OXFORD

INTERNATIONAL
AQA EXAMINATIONS

INTERNATIONAL A-LEVEL

PSYCHOLOGY

PS04

Unit 4 Approaches and application

Mark scheme

June 2023

Version: 1.0 Final

236XPS04/MS

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.

Further copies of this mark scheme are available from oxfordaqaexams.org.uk

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.

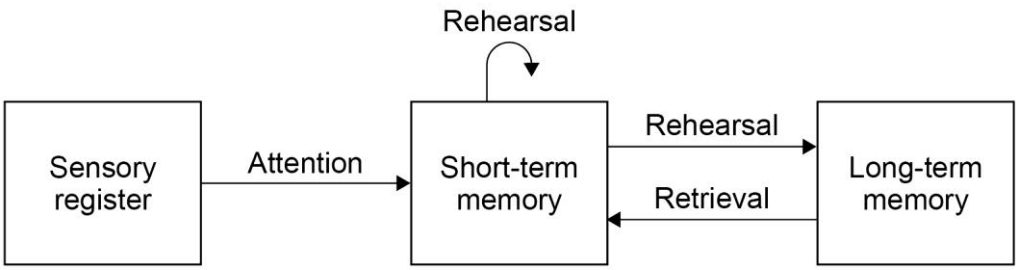
An answer which contains nothing of relevance to the question must be awarded no marks.

Section A: Approaches in Psychology **Total for this section: 30 marks**

Question	Marking guidance	Total marks
01.1	**Which one of A, B, C or D best describes the following behaviour?** **Learning that involves observing the consequences of other people's actions.** **A Identification** **B Imitation** **C Modelling** **D Vicarious reinforcement** **Answer:** D Vicarious reinforcement	**1** **AO1 = 1**

Question	Marking guidance	Total marks
01.2	**What are mediational processes in social learning?** **Possible content** • Processes which occur between imitation and social learning. • Cognitive processes that are necessary for social learning to take place. • Cognitive processes that make it more/less likely that behaviour will be repeated.	**1** **AO1 = 1**

Question	Marking guidance	Total marks
02	**Distinguish between two types of reinforcement.** **Award marks as follows:** **2 marks** for a clear comparative outline of two types of reinforcement. **1 mark** for a limited or muddled comparison. **Possible content** Positive reinforcement involves the provision of a reward to shape/obtain a behaviour, whereas negative reinforcement works by the removal of an unpleasant stimulus to shape/obtain a behaviour. Credit other types of reinforcement such as vicarious reinforcement, schedules of reinforcement, direct/indirect.	**2** **AO3 = 2**

<table>
<tr><th>Question</th><th>Marking guidance</th><th>Total marks</th></tr>
<tr><td>03</td><td>
Figure 1 The multi-store model of memory


Using your knowledge of the cognitive approach, explain how theoretical models, like that shown in Figure 1, can be a useful way of helping psychologists understand internal mental processes.

Possible content
• Theoretical models can be useful to test internal processes which cannot be directly seen, eg the multi-store model is used to generate theories to explain how memory works.
• Theoretical models use computer terminology such as input, storage and output, eg the multi-store model is used to explain how information might be coded, stored and retrieved from memory.
• Theoretical models are able to help psychologists understand the stages involved in processing information, eg the multistore model shows how information must pass through the sensory register, short-term memory and long-term memory.

Credit other relevant content.

<table>
<tr><th>Level</th><th>Description</th><th>Marks</th></tr>
<tr><td>2</td><td>Application of knowledge of the cognitive approach is accurate with some detail. The answer is clear with appropriate use of specialist terminology.</td><td>3–4</td></tr>
<tr><td>1</td><td>Application of knowledge of the cognitive approach is limited, vague or muddled. Specialist terminology is either absent or inappropriately used.</td><td>1–2</td></tr>
<tr><td>0</td><td>No creditable content.</td><td>0</td></tr>
</table>
</td><td>4

AO2 = 4</td></tr>
</table>

<table>
<tr><th>Question</th><th>Marking guidance</th><th>Total marks</th></tr>
<tr><td>04.1</td><td>
Glen is a 76-year-old man who has suddenly lost the ability to produce speech.

Explain how psychologists could use the biological approach to investigate possible causes for Glen’s difficulties.

Possible content
• Influence of genes, they could study Glen’s close relatives to see if any of them have experienced the same thing.
• Biological structures, they could use brain scans to look for possible lesions in Broca’s area, responsible for speech production.
• Neurochemistry, they could use psychoactive drugs to block/enhance certain neurotransmitters to see if his speech production improves.

<table>
<tr><th>Level</th><th></th><th>Marks</th></tr>
<tr><td>2</td><td>The explanation of how psychologists could use the biological approach to investigate possible causes for Glen’s difficulties is accurate with some detail. The answer is clear with appropriate use of specialist terminology.</td><td>3–4</td></tr>
<tr><td>1</td><td>The explanation of how psychologists could use the biological approach to investigate possible causes for Glen’s difficulties is limited, vague or muddled. Specialist terminology is either absent or inappropriately used.</td><td>1–2</td></tr>
<tr><td>0</td><td>No creditable content.</td><td>0</td></tr>
</table>
</td><td>4

AO2 = 4</td></tr>
</table>

<table>
<tr><th>Question</th><th>Marking guidance</th><th>Total marks</th></tr>
<tr><td>04.2</td><td>
Evaluate the use of the biological approach to understand behaviour.

Possible content

It has made valuable contribution in many areas of psychology, eg understanding the role of brain structures in behaviour such as language.
It has enabled psychologists to develop drugs which target the neurotransmitters involved in disorders such as schizophrenia and depression.
It has enabled psychologists to understand genetic factors in behaviours such as aggression and schizophrenia.
It has enabled psychologists to explore the evolutionary advantages of behaviours such as sleep.
The approach is deterministic as it assumes that behaviour is caused by biological factors and therefore does not allow for free-will.
Problems with cause and effect arising from the use of biological factors to explain behaviour, eg dopamine is involved in schizophrenia but it may be the disease itself that changes dopamine levels.
The approach is reductionist as it tries to find the simplest biological cause to explain behaviour, eg faulty neurotransmitter levels to explain the complex symptoms of schizophrenia whilst ignoring the influence of family and society on the disorder.

<table>
<tr><th>Level</th><th>Description</th><th>Marks</th></tr>
<tr><td>3</td><td>Evaluation of the use of the biological approach to understand behaviour is detailed and appropriate. The answer is clear with appropriate use of specialist terminology.</td><td>5–6</td></tr>
<tr><td>2</td><td>Evaluation of the use of the biological approach to understand behaviour is relevant, but detail is lacking. The answer lacks clarity in places. There is some appropriate use of specialist terminology.</td><td>3–4</td></tr>
<tr><td>1</td><td>Evaluation of the use of the biological approach to understand behaviour is very limited. The answer is vague/muddled. Specialist terminology is either absent or inappropriately used.</td><td>1–2</td></tr>
<tr><td>0</td><td>No creditable content.</td><td>0</td></tr>
</table>
</td><td>6

AO3 = 6</td></tr>
</table>

<table>
<tr><th>Question</th><th>Marking guidance</th><th>Total marks</th></tr>
<tr><td>05</td><td>
Describe and evaluate Pavlov’s research into classical conditioning.

Possible content
• Pavlov conducted controlled laboratory experiments to explore the process by which dogs came to salivate at the presence of research assistants.
• Pavlov observed that the presence of food to a hungry dog led to salivation.
• This was a reflex response that required no learning.
• He described this link as an unconditioned stimulus (UCS) leading to an unconditioned responses (UCR).
• He then rang a bell (NS) at the same time food was presented (UCS).
• Association between a neutral stimulus and an unconditioned stimulus to produce a response.
• After repeated pairings, bell (CS) leads to salivation (CR).
• Gave rise to the theory of classical conditioning where learning is by association.
• Behaviours are directly observable and measurable.
• Learning assumed to be the same as performance.

Possible evaluation
• Pavlov carefully controlled variables, eg the number of trials during which the bell was sounded, means that the study could be replicated.
• Use of scientific method allows for cause and effect to be established.
• Contributed to the development of the behavioural approach by understanding similarities in the way animals and humans learn (comparative approach).
• Support for Pavlov in Watson and Rayner’s (1920) Little Albert study where a young child was conditioned to fear a white rat using classical conditioning techniques, increasing validity.
• Animals are not humans so should be cautious when generalising; humans have the ability to think and choose whether to act or not.
• Practical applications of Pavlov’s research include treatments for phobias, eg systematic desensitisation and flooding.
• Does not take into account thoughts or cognition so cannot explain more complex behaviours.

Credit other relevant material.

<table>
<tr><th>Level</th><th>Description</th><th>Marks</th></tr>
<tr><td>4</td><td>Knowledge of Pavlov’s research on classical conditioning is accurate and generally well detailed. Evaluation is effective. The answer is clear, organised and focused. Specialist terminology is mostly used effectively.</td><td>10–12</td></tr>
<tr><td>3</td><td>Knowledge of Pavlov’s research on classical conditioning is evident but there are occasional inaccuracies/omissions. There is some appropriate evaluation. The answer is mostly clear and organised. Specialist terminology is mostly used appropriately.</td><td>7–9</td></tr>
</table>
</td><td>12

AO1 = 6
AO3 = 6</td></tr>
</table>

	2	Limited knowledge of Pavlov's research on classical conditioning is present. There is some limited evaluation. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is occasionally used appropriately.	**4–6**
	1	Knowledge of Pavlov's research on classical conditioning is very limited. Evaluation 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.	**0**

Section B: Issues and Debates in Psychology **Total for this section: 30 marks**

<table>
<tr><th>Question</th><th>Marking guidance</th><th>Total marks</th></tr>
<tr><td>06</td><td>
Ben and Sarah are talking after class. Ben says, “I think that all human behaviour is determined by the environment around us.”

Sarah replies, “That’s not true, we do learn behaviour but we have the choice whether or not to perform it.”

Using your knowledge of free will and determinism, explain Ben’s and Sarah’s comments.

Possible application
• Ben believes in hard/environmental determinism, that all behaviour is caused by environmental forces outside our control.
• Sarah believes in soft determinism, that we do learn from the environment but we still have control about how we respond, there is some free will.

Note: Award one mark for naming the relevant types of determinism.

<table>
<tr><th>Level</th><th>Description</th><th>Marks</th></tr>
<tr><td>2</td><td>The application of Ben’s and Sarah’s position on the free will and determinism debate is accurate with some detail. The answer is clear with appropriate use of specialist terminology.</td><td>3–4</td></tr>
<tr><td>1</td><td>The application of Ben’s and/or Sarah’s position on the free will and determinism debate is limited, vague or muddled. Specialist terminology is either absent or inappropriately used.</td><td>1–2</td></tr>
<tr><td>0</td><td>No creditable content.</td><td>0</td></tr>
</table>
</td><td>4

AO2 = 4</td></tr>
</table>

Question	Marking guidance	Total marks
07.1	**Reductionism is the idea that any behaviour can be fully explained by looking at its most basic components.** **Briefly discuss one strength of using a reductionist approach in psychology.** **Award marks as follows:** **3 marks:** The strength of using a reductionist approach is detailed. The answer is clear with appropriate use of specialist terminology. **2 marks:** The strength of using a reductionist approach lacks detail. The answer lacks clarity in places. **1 mark:** The strength of using a reductionist approach is briefly presented. The answer is very limited / vague/ muddled. **Possible strengths** • There is research to support the usefulness of taking a reductionist approach, eg Shinkareva et al (2011) and Kim et al (2013). • Reductionism can explain some types of behaviour by reducing it to its adaptive value, eg social releasers in children (evolutionary reductionism). • Reductionism can be used to provide treatments, eg psychoactive drugs for mental illness (biological reductionism). Accept other relevant strengths.	**3** **AO3 = 3**

Question	Marking guidance	Total marks
07.2	**Briefly discuss one limitation of using a reductionist approach in psychology.** **Award marks as follows:** **3 marks:** The limitation of using a reductionist approach is detailed. The answer is clear with appropriate use of specialist terminology. **2 marks:** The limitation of using a reductionist approach lacks detail. The answer lacks clarity in places. **1 mark:** The limitation of using a reductionist approach is briefly presented. The answer is very limited / vague/ muddled. **Possible limitations** • Oversimplifies complex behaviour, often describes rather than explains human behaviour, eg reducing the explanation for schizophrenia to neurotransmitters (dopamine) tells us nothing of the person's feelings or cognition. • Loses sight of the whole person, comparison with holism which emphasises the behaviour of the whole person being greater than the sum of their parts. • Takes no account of the social context in which behaviour occurs, eg family dysfunction explanations for schizophrenia. Accept other relevant limitations.	**3** **AO3 = 3**

Question	Marking guidance	Total marks
08	**Many psychologists define psychology as 'the scientific study of the mind and behaviour'.** **Discuss the ways in which psychology is a science. Refer to one or more topics you have studied in your answer.** **Possible content** • Psychology is defined as the scientific study of human behaviour and attempts to use the key features of science when it investigates all behaviours. • The key features of science include use of the empirical method where only behaviour that can be directly observed is studied. • Use of objective methods where events are recorded as they actually happen. • Replicability, all variables apart from the IV are controlled, giving the ability to repeat the experiment and get similar results. • Use of IV and DV, control of extraneous variables to establish cause and effect/improve (internal) validity. • Use of hypotheses: precise, testable statements that make specific predictions. • Testing of hypotheses leads to either the hypothesis being retained and theory supported or hypothesis is rejected and the theory is amended. • General laws can be developed which can be used to predict future behaviour. **Possible application** • Sperry's (1959-68) split brain research. Used a highly controlled procedure which allowed for replication by other psychologists. • Asch (1951) investigated conformity using a standardised protocol that increased the replicability of his research and enabled explanations for types of conformity to be accepted widely. • Piaget's (1967) observational research resulted in a theoretical explanation that has prompted refined observation strategies such as the work of Baillargeon (1985). The results of her research show how it is possible to use a scientific approach including observation, timing and standardisation principles to investigate unseen mental processes. • Loftus (1974) manipulated the verb describing a simulated car crash. The impact of her research on the fragility of memory has been to radically alter the way in which eye-witness testimony is used in court. **Possible discussion** • Psychological theories which are supported by studies using the scientific method have credibility and are more likely to be accepted by society and other researchers. • There is evidence that using scientific methods in psychology has had practical applications. Psychologists investigating a diverse range of human behaviours have established a series of explanations that have stood the test of time such as, human recall of incidents being affected by questioning or the need to scaffold a child's learning to aid cognitive development.	**20** **AO1 = 8** **AO2 = 4** **AO3 = 8**

- Without the application of the features of science to psychology there would be no acceptance of the theories. Being falsifiable is crucial to theoretical explanations.
- There are issues with the drive for scientific approval. Other methods such as questionnaires and interviews may be a more ethical or useful approach to study cultural differences in human behaviour.
- There are times when case studies are useful as, even though they are not considered scientific, the rich detail they can provide often collected over an individual's lifetime can give a unique insight into their particular difficulties.
- Research using for correlational techniques can be less convincing because cause and effect cannot be established.
- There are still difficulties involved in the process of inference as the jump from data explanations of behaviour might be flawed, eg the assumption that chemical imbalances cause rather than might be the effect of disordered behaviours such as depression.
- It might be sensible to conclude that as far as possible and when appropriate, psychology is a science.

Credit other relevant material.

Level	Description	Marks
4	Knowledge of the ways in which psychology is a science is accurate and generally well detailed. Discussion is effective. There is effective application to one or more topics. The answer is clear, organised and focused. Specialist terminology is mostly used effectively.	**16–20**
3	Knowledge of the ways in which psychology is a science is evident but there are occasional inaccuracies/omissions. There is some appropriate application and/or discussion. The answer is mostly clear and organised. Specialist terminology is mostly used appropriately.	**11–15**
2	Limited knowledge of the ways in which psychology is a science is present. There is some limited application and/or discussion. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is occasionally used appropriately.	**6–10**
1	Knowledge of the ways in which psychology is a science is very limited. Application and/or 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.	**1–5**
0	No creditable content.	**0**

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

Question	Marking guidance	Total marks
09	**What is meant by social loafing?** **Award marks as follows:** **2 marks** for a definition with some elaboration. **1 mark** for a basic/muddled definition. **Possible content** The tendency for individuals to expend less effort when working collectively than when working individually.	**2** **AO1 = 2**

Question	Marking guidance	Total marks
10	**A researcher asked participants from different countries to match six different emotions to six photographs of faces. He found that it did not matter which country people came from; all the participants were able to match the emotions to the photographs of faces correctly.** **Using your knowledge of cultural universals in facial expression, explain the results found by the researcher.** **Possible content** • All participants recognised the emotions from the photographs of faces correctly, suggesting it is likely that we are biologically programmed to recognise basic emotions in faces (as it allowed our ancestors to survive). • The study suggests that basic emotions such as happiness, surprise, anger and fear are a cultural universal and the photographs of faces must have been depicting (the 6) basic emotions because all participants could identify them. Credit other relevant content.	**4** **AO2 = 4**

Level	Description	Marks
2	Application of knowledge of cultural universals is accurate with some detail. The answer is clear with appropriate use of specialist terminology.	**3–4**
1	Application of knowledge of cultural universals is limited, vague or muddled. Specialist terminology is either absent or inappropriately used.	**1–2**
0	No creditable content.	**0**

Question	Marking guidance	Total marks
11	**Chen is feeling unhappy at work. He has very little autonomy in organising his working day and the tasks he is given to do are meaningless and boring. He has a meeting to discuss changes to his job that might improve his satisfaction.** **Using your knowledge of well-being, suggest two changes that could improve Chen's satisfaction at work.** **For each change suggested, award marks as follows:** **2 marks** for a clear suggestion for a change **1 mark** for a limited/vague/muddled suggestion **Possible content** • Chen could ask for greater skill variety to avoid boredom (Hackman and Oldman's job characteristics model). • Chen could ask for/set himself a clearly identifiable task/goal which would increase importance and significance to the company. This will make his work more meaningful and improve his motivation and well-being. • Chen could ask for more autonomy/responsibility to complete tasks and feedback so he has knowledge of the results. This will improve his motivation and well-being. Credit other relevant content.	**4** **AO2 = 4**

Question	Marking guidance	Total marks
12	**Describe and evaluate research into the effects of workload and control on workplace stress.** **Possible content** • Rotter (1966) locus of control (LoC), people with an internal LoC feel they are in control of events around them and that their behaviour will lead to predictable consequences. • People with an external LoC feel that they are at the mercy of events around them and they can do little to control them. Therefore, externals will experience more workplace stress as they feel they are not in control of their workload. • A strong internal LoC is associated with psychological health and greater resistance to stress than externals. • Karasek's job demands-control model (JD-C) suggests the effects of workload can depend on the interaction of job demands with decision latitude ie low decision latitude (control over decision making) and high demands equals a high strain job. • Marmot et al (1997) Whitehall I and II studies; lower-grade workers had twice the rate of heart disease of higher-grade workers. Degree of decision latitude or lack of control linked to stress-related heart disease. **Possible evaluation** • Rotter's locus of control model fails to take account of the complex interaction between locus of control and demands of the job, eg a shop-floor worker will have little control but the demands of the job are low and so he/she does not feel stressed. • Marmot's study raised awareness of the importance of decision latitude for the health of workers and as such has made a positive contribution to the understanding of work-related stress and illness. • Marmot's study has support from Johannson et al (1978) found higher levels of stress hormones and stress-related illness in a group of highly skilled sawmill employees whose machine-paced work gave them little or no control over their work. • Many studies are based on self-report methods, so there is a potential for social desirability bias, making results less valid. • Samples are often limited (eg government civil servants), so it is difficult to generalise the findings to other groups of workers. • Karasek's model has important practical applications. The interaction between job demands and decision latitude predicts that the stressful effects of lack of control can be reduced if the job itself is of low demand. Credit other relevant material. **Note**: credit methodological issues in studies only when linked back to the effects of workload and control.	**20** **AO1 = 8** **AO3 = 12**

Level	Description	Marks
4	Knowledge of research into the effects of workload and control on workplace stress is mostly accurate and generally well detailed. Evaluation 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 research into the effects of workload and control on workplace stress is evident but there are occasional inaccuracies/omissions. There is some effective evaluation. The answer is mostly clear and organised but occasionally lacks focus. Specialist terminology is mostly used appropriately.	**11–15**
2	Limited knowledge of research into the effects of workload and control on workplace stress is present. Any evaluation is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is occasionally used appropriately.	**6–10**
1	Knowledge of research into the effects of workload and control on workplace stress is very limited. Evaluation 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.	**0**