

INTERNATIONAL A-LEVEL PSYCHOLOGY PS04

Unit 4 Approaches and Application

Mark scheme

January 2022

Version: 1.0 Final Mark Scheme



Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

Section A: Approaches in Psychology

Total for this section: 30 marks

Question	Marking guidance			Total marks
01	Using your knowledge of operant conditioning, explain the type of reinforcement used by the teacher. Possible application: • The teacher is using negative reinforcement so that the children will tidy their desks (behaviour) to avoid a playtime ban after lunch (aversive stimulus). • Negative reinforcement increases the likelihood of tidying behaviour. • Lily and Adil tidy their desks as their teacher requests to avoid not being allowed to play/to prevent something unpleasant occurring. Credit other relevant application.			4 AO2=4
	Level	Descriptor	Marks	
	2	Detailed explanation of negative reinforcement applied to the stem. The answer is clear with appropriate use of terminology.	3–4	
	1	Explanation of negative reinforcement applied to the stem is limited, vague or muddled. The answer lacks clarity.	1–2	
	0	No creditable content.		
02	Briefly outline what cognitive psychologists mean by a schema. Content: A schema is a mental representation (1) that contains knowledge of an			2 AO1=2
	object/concept/situation/ the world etc (1) Credit alternative wording such as cognitive/mental structure/packages of knowledge			
03	 Briefly explain why schemas are important in cognitive processing. Possible content: Schemas play an important role in memorising information and are used to make sense of new incoming information ('effort after meaning'). Schemas help to simplify a complex social world, to take shortcuts and to predict what might happen based on past experience. Schemas are important to development according to Piaget. The unique environment of each child leads to the development of different schemas and a different understanding of the world. Schemas can sometimes distort perceptions/information/knowledge. 			2 AO3=2

	Accept reference to research as part of the explanation eg Bartlett 1932 War	
	of the Ghosts study (found participants added/changed material to a story to make it coherent with schemas).	
	2 marks for a clear explanation of the importance of schemas in cognitive processing.	
	1 mark for a limited, vague or muddled outline.0 marks no relevant content.	
04	Which one of the following best describes cognitive neuroscience?	1
	A Cognitive neuroscience focuses on biological processes involved in cognitive functions.	AO1=1
	B Cognitive neuroscience is only the study of biological processes in the brain.	
	 C Cognitive neuroscience is the study of the nervous system only. D Cognitive neuroscience links the workings of the brain and social psychology. 	
	Answer: A	
05	Discuss what researchers have learnt about the influence of neurochemistry on behaviour. In your answer, refer to a topic you have studied in psychology.	9 AO1=4
	Possible content: Neurotransmitters eg dopamine/serotonin are essential for the transmission of nerve impulses across the synapse. Neurochemistry is the study of chemical processes which take place in the nervous system.	AO1=4 AO2=2 AO3=3
	Chemical processes in the brain are responsible for many different aspects of psychological functioning.	
	 Scientific techniques such as single cell recording of neuronal activity and scanning techniques eg PET scanners are used to understand the actions of neurons in the CNS. 	
	An imbalance of certain chemicals in the brain may cause abnormal behaviours and thoughts.	
	Accept other relevant points.	
	Possible application:	
	Schizophrenia – an increase in the neurotransmitter dopamine is thought to be responsible for the positive symptoms of schizophrenia (D2 receptors). Low dopamine activity in the frontal parts of the brain (D1 receptors) may be the cause of negative symptoms of schizophrenia. A reduction in glutamate activity would also increase dopamine and lead to schizophrenic symptoms. Drugs that affect neurotransmitters have been developed to treat severe	
	mental disorders eg schizophrenia. <u>Sleep</u> – serotonin is important to emotional/behavioural states eg sleep. Noradrenaline pathways are important to sleep and arousal.	

REM sleep seems to depend on the brain neurotransmitter noradrenaline.

NREM sleep seems to depend on the brain neurotransmitter serotonin.

Accept any relevant topics.

Possible discussion:

- Insights from biochemistry provide important explanations of causes of psychological problems.
- Investigating the influence of neurochemicals on behaviour uses scientific methods making the investigation objective and replicable.
- Considering the influence of neurochemicals on behaviour favours the nature side of the nature-nurture debate. It overemphasises the importance of biological processes and heritability at the expense of environmental influences.
- Investigating the influence of neurochemicals adopts a reductionist explanation for human behaviour and thought. Psychological characteristics are reduced to biological processes.

Accept other relevant points.

Level	Descriptor	Marks
3	Knowledge of the influence of neurochemistry on behaviour is accurate. The application is appropriate. Discussion is clear and effective. The answer is clear and organised, with appropriate use of terminology.	7–9
2	Knowledge of the influence of neurochemistry on behaviour is evident but there are occasional inaccuracies/omissions. There is likely to be some application and/or discussion. The answer lacks clarity and organisation in places. There is some appropriate use of specialist terminology.	4–6
1	Knowledge of the influence of neurochemistry on behaviour is either limited or very limited. There is limited or no application/discussion. The answer lacks clarity and is poorly organised. Specialist terminology is either absent or inappropriately used.	1–3
0	No creditable content.	

06 Explain how social learning theory could be applied to Malik's footballing skills. 6 Possible application: AO2=6 Social learning theory is learning through observation and modelling – Malik observed his favourite team player Beck scoring goals and imitated the behaviour as he was copying the behaviour of a role model. • Malik was modelling because he observed Beck and practised the actions: he extracted information about these actions and made a decision to perform them. • Malik identified with Beck (who was a role model) because he was the same sex (male). Malik may have observed the consequences (crowd reaction) of Beck's behaviour (scoring a goal) and been vicariously reinforced to carry out the same behaviour. Mediational processes in learning apply to Malik eg deciding to perform an act, like practising Beck's technique. • Credit reference to 4 stage process of observational learning eg attention/retention/motivation/reproduction. Accept other relevant application points. Level **Descriptor Marks** The application of social learning theory is clear and 3 5-6 effective. The answer is clear with appropriate use of terminology. 2 The application of social learning theory is present. 3-4 The answer lacks clarity/use of terminology in places. 1 The application of social learning theory is limited or 1-2 very limited. The answer is vague/muddled. 0 No creditable content. 07 Evaluate social learning theory. 6 Possible evaluation: AO3=6 • There is research to support social learning theory eg Bandura et al (1961). • Use of controlled scientific studies to investigate social learning – objective, replicable etc. Social learning theory acknowledges the importance of cognitions and thought processes on learning. • Social learning theory can be applied to many areas such as education, aggression etc. Bandura's work has been criticised and this has implications for the theory. • Social learning theory cannot explain all behaviour eg where there is no observation, no role model etc. · Social learning theory is sometimes criticised for not taking sufficient note of biology. Accept other relevant points of evaluation.

Level	Descriptor	Marks
3	The evaluation of social learning theory is clear and effective. The answer is clear with appropriate use of terminology.	5–6
2	The evaluation of social learning theory is present. The answer lacks clarity/use of terminology in places.	3–4
1	The evaluation of social learning theory is limited or very limited. The answer is vague/muddled.	1–2
0	No creditable content.	

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cannot influence outcomes.

Question	Marking guidance				
80	Explain o	ne difference between hard determinism and soft determi	nism.	4	
	 A differ possibi Hard de behavio Soft de behavio 	content: rence between hard determinism and soft determinism lies lity of free will. eterminism excludes any possibility of free will and states our is caused by forces outside a person's control. eterminism, on the other hand, states that only some elements our are determined, and some elements are open to free oner relevant points that make the distinction clear. Intent embedded in examples.	that all ents of	AO1= AO3=	
	Level	Descriptor	Marks		
	2	Detailed explanation of a difference between hard and soft determinism. The answer is clear with appropriate use of terminology.	3–4		
	1	Explanation of a difference between hard and soft determinism is limited, vague or muddled. The answer lacks clarity.	1–2		
	0	No creditable content.			
09		plain one strength and one limitation of taking a hard dete in psychology.	erminist	4	
	 Possible strengths: A determinist approach is scientific and seeks to establish laws and theories There is evidence from eg disorders of the brain, that there are some behaviours that are out of our control (eg emotions, aggression etc) thus supporting determinism. Evidence from twin studies shows that genes determine some behaviours (biological determinism). 		ome etc) thus	AO3=	
	Accept ot	her relevant strengths.			
	1 mark fo	for a clear strength with some elaboration. or a limited, vague or muddled strength. no relevant content.			
	Hard deIf fully of	limitations: eterminism takes all control away from the person. determined this would mean people would lose motivation	as they		

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	The idea of determinism is not consistent with any justice system that presumes people choose how to behave.	
	 2 marks for a clear limitation with some elaboration. 1 mark for a limited, vague or muddled limitation. 0 marks no relevant content. 	
	Accept other relevant limitations.	
10	What is meant by the empirical method in psychology?	2
	Possible content: Concerned with gaining knowledge through direct sensory experience/objectively. Data gathering using scientific, controlled research methods eg observation, experiment.	AO1=2
	 2 marks for a clear outline with some elaboration. 1 mark for a limited, vague or muddled outline. 0 marks no relevant content. 	
11	Discuss the holism and reductionism debate in psychology. Refer to Tai and Kim in your answer.	20
	 Possible content: Holism argues that the 'whole is greater than the sum of the parts' which means to understand a person the whole of that person has to be considered. Analysing component parts such as the brain or a personality trait does not allow an understanding of the whole person. Reductionists believe that the best way to understand humans is to analyse component parts. A reductionist approach is similar to other sciences such as physics and biology. Levels of explanation – the highest/holistic level to lower levels eg atoms. Knowledge of biological reductionism and stimulus-response (environmental) reductionism. Credit other relevant points. Possible application: Tai is arguing against biological reductionism and for a more holistic explanation as he states that 'humans are too complex', eg Maslow believed that the 'entire' human was more than just the collection of biology, 	AO1=8 AO2=4 AO3=8
	 Kim believes in reductionism as she says that reducing behaviour to separate components leads to better understanding, eg understanding that schizophrenia is associated with abnormal levels of the neurotransmitter dopamine has led to the development of effective treatments for schizophrenia. 	

Possible discussion:

- The reductionist approach attempts to understand/explain human and animal behaviour in a scientific way.
- Component parts can be tested empirically (eg memory experiments).
- Reductionism can lead to an over-simplification of human behaviour etc.
- It is difficult to combine findings from component parts into a unified theory For example, although we know a lot about memory it is not known how this links to other cognitive components such as perception, attention etc.
- Holism seeks to integrate the different components in order to understand the person as a whole.
- The holistic approach has led to useful applications eg client-centred therapy etc.
- However, the holistic approach does not lend itself to scientific testing.
- The holistic approach neglects biology whereas the reductionist approach emphasises the importance of biology to human behaviour.

Credit other relevant material.

Level	Descriptor	Marks
4	Knowledge of the holism and reductionism debate is mostly accurate and generally well detailed. Discussion/application is mostly effective. Minor detail and/or expansion of argument is sometimes lacking. The answer is clear and focused. Specialist terminology is mostly used effectively.	16–20
3	Knowledge of the holism and reductionism debate is evident but there are occasional inaccuracies/omissions. There is some effective discussion/application. The answer is mostly clear and organised but occasionally lacks focus. Specialist terminology is mostly used appropriately.	11–15
2	Knowledge of the holism and reductionism debate is present. Any discussion/application is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is occasionally used appropriately.	6–10
1	Knowledge of the holism and reductionism debate is very limited. Discussion/application is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology is either absent or inappropriately used.	1–5
0	No creditable content.	1

Section C: Applied Psychology: Work and the Individual Total for this section: 30 marks

Question	Marking guidance	Total marks
12	Which one of the following is a key type of goal in goal-setting theory?	1
	A Expected goal B Medium goal C Performance goal D Specific goal Answer: C	AO1=1
13	Ana was returning to work after a serious illness. Her manager wanted to welcome her back.	2
	Referring to effects of email communication, explain why a face-to-face welcome would be better in this case.	AO2=2
	 Possible content: NVC (eg eye-contact, posture, smile) complements verbal behaviour with up to 50% of any message being non-verbal (which would be lost via email). Emails are text-based, and it is difficult to establish rapport and give the right tone just using text. Face-to-face would mean the manager might be less egocentric and show more empathy for Ana. If they are face-to-face the manager can read feedback from Ana and adjust communication accordingly. Accept other relevant points. 2 marks for a clear explanation with some elaboration. 1 mark for a limited, vague or muddled explanation. 0 marks no relevant content. 	
14	Evaluate research studies and/or theory of workplace stress.	9
	 Possible evaluation: Because there are many sources of stress in the workplace it is difficult for any single study to investigate all sources. Most studies have concentrated on workload and control – leaving out other sources, and the possible interaction of variables. The longitudinal study by Marmot (1997) found support for the importance of lack of control on stress-related illness. Marmot's study was large scale (7000 participants over 5 years) but there were some methodological issues. For example, it was self-report; possible sample bias; ignored other factors that might have contributed to stress, etc. There is support for Marmot's findings that control is a key feature in workplace stress eg Johansonn (1978). Karasek (1990) also found that increasing job control reduced stress-related illness. 	AO3=9

- Evaluation of theory/models: Research supports the usefulness of the JD-R model: (Neilsen et al 2011) (Baka 2015).
- JD-R model more complex, realistic and flexible than the earlier version (J D-C).
- The J D-R model provides suggestions to reduce strain and burnout in the workplace.

Credit other relevant points.

Level	Descriptor	Marks
3	Evaluation of research and/or theory into work place stress is accurate. The answer is clear and organised, with appropriate use of terminology.	7–9
2	Evaluation of research and/or theory into work place stress is evident but there are occasional inaccuracies/omissions. The answer lacks clarity and organisation in places. There is some appropriate use of specialist terminology.	4–6
1	Evaluation of research and/or theory into work place stress is either limited or very limited. The answer lacks clarity and is poorly organised. Specialist terminology is either absent or inappropriately used.	1–3
0	No creditable content.	

15 Using your knowledge of deindividuation **and** social identity theory, explain why Ken has negative feelings towards the workers in the pizza restaurant.

Possible application:

- As part of the burger restaurant group situation Ken has lost his sense of individuality - he has become deindividuated.
- As a group member, Ken's own identity has become submerged into the group identity.
- Ken has lost his sense of personal responsibility and self-awareness (eg by wearing the red uniform) and has become anonymous in the group which makes him behave differently eg feels he dislikes workers at the pizza restaurant.
- When Ken is with the burger restaurant workers, he takes on a social identity formed through the group membership/red uniform.
- Ken's sense of self switches from the personal to the social level.
- Behaviour is guided by the group behaviour the group (including Ken now) act negatively towards their rival restaurant and dislike the workers there.
- Accept reference to in-group/out-group as part of social identity theory.

Credit other relevant points.

6

AO2=6

Level	Descriptor M			
3	The application of deindividuation and social identity theory is clear and effective. The answer is clear with appropriate use of terminology.			
2	Some application of deindividuation and social identity theory is present. The answer lacks clarity/use of terminology in places. Or, one theory is at L3.	3–4		
1	The application of deindividuation and/or social identity theory is limited or very limited. The answer is vague/muddled. Or, one theory is at L2.	1–2		
0	No creditable content.	_ I		

Discuss what psychologists have discovered about cultural differences in personal space.

12

AO1=6 AO3=6

Possible content:

16

- Personal space determines the type and level of social interaction.
- Hall (1963) Proxemics described the interpersonal distance during social interactions.
- Hall presented 4 zones: Intimate space; personal space; social space; public space.
- Hall proposed a distinction between cultures on how their proxemics reflected social norms.
- For example, cultural differences in acceptable physical distance include: Latin America and Middle East accept distance much closer than Europe and America. The Japanese sit further apart than the Venezualans.

Possible discussion:

- Evidence that the amygdala is responsible for emotional reactions to personal space invasion in both humans and animals (eg Kennedy 2009).
- Hall focused on horizontal space, but vertical space can also be a factor (eg
 doctor standing over patient). There is evidence that vertical space is not as
 affected cross-culturally.
- Large meta-analysis (Hall, et al 2005) supports the cross-cultural findings.
- Research studies include: Matsumoto and Juang (2008); Wang et al (2008); Sussman and Rosenfeld (1982).

Credit other relevant points.

Level	Descriptor	Marks
4	Knowledge of cultural differences in personal space is accurate and generally well detailed. Discussion is effective. The answer is clear, organised and focused. Specialist terminology is mostly used effectively.	10–12
3	Knowledge of cultural differences in personal space is evident but there are occasional inaccuracies/omissions. There is some appropriate discussion. The answer is mostly clear and organised. Specialist terminology is mostly used appropriately.	7–9
2	Limited knowledge of cultural differences in personal space is present. There is some limited discussion. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is occasionally used appropriately.	4–6
1	Knowledge of cultural differences in personal space is very limited. Discussion is limited, poorly focused or absent. The answer lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology is either absent or inappropriately used.	1–3
0	No creditable content.	1

PS04 grid

	AO1	AO2	AO3	Total			
Section A							
1		4		4			
2	2			2			
3			2	2			
4	1			1			
5	4	2	3	9			
6		6		6			
7			6	6			
Section B							
8	2		2	4			
9			4	4			
10	2			2			
11	8	4	8	20			
Section C							
12	1			1			
13		2		2			
14			9	9			
15		6		6			
16	6		6	12			
Unit total	26	24	40	90			