but it was too late to stop: five cars of the train passed over their bodies. Neither of them were injured but because he was delayed, Carlos missed an important job interview.

When asked why he had done it, Carlos said, 'I just saw someone who needed help. I did what I felt was right.' A great example of altruism.

1. From Piliavin et al.'s (1969) Subway Samaritan study, outline what 'diffusion of responsibility' means and how it relates to this article. **(3)**

Mark Scheme

From Piliavin et al.'s (1969) Subway Samaritan study, outline what 'diffusion of responsibility' means and how it relates to this article. Diffusion of responsibility: Setting: • More people present reduces help • Larger groups of bystanders lowers the chance of help Influence on behaviour: • Responsibility for helping is spread among those present • Less personal responsibility as expect others to help Possible links to article: • Large number of bystanders to the incident which happened at a train station, no one else helped as they believed others present would help the man who had a seizure • The responsibility of helping the man who fell onto the tracks was shared by 'many American bystanders' • Other appropriate outlines/links to the article should be credited.	3	**3 marks –** For a good answer that shows A clear understanding of 'diffusion of responsibility' including: • Reference to the situation 'more people reducing help' • Reference to how the setting influences an individual 'responsibility is shared/ expect others to help'. • A clear, accurate link to the article. **2 marks** – For a reasonable answer that includes two of the three points **1 mark –** For a basic answer that either shows a basic understanding of diffusion of responsibility Or Implies a link of diffusion of responsibility to the article **0 marks** – No or incorrect answer.

2. From Levine et al.'s (2001) study of cross-cultural altruism, outline what 'simpatia' means and how it relates to this article. **(3)**

Mark Scheme

From Levine et al.'s (2001) study of cross-cultural altruism, outline what 'simpatia' means and how it relates to this article. Answers could include: Simpatia • Simpatia is a cultural value where a culture favours helping and friendly behaviour • This cultural value is a norm in countries such as in Brazil, Mexico, El Salvador, Costa Rica or Spain • As opposed to non-simpatia countries such as America. Possible links to article: • In this article Carlos Ramirez is from Madrid in Spain which has a culture of simpatia which could explain why he was more likely to offer help than someone from New York. Other appropriate outlines/links to the article should be credited.	3	**3 marks –** For a good answer that shows: • A clear understanding of 'simpatia' (*cultural value* of friendly, nice, agreeable etc., over productivity, self) • Further elaboration of simpatia i.e. cultures with/ without the value • A clear and accurate link to the article. **2 marks –** For a reasonable answer that shows: • An understanding of the term 'simpatia' e.g. friendly/helpful culture • A link to the article. **1 mark –** For a basic answer that: Either: • Merely defines the term 'simpatia', i.e. there is no attempt to link to the article. Or: • Shows some understanding of the term 'simpatia' with the use of the article but it is implied rather than explicit. **0 marks** – No or incorrect answer.

3. Explain how this article relates to the social area of psychology. Support your answer with evidence from the article. **(4)**

Mark Scheme

Explain how this article relates to the social area of psychology. Support your answer with evidence from the article. Likely answers: Social area: The social area holds that the thoughts, feelings and behaviours of individuals are influenced by the actual, imagined or implied presence of others (1) ***Good understanding*** The social area looks at how people interact with one another and how their behaviour can be influenced by others. (1) ***Good understanding*** The social area looks at how people communicate with each other, how they interact and how they behave in groups (1) It therefore looks at the behaviour of the individual within a context of interrelationships with others. (1) ***Developed understanding*** Possible links to article: There were a large number of bystanders on the subway when the man fell (what) and none of the American bystanders helped (who) On the platform in New York a young man had an epileptic seizure and rolled on to the track' (what) This led Carlos to demonstrate altruistic behaviour (who) • Other appropriate explanations and links to article should be credited.	4	**2 marks** for a clear and accurate explanation showing a **developed** understanding of the social area **1 mark** for an explanation showing a **good understanding** of the social area *Plus* **2 marks** clear and relevant link using supporting evidence of why the article could be placed in the social area (what and who). **1 mark** for a weak but relevant link using supporting evidence of why the article could be placed in the social area (who or what) **0 marks –** No creditworthy information.

4. Outline the results from Piliavin et al.'s (1969) Subway Samaritan study and briefly explain how these results may relate to the article. Support your answer with evidence from the article. **(7)**

Mark Scheme

Answer	Mark	Guidance
Outline the results from Piliavin et al.'s (1969) Subway Samaritan study and briefly explain how these results may relate to the article. Support your answer with evidence from the article. The cane victim received spontaneous help 95% of the time (62/65 trials) The drunk victim received spontaneous help 50% of the time (19/38 trials). White victims received spontaneous help 100% / Black victims spontaneous help 86% In all but 3 cane trials the victim received help before the model stepped in, Less spontaneous help was given in drunk condition/more spontaneous help was given in cane condition Median time for help in non-model trials was 5 seconds for cane and 109 seconds for drunk Results differed between teams of models and victims In 60% of (81) cane trials the victim received help from more than one person (no difference in race or drunk/ill victims) 90% of first helpers were males (60% of those in CA were male) 64% of first helpers were white Slight same race helping: 68% of spontaneous helper with white victims were white/ 50% of spontaneous helpers of black victims were white In drunk condition mostly black people helped the black victim. The early model elicited more help (9 times) than the later model (3) The critical area model elicited the same as the adjacent area model No one left the car on any trial On 21 of 103 trials (22%) someone left the critical area No diffusion of responsibility was found, response times were faster with larger groups. People left the area in a higher proportion of drunk trials than cane trials People were more likely to leave area if help not given before 70 seconds Slightly more people left the area with the black victim than white victim • Examples of comments (mostly from women): 'It's for men to help him', 'I wish I could help him—I'm not strong enough', 'I never saw this kind of thing before—I don't know where to look'. You feel so bad that you don't know what to do • More comments from passengers in the drunk than the cane trials. • More comments were made if no help was given within 70 seconds. *Links to article:* • Individuals are often willing to help those they see in need of help, regardless of race or colour. Carlos Ramirez was a white man who put himself at tremendous risk as he tried to save a young black man who fell on the train track. (links to results about race) • Spontaneous help was seen in the article as Carlos 'impulsively jumped down to save the young man', (links to results about spontaneous help found) • Other appropriate results /links to the article should be credited.	7	For the outline of the results of Piliavin al.'s study: **5 marks –** For an accurate outline of at least 5 different results or up to 3 results (2 elaborated) **4 marks –** For an accurate outline of at least 4 different results (or 2 elaborated) **3 marks -** For an accurate outline of at least 3 different results (or two results with one elaborated) **2 marks -** For an accurate outline of at least 2 different results or one elaborated result **1 mark -** For an accurate outline of at least one result **0 marks** – no creditworthy response. PLUS For application to the article: **2 marks** - For a relevant link which is clearly, if briefly explained. **1 mark** - For a relevant link which is briefly explained **0 marks** – no creditworthy response. **NB.** Exact quantitative findings are not required if suitable descriptions of the findings are given.

5. (a) Using your psychological knowledge, suggest and explain at least two ways in which individuals may be encouraged to help others from diverse social and cultural backgrounds. **(8)**

Mark Scheme

Using your psychological knowledge, suggest and explain at least two ways in which individuals may be encouraged to help others from diverse social and cultural backgrounds. Likely suggestions: • Use of **positive reinforcement** (rewards)/a token economy, e.g., medals, certificates, tokens to show helping others from diverse social and cultural backgrounds acceptable • **Vicarious reinforcement**, e.g., adverts/websites, TV programmes, books, etc showing how individuals may be encouraged to help others from diverse social and cultural backgrounds. • Use of **observational learning/modelling**, e.g., using popular celebrities and characters to show how individuals may be encouraged to help others from diverse social and cultural backgrounds. • **Punishment**, e.g., punishing individuals/children who fail to give help to others from diverse social and cultural backgrounds., e.g. fine those who don't help, prevent play times, deny those who don't help going on school/works trips, etc. • **CBT**/changing attitudes/schemas, e.g., individuals see that the benefits of being helping those from diverse social and cultural backgrounds outweigh the costs. • Other appropriate suggestions based on psychological knowledge should be credited.	**8**	**7-8 marks** - A **good** standard of knowledge and understanding of what could be done/methods to encourage individuals to help others from diverse social and cultural backgrounds *(what)*. There is very effective application of psychological knowledge within these suggestions to explain the purpose of the suggestions *(why)*. The suggestions are largely accurate and several details have been included about how they could be implemented and developed *(how)*. **At least two suggestions** are covered. **5-6 marks** - A **reasonable** standard of knowledge and understanding of what could be done/methods to encourage individuals to help others from diverse social and cultural backgrounds *(what)*. There is effective application of psychological knowledge within these suggestions to explain the purpose of the suggestions *(why)*. The suggestions are mostly accurate and some vague details have been included about how they could be implemented and developed *(how)*. **Two suggestions** are covered. **3-4 marks** – A **limited** knowledge and understanding of what could be done/methods to encourage individuals to help others from diverse social and cultural backgrounds *(what)*. There is some application of psychological knowledge within these suggestions to explain the purpose of the suggestions *(why)*. This may be implicit rather than explicit. The suggestions are somewhat vague and lack in detail relation to how they might be implemented *(how)*. **1-2 marks** – A **basic** knowledge and understanding of what could be done/methods to encourage individuals to help others from diverse social and cultural backgrounds *(what)*. There is weak application of psychological knowledge within these suggestions, possibly with little or no information relating to either the *(why)* or the *(how)*. The suggestions will have limited accuracy. **0 marks –** No creditworthy information. **N.B.** *To reach the top two bands the candidate must refer to the what, how and why aspects of any suggestions. If only one suggestion is made then a maximum of 4 marks to be awarded. Award marks in line with the descriptors above.*

(b) Evaluate the suggestions you have made in part (a) using your knowledge of psychology. **(10)**

Mark Scheme

Evaluate the suggestions you have made in part (e) using your knowledge of psychology. Evaluation might refer to: • Usefulness (including practicality, funding issues, effectiveness, appropriateness). • Ecological validity/validity. • Reliability. • Ethics. • Social sensitivity. • Scientific methodology. • Nature/nurture. • Freewill/determinism. • Individual/situational. • Other appropriate issues should be considered and credited accordingly.	**10**	**GOOD 9-10 marks** for demonstrating **good** evaluation that is relevant to the demand of the question. The arguments are coherently presented with clear understanding of the points raised. A **range** of appropriate evaluation points are considered. The evaluation points are in context and supported by relevant evidence of the description given in 10e. More than one suggestion is evaluated. **REASONABLE 6-8 marks** for demonstrating **reasonable** evaluation that is mainly relevant to the demand of the question. The arguments coherently presented in the main with reasonable understanding of the points raised. A **range** of appropriate evaluation points are considered. The evaluation points are mainly in context and supported by relevant evidence of the description given in 10e. **LIMITED 3-5 marks** for demonstrating **limited** evaluation that is sometimes relevant to the demand of the question. The arguments may lack clear structure/organisation and show limited understanding of the points raised. The evaluation points are occasionally in context and supported by relevant evidence of the description given in 10e. **BASIC 1-2 marks** for demonstrating **basic** evaluation that is rarely relevant to the demand of the question. Any arguments lack clear structure/organisation and show a very basic understanding of the points raised. The evaluation points are not necessarily in context and are not supported by relevant evidence of the description given in 10e. **0 marks** – No creditworthy response. **N.B.** • If **only one suggestion** is evaluated then a **maximum of 6 marks** to be awarded. If only one evaluation point is made but is done well it can achieve a maximum of 4 marks. Award marks in line with the descriptors. • Make sure points credited in 10(e)are not double-credited in this question part, e.g. double-crediting the purpose of the suggested improvement. • Make sure evaluation points refer to improvements that have been suggested in 10(e), i.e. are not new suggestions which the candidate then evaluates.