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Mark Scheme (Results)

June 2015

Pearson Edexcel GCE in Psychology (6PS01/01) Unit 1: Social and Cognitive Psychology

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Summer 2015

General Guidance on Marking– GCE Psychology

All candidates must receive the same treatment.

Examiners should look for qualities to reward rather than faults to penalise. This does NOT mean giving credit for incorrect or inadequate answers, but it does mean allowing candidates to be rewarded for answers showing correct application of principles and knowledge.

Examiners should therefore read carefully and consider every response: even unconventional answers may be worthy of credit.

Candidates must make their meaning clear to the examiner to gain the mark. Make sure that the answer makes sense. Do not give credit for correct words/phrases which are put together in a meaningless manner. Answers must be in the correct context.

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

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

Using the mark scheme

The mark scheme gives:
- an idea of the types of response expected
- how individual marks are to be awarded
- the total mark for each question
- examples of responses that should NOT receive credit (where applicable).

1 / means that the responses are alternatives and either answer should receive full credit.
2 ( ) 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.
3 [ ] words inside square brackets are instructions or guidance for examiners.
4 Phrases/words in **bold** indicate that the meaning of the phrase or the actual word is **essential** to the answer.
5 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.

Quality of Written Communication

Questions which involve the writing of continuous prose will expect candidates to:

- show clarity of expression
- construct and present coherent arguments
- demonstrate an effective use of grammar, punctuation and spelling.

Full marks can only be awarded if the candidate has demonstrated the above abilities.

Questions where QWC is likely to be particularly important are indicated "QWC" in the mark scheme BUT this does not preclude others.

Unit 1: Social and Cognitive Psychology

Section A

Question Number	Question	
1	Mr Faraz wants to compare the levels of attendance between his psychology group and those of Mr Simon who teaches a different psychology group. Which of the following designs would Mr Faraz be using in his investigation?	
	Answer	Mark
	(x)A Repeated measures **(x)B** Questionnaire **(x)C** **Independent groups** **(x)D** Correlation	**(1 AO3)**

Question Number	Question	
2	Mr. Faraz finds that over a period of six months the most frequent attendance for his group is 18 out of 22 Which measure of central tendency is this also known as?	
	Answer	Mark
	(x)A Mean **(x)B** Median **(x)C** **Mode** **(x)D** Range	**(1 AO3)**

Question Number	Question	
3	Which of the following is a suitable directional (one tailed) hypothesis for Mr. Faraz's investigation?	
	Answer	Mark

	(x) A There will be a difference in the levels of attendance between the two psychology groups. **(x)B Students' level of attendance will be higher in Mr. Faraz's group than Mr. Simon's group** **(x)C** Any difference in the levels of attendance between the two psychology is due to chance **(x)D** The level of attendance of the students will depend upon the teacher of the groups	**(1 AO3)**

Question Number	Question	
4	The independent variable in this particular investigation	
	Answer	Mark
	(x)A level of attendance in the two groups **(x)B whether the teacher is Mr Faraz or Mr Simon** **(x)C** The average level of attendance in each group **(x)D** whether the teacher sets homework or not	**(1 AO3)**

Question Number	Question	
5	Which of the following statements about levels of processing theory is **false**?	
	Answer	Mark
	(x)A Information can be processed deep or shallow way **(x)B Information that is processed at a deep level is less likely to be remembered.** **(x)C** Information that is processed at a shallow level is less likely to be remembered. **(x) D** The level of processing affects how much material is remembered.	**(1 AO1)**

Question Number	Question	
6	Storage and retrieval of information in the brain is known as	
	Answer	Mark
	(x)A memory **(x)B** forgetting **(x)C** encoding	**(1 AO1)**

	(x)D rehearsal	

Question Number	Question	
7	Which of the following theories is supported by Godden and Baddeley's (1975) study?	
	Answer	Mark
	(x)A **Cue dependency** **(x)B** Interference **(x)C** Trace Decay **(x)D** Displacement	**(1 AO1)**

Question Number	Question	
8	Which feature in cognitive psychology is referred to in the diagram below? *INPUT > PROCESSING > OUTPUT*	
	Answer	Mark
	(x)A Cue dependency **(x)B** **Information processing** **(x)C** Elaborative rehearsal **(x)D** Context cues	**(1 AO1)**

Question Number	Question	
9	Which of the following theories considers that membership of a group is all that is needed for prejudice to occur?	
	Answer	Mark
	(x)A **Social identity theory** **(x)B** Agency theory **(x)C** Authoritarian personality theory	**(1 AO1)**

Question	Question	

Number		
10	In Milgram's (1963) experiment on obedience the switches on the shock generator went up in intervals of	
	Answer	Mark
	(x) A 5 volts **(x)** B 10 volts **(x)** **C 15 volts** **(x)** D 20 volts	**(1 AO1)**

Question Number	Question	
11	Which two of the following are true about Milgram's (1963) experiment on obedience?	
	Answer	Mark
	(x)A It was conducted in a rundown office block **(x)B** Rebellious stooges were present **(x)C** The experimenter was not seen as a legitimate authority figure **(x)D** **It was conducted at a respected university** **(x) E** **The participants were paid before the start of the experiment.**	**(2 AO1)**

Section B

Question Numbers	General Instructions
	Marking points are indicative, not comprehensive and other points should be credited. In each case consider 'or words to that effect'. Each bullet point is a marking point unless otherwise stated, and each point made by the candidate must be clearly and effectively communicated.

Question Number	Question	
12 (a)	Outline the procedure of Hofling's (1966) study of obedience.	
	Answer	Mark
	Must be procedure only, no credit for aim/results/conclusions • Identical boxes of capsules were placed in 22 wards of both public & private psychiatric hospitals in the USA/eq; • The capsules were, in fact, placebos (consisting of glucose). But the containers were labelled ' 5mg capsules of Astroten'/eq; **(2 marks)** • The label also indicated that the normal dose is 5mg with a maximum daily dose of 10mg/eq; • While the nurse was on duty, a 'doctor' (a confederate 'Dr Smith from the psychiatric department') instructed the nurse by telephone, to give 20mg of Astroten to his patient, a Mr Jones **(1st mark)**, as he was in a desperate hurry & the patient needed the capsules/eq; **(2nd mark)** • He said that he would come in to observe Mr Jones in 10 minutes time & that he would sign the authorisation when he got there/eq; • A real doctor was posted nearby, unseen by the nurse, & observed what the nurse did following the telephone call/eq; • The control group of 22 student nurses/11 graduate nurses/33 nurses was given a questionnaire asking what they would do under those circumstances/eq; • The experiment was stopped if the phone call went on for more than 10 minutes or the nurse refused to administer the drug three times/eq; **Look for other reasonable marking points.**	**(5 AO1)**

Question Number	Question	
12 (b)	Outline **one** methodological strength of Hofling's study of obedience. Do not use an ethical issue in your answer.	
	Answer	Mark
	No credit for weaknesses or ethical issues. If more than one strength then mark all and credit the best. No credit for the mere use of a technical term, e.g. ecological validity • Hofling used a field experiment which meant it was high in (ecological) validity as nurses were being studied in their normal environment doing their usual work so can be applied to real life/eq; **2 marks** • Hofling used a field experiment which meant it was high in (ecological) validity as it was a real hospital/eq; • The same procedure was used across different hospitals which meant the study could be replicated/eq; • Less chance of any demand characteristics as the nurses had no prior knowledge of the study/eq; **Look for other reasonable marking points**	**(2 AO2)**

Question Number	Question	
12 (c)	In their study of obedience, Hofling et al (1966) did not get informed consent from the nurses. Explain why this is a weakness of Hofling et al's (1966) study of obedience.	
	Answer	Mark
	No credit for strengths No credit for other ethical guidelines unless they are clearly linked to the lack of informed consent Must make reference to study to get both marks • The nurses were unaware they were part of a study **(1st mark)** which means they couldn't withdraw from the experiment/eq; **(2nd mark)** • The nurses needed to know what was being done to them and as they were unaware it may (and did) cause anxiety to the nurses/eq; • This may mean that the nurse – doctor relationship becomes strained in the future as they may feel the doctors deemed it unnecessary to tell them/eq; • The nurses were unaware they were part of a study **(1st**	**(2 AO2)**

	mark) which breaks guidelines which states experimenters must gain their participants permission/eq; **(2nd mark)** **Look for other reasonable marking points**	

Question Number	Question	
13 (a)	You will have learned about one of the following studies in detail in cognitive psychology: • Peterson and Peterson (1959) • Craik and Tulving (1975) • Ramponi et al (2004) Choose **one** study from the list Describe the conclusions of your chosen study.	13(a) and (b) in to be clipped
	Answer	Mark
	The answer must describe conclusions of one of the three specified studies or zero marks. If more than one study is described then mark all and credit the best. No credit for aim, procedure or results. E.g. Craik and Tulving **(NOTE: There are several experiments within the Craik & Tulving paper, if the conclusions do not match the ones present here and you are unsure whether they refer to a part of the study which you do not know, please ask for advice)** • The researchers concluded that deeper processing of information results in more durable memory/eq; • This demonstrates elaborative rehearsal is more effective than pure maintenance rehearsal in improving memory recall/eq; • Semantic processing involves the most cognitive work so thinking about the meaning of the words leads to them being remembered best/eq; • Semantic processing, which involves thinking about the meaning of the words, leads to deeper processing which in turn leads to them being better remembered than shallow processing/eq; **(2 marks)** E.g. Peterson and Peterson • In the absence of rehearsal STM's duration is very short, even with very small amounts of information/eq; • If a more difficult distracter task is used it can be made	**(2 AO1)**

	even shorter/eq; • When rehearsal is prevented items in STM are lost quickly, even with very small amounts of information, demonstrating that STM's duration is very short/eq; **(2 marks)** E.g. Ramponi et al • Suggests that older adults' performance in intentional tests is impaired because they are less able to bind the encoded representations to the episodic context at study/eq; **(2 marks)** • Age affects the ability to encode meaningless information that we do not process at a deep level/eq; • Where two words are strongly associated with one another, one word will trigger the involuntary recall of the other regardless of how they were processed at the time of learning/eq; **(2 marks)** **Look for other reasonable marking points**	

Question Number	Question	
13 (b)	Explain **one** strength of the study you described in (a).	13(a) and (b) in to be clipped
	Answer	Mark
	TE: If 13(a) is blank/insufficient for identification but strength in (b) is clearly identifiable as an appropriate study from the list then full marks can be given. If the strength does not relate to the study stated in (a) but is clearly identifiable as a different study from the list then max 2 marks. If (a) is incorrect, e.g. a study not on the list, then 0 marks here If the strengths identified can be applied to any of the studies on the list (E.g. As it was a laboratory experiment, it has good control of variables, so clear cause and effect relationships could be established) then max 1 mark. If more than one strength is given mark all and credit the best. E.g. Craik and Tulving • The study does have a practical application to real life; giving meaning to material is one way of improving your memory/eq; **(1st mark)** Students can be taught to make notes which have meaning rather than just reading information that makes no sense to help them revise/eq; **(2nd mark)** For example they can re write out their notes rather than just re reading them/eq; **(3rd mark)**	**(3 AO2)**

	E.g. Ramponi et al • There were very strong controls such as random allocation to either intentional or incidental association/order of word pairs /eq;(**1st mark)** Random allocation meant each participant had an equal chance of being selected **(2nd mark)** so it was fairer than other sampling techniques such as opportunity sampling/eq; **(3rd mark)** E.g. Peterson and Peterson • The researchers had control over the variables such as presentation/timings of trigrams/eq; **(1st mark)** which makes the study easier to replicate and so it can be tested for reliability **(2nd mark)** other studies have also shown rehearsal to be necessary for recall giving it further reliability/eq; **(3rd mark)** **Look for other reasonable marking points**	

Question Number	Question	
14	There are three types of experimental methods (natural, laboratory and field). Compare **laboratory** experiments with **natural** experiments. Comparisons can include similarities and/or differences	
	Answer	Mark
	No credit for field experiments/ other methods / designs Credit use of appropriate examples which illustrate comparison Credit can be given for similarities and/or differences do not need both Each point must make some comparison to gain credit (see in italics) Max 2 for pure list of each method. • Laboratory carried out in an artificial setting *whereas* natural is in a realistic environment/eq; • Laboratory often has low ecological validity *but* natural has high/eq; • Laboratory involves manipulation of IV by the experimenter *however* natural has a naturally occurring	**(5 AO3)**

	IV not manipulated by the experimenter/eq; • Laboratory has greater control over extraneous variables *whereas* natural has less control over these variables/eq; • Laboratory are easier to replicate and test for reliability of results, because variables are controlled, *however* natural are less able to replicate due to lack of control over extraneous variables/eq; **(2 marks)** • *Both* could provide quantitative data making them objective and scientific/eq; **Look for other reasonable marking points**	

Question Number	Question	
15	The following four statements about BPS ethical guidelines are either true or false. Put a (x) in the correct box to indicate whether each statement is **true** or **false**.	
	Answer	Mark

Statement	**True**	**False**
Participants have the right to withdraw at any point during the study	**(x)**	
If there is deception then a thorough debriefing may make the study more ethical	**(x)**	
An experiment never goes ahead until fully informed consent has been obtained		**(x)**
A researcher who does not understand the implications of their study is still competent		**(x)**

(4 AO3)

Question Number	Question	
16 (a)	Explain the difference between the agentic state and autonomous state in Milgram's agency theory of obedience.	
	Answer	Mark
	Accept one sided argument for a max of 2 marks. Credit suitable examples • People might feel a moral strain in agentic condition	**(3 AO1)**

	because they are acting against their moral values **(1st mark)**. For example, participants in Milgram's 1963 study have shown great distress while obeying the orders **(2nd mark)**. In contrast, people don't usually feel moral strain in autonomous condition because they are acting on their moral values **(3rd mark)**/eq • In an agentic state we surrender our free will and conscience in order to serve the interests of the wider group whereas in the autonomous state we are free thinking and able to make our own decision/eq; **(2 marks)** • In the agentic state we see ourselves as primarily the agents of authority and only secondarily as individuals but in the autonomous state we see ourselves as having power and our actions as being voluntary/eq; **(2 marks)** • Moral strain is more likely to occur in the agentic state than the autonomous state/eq; • For example, when listening to instructions from our teacher and acting on them we are in an agentic state, however, if we choose to ask the teacher why these instructions benefit our learning, we are in autonomous state/eq **(2 marks)** **Look for other reasonable marking points**	

Question Number	Question	
16 (b)	Evaluate Milgram's agency theory. You must include at least one way the theory can be applied to real life	
	Answer	Mark

	Max 3 if no real life point made (see in italics) Max 1 for alternative theories • *Has application to real life i.e. used to explain the destructive obedience of soldiers during war/eq;* • *It accounts for why so many soldiers in WW2 followed orders without question. They saw themselves as agents for the person giving the orders, in this case Hitler/eq;* ***(2 marks)*** • Supported by Milgram's research when he showed that 65% of ordinary people would obey an authority figure, however, this study lacks ecological validity as the task of 'giving' electric shocks to a stranger is not something people encounter in everyday life /eq; ***(2 marks)*** • Supported by Hofling's findings on obedience of nurses where 95% (or 21/22) obeyed/eq; • Does not explain why some individuals obey and others don't (individual differences)/eq; • Milgram has neglected the minority of participants who did *not* obey him. 35% of ps did not go up to 450v. even though Milgram supposed they were in the same agentic state as those that did obey the authority figure/eq; **(2 marks)** • The idea of an identifiable agentic state has proved very difficult to pin down. Simply saying that someone is an agentic state because they obey and that they obey because they are in an agentic state is a circular argument/eq; • Disobedience of some can be explained by their personality (charismatic leadership) so suggesting that the causes of obedience are more complex than the theory suggests/eq; • The theory does not take into account other explanations for obedience such as strict parenting which could create an authoritarian personality/eq; **Look for other reasonable marking points**	**(5 AO2)**

Section C

Question Number	Question	
17	As part of the course requirements for social psychology you will have conducted a practical investigation using a survey. Evaluate your survey. Your evaluation may include: • validity • reliability • subjectivity	
	Answer	Mark
	Appropriate answers might include some of the following evaluative points, but this list isn't exhaustive. No credit for description of the survey Points about social desirability and ethics to be added. • Because the sample was opportunity we could have deliberately picked people we knew had the desired characteristics • We all used the same standardised instructions which increases the reliability of our study • It was carried out in a quiet classroom, which is a natural setting for the participant so increasing ecological validity • Some participants may have told others about the study so they may have tried to give us the results they thought we wanted • All participants were 16 to 18 so we cannot generalise the results to older people • As it was a survey we don't know if the participants behaviour was natural or a result of demand characteristics • Participant's answers could have been influenced by social desirability bias, as they will try to present themselves in a positive light. • Some participants might perceive the topic of the survey as upsetting, which may result in psychological harm	**(5 AO3)**

Level	Mark	Descriptor
	0	No rewardable material
Level 1	1-2 marks	Candidate makes at least one appropriate evaluative point. The answer may be brief, but should be **clear** for the 2 marks. Or a range of points, but all generic to the survey as a method.
Level 2	3-4 marks	Candidate gives at least two appropriate/contextualised evaluation points, both of which are **done well.** Or one evaluation point **described exceptionally well.**
Level 3	5 marks	A **thorough** answer, offering a range of appropriately contextualised evaluation points **described very well**. Given time constraints and limited number of marks, full marks must be given when the answer is reasonably detailed even if not all the information is present.

Question Number	Question	
18* QWC	Describe and evaluate **one** theory of forgetting **other than** cue dependent theory.	
	Answer	Mark
	Refer to levels at the end of the indicative content. **A01**: (Description) Knowledge and understanding of theory **A02**: (Evaluation) Application/strengths and weaknesses of theory Possible theories include: Trace Decay Displacement Interference theory Repression Appropriate answers might include the following knowledge points, but this list is not exhaustive. If more than one theory mark all and credit the best. The theory must be identifiable and not just general information about memory. **Reject Cue Dependent theory or theories of memory (MSM / Reconstructive/ LOP)** **Description** **Trace Decay** • Learning causes a physical change in the neural network of th memory system • A memory is created known as an activated neural path/ engram/active trace • If strengthened by rehearsal then the trace becomes a structu trace/physical change in the neural network	**6 A01** **6 A02**

- Without this rehearsal it will weaken or decay causing forgetti
- Forgetting is thus caused through disuse and the natural pass of time
- Once decayed a memory is lost forever

Displacement

- Capacity of STM is approx 7+/-2 and forgetting can be explair terms of this
- Despite the fact these items can be chunked to increase their capacity there are only a fixed number of slots for such inform
- Occurs when our STM reaches its capacity / is full so old infor is displaced or pushed out by new incoming information
- Material may not be lost if it was sufficiently rehearsed to pass LTM

Interference

- Forgetting occurs in LTM due to interference or confusion betw old and new memories
- Retroactive interference is when the learning of new informati interferes with the learning of older information
- Proactive interference is when the learning of old information interferes with the learning of new information
- In STM interference is important as it prevents rehearsal whic needed for information to go from STM to LTM
- E.g. trying to recall a phone number at the same time as bein asked a question means trying to respond to the latter may interfere with the rehearsal of the phone number

Look for other reasonable marking points.

Evaluation

Trace Decay

- Peterson and Peterson (1959) showed preventing rehearsa caused information to decay
- It could be that information has been interfered with than just simply decayed
- Waugh and Norman (1965) who set out to support trace decay actually concluded interference is the most likely cause of forgetting
- The information may actually just not be accessible due to of cues
- People do remember information from years ago even thou they have not recalled it recently
- The theory is difficult to test as participants who are tested after different time periods could actually be rehearsing an strengthening the trace

Displacement

- Glanzer et al (1967) found displacement to be a major fact

	forgetting so the theory does have experimental evidence • However they also found a small effect of time delay sugge a possible decay component • Waugh and Norman (1965) provide further support using t serial probe technique where rapidly presented digits were displaced by others that followed • Its not clear whether new material is overwriting or distrac attention from the older material • Its far from clear that displacement refers to a process dist from either decay or intererence suggesting forgetting can be fully explained by displacement alone **Interference** • Can be applied to revision techniques students are more likely to forget information from topics that are similar in nature • For example revision of psychology should not be followed by sociology as the learning of one will interfere with the recall of the other • The theory does have lots of experimental evidence to support it. Studies by Peterson and Peterson have demonstrated that forgetting is influenced by what happens in the time between learning and recall of information • The majority of supporting experiments are lab based and use nonsense syllables to demonstrate interference • The research therefore has low ecological validity and interference is much less easy to demonstrate when meaningful real-life material is used • Interference theory places too much emphasis on activity between the learning of information and recall, ignoring internal and external cues	

Level	Mark	Descriptor
		A01: (Description) Knowledge and understanding of theory **A02**: (Evaluation) Application/strengths and weaknesses of theory
	0	No rewardable material
Level 1	1-3 marks	Candidates will produce **brief answers**, making simple statements showing some relevance to the question. • Basic description of theory • Little or no attempt at the analytical/evaluation demands of the question. Lack of relevant evidence. The skills needed to produce effective writing will not normally be present. The writing may have some coherence and will be generally comprehensible, but lack both clarity and organisation. High incidence of syntactical and /or spelling errors.
Level 2	4-6 marks	Description OR evaluation only OR limited attempt at each OR one is in less detail than the other

		• Some relevant description though likely to be limited • Some attempt at evaluation e.g. refers to at least *one* from methodological, supporting studies and practical points in relation to actual theory Candidates will produce statements with some development in the form of **mostly accurate** and relevant factual material. There are likely to be passages which lack clarity and proper organisation. Frequent syntactical and /or spelling errors are likely to be present.
Level 3	7-9 marks	Candidate has attempted and answered ***both of the injunctions*** in the question **well**. • Description includes breadth and/or depth of component parts in appropriate detail. • Evaluation includes a range of factors from - supporting studies, application, and alternative explanations - **used appropriately.** The candidate will demonstrate most of the skills needed to produce effective extended writing but there will be lapses in organisation. Some syntactical and /or spelling errors are likely to be present.
Level 4	10-12 marks	Candidate has attempted and answered ***both of the injunctions*** in the question **very well**. • Description includes both breadth and depth of component parts in **appropriate detail with elaboration.** • Evaluation includes a range of factors from - supporting studies, application, and alternative explanations - **used with detail and clearly explained.** The skills needed to produce convincing extended writing are in place. Very few syntactical and /or spelling errors may be found. Very good organisation and planning. Given time constraints and limited number of marks, full marks must be given when the answer is reasonably detailed even if not all the information is present.