

Mark Scheme Results

Winter 2012

GCSE

GCSE Psychology (5PS01/01)

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.
- Can only credit material in appropriate spaces unless candidate indicates otherwise (with stars / arrows)
- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed.

The strands are as follows:

- (i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear
- (ii) select and use a form and style of writing appropriate to purpose and to complex subject matter
- (iii) organise information clearly and coherently, using specialist vocabulary when appropriate.

/	means that the responses are alternatives and either answer should receive full credit.
()	means that a phrase/word is not essential for the award of the mark, but helps the examiner to get the sense of the expected answer.
[]	words inside square brackets are instructions or guidance for examiners.
Phrases/words in bold	indicate that the <u>meaning</u> of the phrase or the actual word is essential to the answer.
TE	(Transferred Error) means that a wrong answer given in an earlier part of a question is used correctly in answer to a later part of the same question.
OWTTE	means Or Words To That Effect
ORA	means Or Reverse Argument

Unit 1: Perception and Dreaming

Topic A: How do we see our world?

Question Number	Answer	Mark
1	B Optic nerve	AO2 = 1 (1)

Question Number	Answer	Mark
2	A Visual cortex	AO2 = 1 (1)

Question Number	Answer	Mark
3	A Similarity	AO1 = 1 (1)

Question Number	Answer	Mark
4	E Proximity	AO1 = 1 (1)

Question Number	Answer	Mark
5	D Closure	AO1 = 1 (1)

Question Number	Answer	Mark
6	B Figure-ground	AO1 = 1 (1)

Question Number	Answer	Mark
7	A The nearby one	AO2 = 1 (1)

Question Number	Answer	Mark
8	C Size constancy	AO2 = 1 (1)

Question Number	Answer	Mark
9	D Stereopsis	AO2 = 1 (1)

Question Number	Answer	Mark
	<p>Graham closes one eye and with his other eye looks at the X in the image above and moves it towards himself. Whilst moving the image towards himself, Graham finds that he cannot see the dot. Explain why this has happened.</p> <p>Answer</p>	
10	<p>1 mark per valid point/elaboration. OWTTE</p> <p>(The image of the dot is falling on the) blind spot (test); this area (of the retina) has no rods/cones/photoreceptors; so it cannot detect light/an image;</p> <p>Look for other reasonable ways to explain the above.</p> <p>Ignore all responses about stereopsis. Ignore all simple descriptions eg 'the dot goes away'.</p>	AO2 = 2 (2)

Question Number	Answer	Mark
	<p>When Khan chose verbal labels in the two conditions (such as 'chicken' for birds and 'rat' for furry animals) he didn't match the words very well. Suggest one reason why the words 'chicken' and 'rat' were not well matched.</p> <p>Answer</p>	
11(a)	<p>The answer must be about words (and their meaning) Ignore all references to similarities between animals.</p> <p>rat much shorter word than chicken; rat is a simpler word than chicken; rat has one syllable;</p> <p>Look for other reasonable marking points.</p>	AO3 = 1 (1)

Question Number	Answer	Mark
11(b)(i)	<p>If there is more than one animal named, accept only the first.</p> <p>It must be a word from the box so only accept:</p> <p style="padding-left: 40px;">Hamster; Cat; Mouse; Bat;</p> <p style="padding-left: 120px;">eg <u>reject</u> 'rabbit'</p> <p>Ignore spelling. Acceptable spellings include:</p> <p>amster hampster hamstor hampstor hammy hampistor moose mice</p>	<p>AO3 = 1</p> <p>(1)</p>

Question Number	Answer	Mark
11(b)(ii)	<p>Explain why your new word would be a better match.</p> <p>Although you will be able to see bi, you are <u>only</u> marking bii.</p> <p>1 mark per valid point/elaboration. OWTTE</p> <p><i>Justification for 'hamster'</i> it's long (like 'chicken'); it has 7 letters (like 'chicken'); it is the same length as chicken; it is a difficult word like chicken; it's /furrier (<u>do not</u> accept just 'furry')/ nicer/less 'dirty'/softer/more pet like (animal than a rat);</p> <p><i>Justification for 'mouse'</i> it's /furrier (<u>do not</u> accept just 'furry')/ nicer/less 'dirty'/softer/more pet like (animal than a rat);</p> <p><i>Justification for 'cat'</i> it starts with 'c'; they are a similar size animal; it's /furrier (<u>do not</u> accept just 'furry')/ nicer/less 'dirty'/softer/more pet like (animal than a rat);</p> <p><i>Justification for 'bat'</i> it can fly/has wings (like a chicken);</p> <p>Look for other reasonable marking points. Do not credit justification for any other named animal.</p> <p>If bi is blank or incorrect but bii has a justification of an appropriate</p>	<p>AO3 = 1</p> <p>(1)</p>

	named animal (one of the above ONLY), the mark for bii can be given.	
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Question Number	Answer	Mark
11(c)	<p>1 mark per valid point/elaboration. OWTTE</p> <p>it is a control (group/condition); to see whether people are more likely to say duck/rabbit; to show it is the verbal label that affects what they see by having a group with no label/ 'whether or not' (it's the label that affects perception);</p> <p>No mark for 'fair test'/accurate <i>alone</i>. If used in a context that explains how it acts as a control then mark awarded for explanation. Do not credit 'to see if they see another different animal' as this is the function of a pilot study not a control group.</p> <p>eg: to work as a baseline/control to see if the duck or the rabbit is easier to see; (2 marks) it makes it a fair test so you can see if one animal is more likely to be seen anyway; (1 mark) so it's more accurate in case the duck was just more obvious; (1 mark)</p> <p>Look for other reasonable marking points.</p>	<p>AO3 = 2</p> <p>(2)</p>

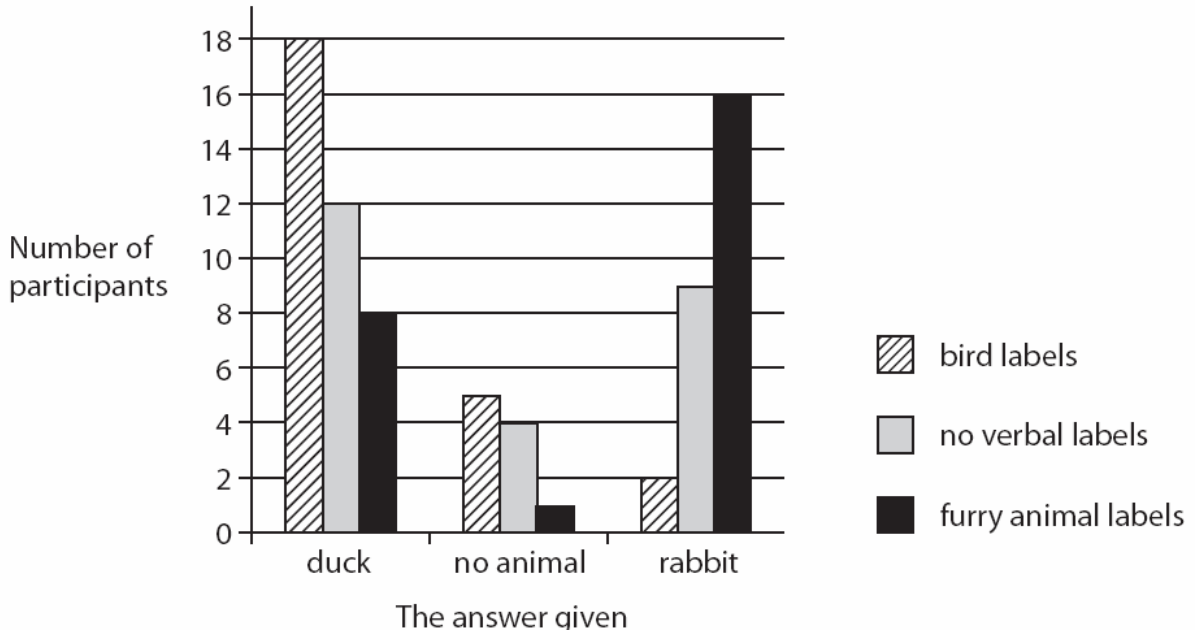
Question Number	Answer	Mark
11(d)	C Independent groups	<p>AO3 = 1</p> <p>(1)</p>

Question Number	Answer	Mark
11(e)	<p>Right to withdraw</p> <p>Reject descriptions. Accept misspellings eg 'write to withdrawl'</p>	<p>AO3 = 1</p> <p>(1)</p>

Question Number	Answer	Mark
11(f)(i)	<p>Name the type of graph that is shown above.</p> <p>Accept only the first answer</p> <p>Bar chart Also accept: bar bar graph</p> <p>Reject histogram/ line/linear graph and 'graph' on its own.</p>	<p>AO3 = 1</p> <p>(1)</p>

Question Number	What conclusions can you draw from the graph? Answer	Mark
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11(f)(ii)	(f) Khan's results are illustrated below.	AO3 = 3
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Any three points. Can be either three separate conclusions or one/two conclusions elaborated (eg with approximate numbers from the graph or reference to which bar is higher).

Figures are acceptable as 'conclusions' can be from graph and/or study.

Accept 'most' when referring to number of people who responded as equivalent to saying 'more' (rather than most overall).

(without labels) people are generally more likely to see a duck than a rabbit;
 labels affect the way the illusion is perceived;
 and this is in the direction Khan would have expected/bird labels make you more likely to see the duck/animal labels make you more likely to see a rabbit;
 bird labels have a bigger effect than animal labels;
 fewer people saw no animal at all;
 more people saw a duck (overall);

Look for other reasonable marking points.

(3)

Question Number	Describe Gregory's theory of illusions. Answer	Mark
12(a)	<p>1 mark per valid point/elaboration. OWTTE</p> <p>Accept drawings in place of names / types of illusions where this allows the student to earn a valid mark.</p> <p>Allow explained <i>examples</i> for max 3.</p> <p>Gregory's theory says we perceive depth using (linear) perspective/(using) depth cues/interpret 2D as 3D/size constancy/relative size; so it explains illusions as misunderstanding depth cues; <i>eg the fins in the Muller-Lyer illusion appear to have (linear) perspective; the Muller-Lyer is understood like the inside and outside of a room; eg the 'train lines' lines in the Ponzo illusion appear to have (linear) perspective;</i> <i>in the Ponzo illusion the horizontal bars/sleepers seem different because of size constancy/ (linear) perspective;</i> <i>the lower one looks smaller as the lines make it seem closer so it is scaled down; ORA</i> shapes in our environment affect the way learn to perceive depth; some explanation of use of perceptual hypotheses;</p> <p>Look for other reasonable marking points.</p>	<p>AO1 = 4</p> <p>(4)</p>

Question Number	Evaluate Gregory's theory of illusions. Include both strengths and weaknesses in your answer. Answer	Mark
12(b)	<p>1 mark per valid point/elaboration. OWTTE</p> <p>Accept drawings in place of names / types of illusions where this allows the student to earn a valid mark.</p> <p>Max 3 for only strengths or only weaknesses.</p> <p>Only one basic relevant 'it explains...well' point - see first marking point below Only one basic relevant 'it is better than Gestalt...' point - see below</p> <p>Gregory's theory explains distortion illusions (well); better than Gestalt/physiological theory; (but) it can't explain some versions of the Muller-Lyer such as the one with circles; this shouldn't work according to Gregory's theory because there are no fins/ depth cues from the circles (but it does work); (elaboration mark) it can explain some ambiguous figures/the Necker cube/named eg of an illusion (only once); eg the Necker cube uses depth cues to suggest the box can either be 'inwards' or 'outwards'; (elaboration mark) it can explain a few fictions such as those making shapes from displaced lines as this provides a depth cue; although it doesn't explain most fictions very well; these are explained better by Gestalt theory which says they are</p>	<p>AO2 = 4</p> <p>(4)</p>

	misunderstandings of figure-ground; (elaboration mark) can't explain all illusions; Look for other reasonable marking points.	
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	<p>Wrong answers: YMCA therapy centre clinic surgery doctors surgery health clinic counselling clinic/agency private clinic at home lab/laboratory</p> <p>For any other answers send to review.</p>	
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Question Number	Answer	Mark
20	C Objective	A03 = 1 (1)

Question Number	Answer	Mark
21	D Qualitative	A03 = 1 (1)

Question Number	Answer	Mark
22	C Reliable	A03 = 1 (1)

Question Number	Answer	Mark
23	C Privacy	A03 = 1 (1)

Question Number	Answer	Mark
24	D Confidentiality	A03 = 1 (1)

Question Number	<p>Neurons are the cells that make up our nervous system and communicate with one another to send messages around the brain and body.</p> <p>How do neurons communicate with one another? You can use a diagram to help you explain your answer.</p> <p>Answer</p>	Mark
25	<p>Allow marks for descriptions of either/both synaptic transmission and the electrical impulse.</p> <p>Look for the following terms used correctly in the explanation: neuron, dendrite, axon, electrical impulse, terminal button, synaptic gap/cleft, receptors, neurotransmitter, reuptake.</p> <p>However, each of these terms will not earn a mark simply for being there.</p> <p>Allow use of a diagram to assist explanation. Where this is done effectively, the <i>explanation</i> can gain full marks.</p> <p>A diagram alone with or without labels and no explanation at all, max 1.</p> <p>A diagram with annotations <i>could</i> earn full marks.</p> <p>0 marks No rewardable material.</p> <p>1 mark Brief or muddled description of synaptic transmission or a suitable diagram (with or without labels) with no annotation.</p> <p>2-3 marks Basic/partially accurate written explanation (with or without diagram).</p> <p>4 marks Adequate (written) explanation of synaptic transmission (with or without diagram). May be some errors or omissions.</p> <p>5 marks Accurate (written) explanation of synaptic transmission (with or without diagram).</p> <p>eg</p> <p>1 mark examples: (four of them)</p> <ul style="list-style-type: none"> ➤ The chemicals go from one neuron to the next. ➤ The neurotransmitters go from one neuron to the next and back again so make the next neuron work. ➤ An electrical impulse goes along the neuron. ➤ The chemicals fit like a lock and key. <p>2 mark examples: (two of them)</p> <ul style="list-style-type: none"> ➤ The neurotransmitters go from one neuron to the next across the gap to make the next neuron work. ➤ The impulse travels down the axon then triggers a message to the next cell. 	AO1 = 5

3 mark examples: (three of them)

- Neurotransmitters come out of the first neuron. They cross the gap to the next neuron and join to it. This makes the next neuron send a message.
- An electrical message in an axon goes to the end of the neuron and makes the chemicals cross the gap to make the next neuron work.
- A neuron makes neurotransmitters to come out into the synaptic gap and if they fit into receptors on another neuron an electrical message carries on.

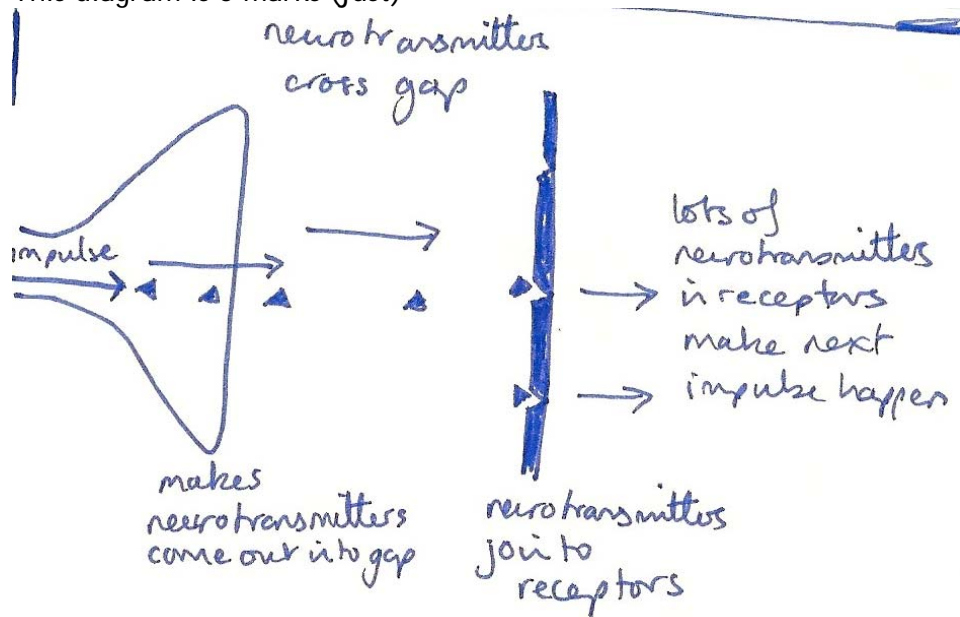
4 mark example:

- An impulse in the first neuron makes chemicals come out into the synaptic gap. They cross the synaptic cleft and join to receptors on the next neuron. This makes the next neuron send a new impulse.

5 mark example:

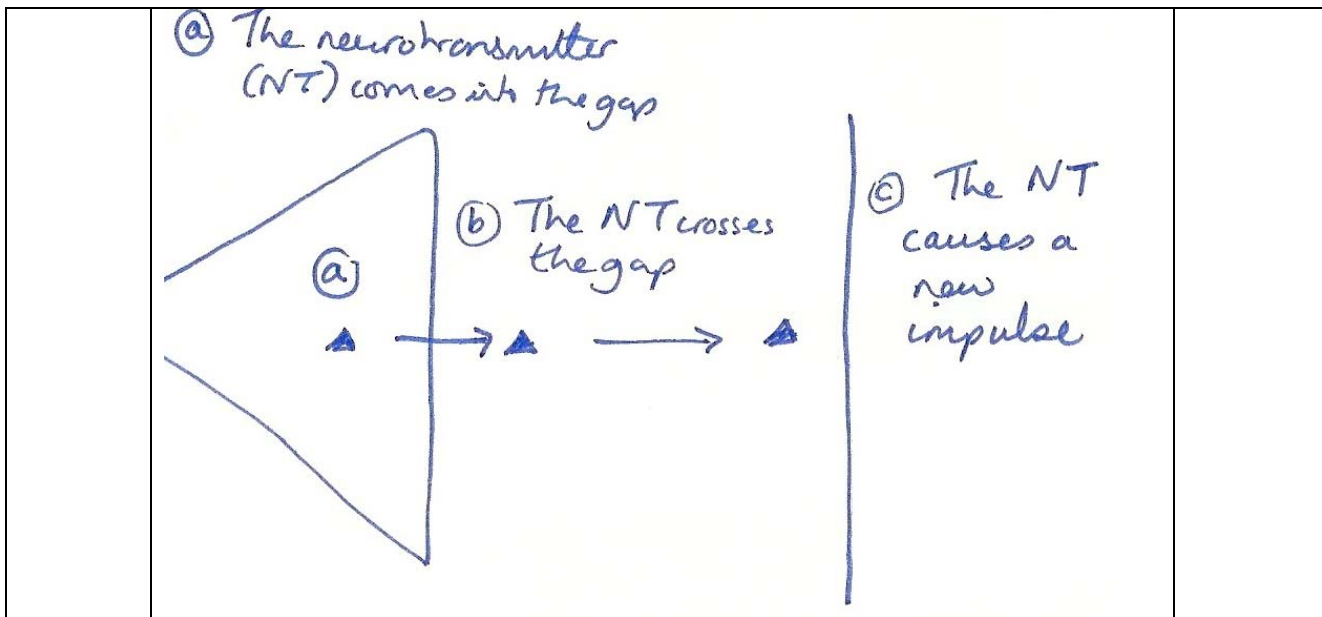
- An electrical impulse travels along an axon to the terminal button. Neurotransmitters come out into the synaptic gap and join to receptors on dendrites making a new impulse.

This diagram is 5 marks (just)



(5)

2 marks [would be 3 if more than one neurotransmitter causing next impulse]



Question Number	Padma is interested to know whether her little brother John dreams about what he wants to do in the future. She is going to study John in detail using different techniques such as interviewing him and asking him to keep a diary. What is Padma's research method? Answer	Mark
26(a)	Accept only first answer. Allow description/explanation of case study before stating 'case study'. Case study Reject any other answer (the only correct answer is 'case study')	AO3 = 1 (1)

Question Number	Suggest one aim for Padma's investigation. Answer	Mark
26(b)	Accept aim in general terms or directly related to John. Must be about dreaming (not <i>just</i> about his future). Accept interpretation of 'future' to mean John's future job/profession/career/what he is going to be (but not other specifics unless examples stated as 'his future'). Accept aims described in terms of differences or correlations. Accept answers similar to stem or written as questions. Do not accept aims relating to finding out about <i>why</i> John is dreaming about his future or whether his dreams come true. eg To find out whether dreams are related to what we want to do in the future; Does John dream about what he will do when he grows up? Whether John dreams about what he plans to do next week.	AO3 = 1 (1)

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Question Number	Write one question which Padma could use to collect quantitative data about John's dreams. Answer	Mark
26(c)	<p>Accept any closed question relating to dreams or John's future plans.</p> <p>Closed questions only have to have a limited number of answers eg yes/no, numbers, few possibilities eg job names, restricted choices eg good/fair/poor, ratings eg best/better/worse/worst (although the options do not have to be stated by the candidate). If answers to the question could be closed or open, allow mark.</p> <p>Accept first question offered.</p> <p>eg 'Did you dream last night?'; 'What do you want to be when you grow up?' 'How often do you dream about tomorrow?' 'Do you like dreaming about your future?'</p>	<p>A03= 1</p> <p>(1)</p>

Question Number	When she has finished her investigation of her brother, Padma wants to improve the generalisability of her findings. What could she do? Answer	Mark

26(d)	<p>Answer must imply more Ps or different groups of people (eg age/gender)</p> <p>No marks for repeating the same study (as about reliability) unless clearly on <u>someone else</u> so 'do another young boy' only gets 1 mark. Ignore suggestions about using another method, simply mark any comments relating to sample.</p> <p>Any 2 factors for 2 marks, or one factor explained for 2 marks.</p> <p>eg get a bigger sample/ use more people; (1 mark) so with a variety of people findings could be said to apply more widely; test a girl; (1 mark) test more people of different ages; (2 marks) test some girls and children from other cultures; (2 marks)</p>	<p>AO3 = 2</p> <p>(2)</p>
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