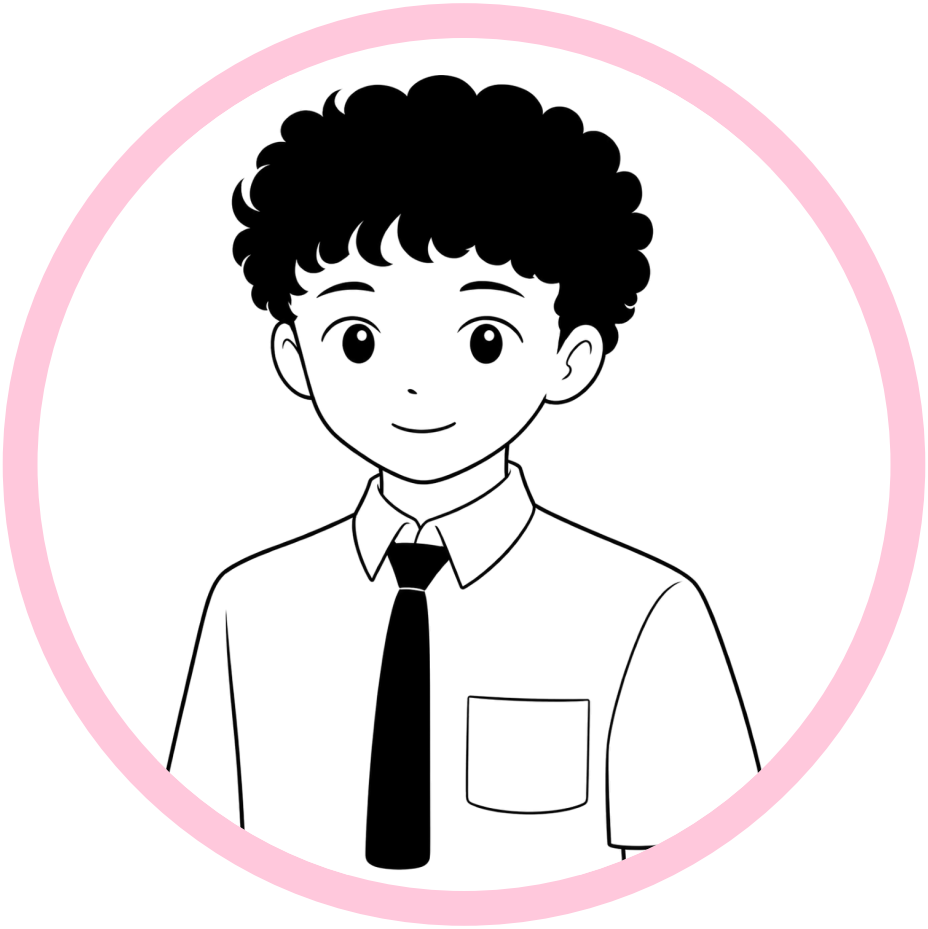
AQA A-LEVEL PSYCHOLOGY · 7182

PSYCHOLOGY



MARK SCHEME

3.3.6 OBESITY

SCORE	PERCENTAGE
/70	%

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Q1.

(a) **[AO1 = 2]**

2 marks for a clear, coherent outline of one psychological explanation with some explicit link to obesity.

1 mark for a limited or muddled outline.

Possible content:

- restraint theory – involves using self-imposing targets that are often unrealistic; a high control strategy that tends to be practised by people with low self-control; eating driven by the regimen rather than by hunger; preoccupation with food; paradoxical outcome
- disinhibition – external cues trigger uncontrolled eating; linked to high body mass index, anxiety, low emotional control; seeking comfort through eating
- boundary model – physiological model of balance between hunger and satiety; hunger motivates eating; fullness motivates us to stop eating; restrained eaters have higher satiety boundary so eat more.

Note that these explanations may overlap.
Credit other relevant explanations.

2

(b) **[AO3 = 2]**

2 marks for a clear, coherent strength of the explanation in part (a).

1 mark for a limited or muddled strength.

Possible strengths:

- use of evidence to support the explanation, e.g. studies show restrained eating does not lead to long-term weight loss; restrained eaters fail to maintain weight loss over time
- boundary model more holistic, considers both physiological and cognitive processes
- consistent with everyday experiences of dieting so has intuitive appeal.

Credit other relevant strengths.

2

[4]

Q2.

[AO1 = 1]

1 mark

A

Q3.

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[AO3 = 1]

1 mark

C

Q4.

[AO2 = 4]

Level	Marks	Description
2	3 – 4	Knowledge of psychological explanations for the success and failure of dieting is clear and mostly accurate. The material is applied appropriately. The answer is generally coherent with effective use of terminology.
1	1 – 2	Some knowledge of psychological explanations for the success and failure of dieting is evident. Application is not always effective. The answer lacks accuracy and detail. Use of terminology is either absent or inappropriate.
	0	No relevant content.

Possible content@

- Restrained eaters clearly consume more cakes than unrestrained eaters.
- Restraint and boundary approaches would argue that restrained eaters have an extended biological satiety boundary as they are dieting. Before this boundary they have a cognitive boundary. They try to stay below this cognitive boundary when dieting. The preload takes them beyond this boundary and the 'what the hell effect' kicks in, and they eat to their biological satiety boundary.
- Unrestrained eaters are quite full after the preload and simply have to eat less to reach their biological satiety boundary. So restrained eaters paradoxically eat more after a preload than unrestrained eaters

It would be difficult to apply other models/approaches to this study but credit feasible attempts

Q5.

[AO2 = 4]

Level	Marks	Description
2	3 – 4	Knowledge of one or more strategies for losing weight and maintaining weight loss is clear and mostly accurate. The material is applied appropriately. The answer is generally coherent with effective use of terminology.
1	1 – 2	Some knowledge of one or more strategies for losing weight and maintaining weight loss is evident. Application is not always effective. The answer lacks accuracy and detail. Use of terminology is either absent or inappropriate.
	0	No relevant content.

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Possible content:

- Cognitive therapy might help especially if it also emphasises the positive rewards of dieting
- Group-based social and practical support eg joining an organised group such as Weight Watchers
- Interventions combining group therapy, health advice and exercise have been shown to produce moderate but sustained weight loss
- Moderating aims (not try to lose a kilogram every week) increases the chances of sustained success
- Taking an interest in preparing food and organising a varied healthy diet help restrained eaters see dieting as very positive

Credit other relevant material.

No credit for knowledge of the boundary model and restraint theory.

Q6.

[AO1 = 6 AO3 = 10]

Level	Marks	Description
4	13 – 16	Knowledge of one or more biological explanations for obesity is accurate and generally well detailed. Evaluation is thorough with effective use of material. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and/or expansion of argument sometimes lacking.
3	9 – 12	Knowledge of one or more biological explanations for obesity is evident. There are occasional inaccuracies. Evaluation is apparent and use of material is mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places.
2	5 – 8	Some knowledge of one or more biological explanations for obesity is present. Focus is mainly on description. Any evaluation or use of material is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.
1	1 – 4	Knowledge of one or more biological explanations for obesity is limited. Evaluation/use of material is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately

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		used.
	0	No relevant content.

Possible content:

- Specific genes may play a role in some cases of obesity
- Evolutionary approaches eg the ‘thrifty’ gene, suggest that we are pre-programmed to store food in times of plenty, and to use it in times of scarcity. Now that in developed countries food is relatively plentiful, the thrifty gene is no longer adaptive and leads to obesity.
- The evolutionary approach also suggests that we are pre-programmed to like the taste of sweet foods. The availability of foods with high sugar content therefore fuels obesity.
- Abnormalities in the neural and hormonal control of feeding behaviour could lead to overeating and obesity. These might include physical damage to hypothalamic centres, or changes in levels of key hormones such as leptin and ghrelin.

Possible evaluation points

- No key genes yet identified that explain more than a tiny number of cases of obesity.
- Wide variations in incidence of obesity within and across cultures, suggesting the evolutionary ‘drives’ are not the main factor.
- Evidence that obesity increases when groups first enter western developed societies with plentiful food supports an evolutionary perspective (eg the Pima Indians).
- Limited evidence of abnormal levels of hormones such as leptin and ghrelin.
- Biological explanations are countered by evidence for the role of early learning, social and cultural factors in food preferences; these factors may lead to food fulfilling other functions, such as mood regulation and behavioural control, that in turn could lead to obesity.
- Implication of accepting biological explanations, including economic implications.

Credit other relevant material. Note that students may cover one explanation in more detail, or more than one explanation in less detail.

Q7.

Marks for this question: AO1 = 6, AO3 = 10

Level	Marks	Description
4	13 – 16	Knowledge is accurate and generally well detailed. Discussion / evaluation / application is thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of argument sometimes lacking.

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3	9 – 12	Knowledge is evident. There are occasional inaccuracies. Discussion / evaluation / application is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places.
2	5 – 8	Some knowledge is present. Focus is mainly on description. Any discussion / evaluation / application is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions. One explanation only at Level 4
1	1 – 4	Knowledge is limited. Discussion / evaluation / application is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used. One explanation only at Level 3
	0	No relevant content.

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

AO1

Eating disorders in the Specification are anorexia nervosa and obesity. For each disorder there is a range of potential explanations: e.g. for anorexia nervosa: cognitive, social learning and family systems, the genetic and neural - role of serotonin and the hypothalamus; for obesity: restraint theory, disinhibition and the boundary model, genetic and neural.

Credit also socio-cultural factors such as changes to the built environment, accessibility of high carbohydrate foods and lifestyle changes (these would be creditable together under the umbrella term of a psychological or socio-cultural explanation); body weight control systems; genome lag.
Note that evolutionary models of either disorder would be considered part of the biological approach. Note also, it is acceptable for two or more explanations to be accepted under an umbrella term such as ‘the behavioural approach’ or the ‘biological approach’.
If more than one psychological or biological explanation is covered, all should be marked and the best one credited.

AO3

Content will depend upon which disorder is chosen and which explanations are discussed. In some areas (e.g. social learning theory and anorexia nervosa; metabolic rate in obesity) there is research evidence that would provide very effective evaluation; this includes cross-cultural and twin studies. In other areas, besides research evidence, commentary could cover some extremely critical points; why only some young girls seem susceptible to media images, conditions such as obesity probably involving more than one single explanation; the interplay between

psychological and biological factors in all disorders.

Effective methodological evaluation could include the problems of demonstrating that e.g. increasing car use and sedentary pastimes have a cause-effect relationship with obesity; or that low self-esteem and body image disturbance have cause-effect relationships with bulimia nervosa; or that physiological and neural changes in anorexia nervosa are causes and not consequences of weight loss. Note that methodological evaluation of studies that is not related explicitly to explanations cannot earn credit.

Alternative explanations may earn marks if used as sustained and effective evaluation of the target explanations.

Other relevant evaluative comment could include gender and cultural differences, reductionism, nature / nurture, applications of findings and socially-sensitive research.

Q8.

Please note that the AOs for the new AQA Specification (Sept 2015 onwards) have changed. Under the new Specification the following system of AOs applies:

- AO1 knowledge and understanding
- AO2 application (of psychological knowledge)
- AO3 evaluation, analysis, interpretation.

Although the essential content for this mark scheme remains the same, mark schemes for the new AQA Specification (Sept 2015 onwards) take a different format as follows:

- A single set of numbered levels (formerly bands) to cover all skills
- Content appears as a bulleted list
- No IDA expectation in A Level essays, however, credit for references to issues, debates and approaches where relevant.

AO1 = 4

Depending upon the disorder identified, there is a variety of explanations that can be used for this question. Anorexia nervosa can involve biological factors (genetics), family dynamics and psychodynamic approaches, body dissatisfaction, media influences and evolutionary hypotheses. Bulimia nervosa similarly may involve biological factors, family dynamics / psychodynamic approaches, body dissatisfaction, and media influence. Relevant explanations for obesity include mood regulation, availability of high carbohydrate and fatty foods, reduced exercise / increased car travel, sedentary pastimes and biological factors.
Candidates need to focus on one explanation only, and for marks in the top band provide accurate and coherent detail of the explanation. If more than one explanation is presented, both should be marked and the better one credited. There can be an overlap between disorders and explanations, particularly for anorexia nervosa and bulimia nervosa. Examiners should be lenient where such overlaps occur.

If candidates explicitly present several explanations / factors in relation to explanations for eating disorders under a single umbrella term eg biological psychodynamic, socio-cultural explanations, then they may be credited as a single explanation. Note, however that a simple list of relevant factors without reference to explanations will not move out of Rudimentary.

Evaluation and commentary on the explanation are not required in this question part.

Studies used to illustrate explanations can be credited in so far as they add to the explanation eg twin studies of anorexia and bulimia nervosa and genetic explanations, and can receive AO1 credit if used in this way.

No credit for identifying a disorder, but if no disorder is clearly identified a maximum mark of 3 can be awarded, however detailed the explanation.

AO1 Mark bands
4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic / relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and / or inaccurate. Lacks organisation and structure.
0 marks No creditworthy material.

Q9.

Please note that the AOs for the new AQA Specification (Sept 2015 onwards) have changed. Under the new Specification the following system of AOs applies:

- AO1 knowledge and understanding
- AO2 application (of psychological knowledge)
- AO3 evaluation, analysis, interpretation.

Although the essential content for this mark scheme remains the same, mark schemes for the new AQA Specification (Sept 2015 onwards) take a different format as follows:

- A single set of numbered levels (formerly bands) to cover all skills
- Content appears as a bulleted list
- No IDA expectation in A Level essays, however, credit for references to issues, debates and approaches where relevant.

AO1 = 4

Examples of eating disorders given in the Specification are anorexia nervosa, bulimia nervosa and obesity. Each of these has a range of psychological explanations, such as social / cultural influences (eg social learning theory and other conditioning explanations) and psychodynamic approaches (eg Bruch, Minuchin).

Explanations of obesity are likely to focus on a range of cultural and environmental factors. These should be considered as one psychological explanation.

Answers should be assessed on their accuracy and coherence, and focus on a *single* disorder. Where a single disorder cannot be identified, such generic answers eg on the role of social learning on eating disorders in general, can earn a maximum of 3 marks. Studies can be credited to the extent to which they illustrate the explanation.

AO1 Mark Bands
4 marks Outline is reasonably thorough, accurate and coherent.
3 – 2 marks Outline is limited, generally accurate and reasonably coherent.
1 mark Outline is weak and muddled, or very limited.
0 marks No creditworthy material.

Q10.

Marks for this question: AO1 = 6, AO3 = 10

Level	Marks	Description
4	13 – 16	Knowledge is accurate and generally well detailed. At least two explanations evident. Discussion / evaluation / application is thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of argument sometimes lacking.
3	9 – 12	Knowledge is evident. There are occasional inaccuracies. At least two explanations present. Discussion / evaluation / application is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places.
2	5 – 8	Some knowledge is present. Focus is mainly on description. Any discussion / evaluation / application is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions. One explanation only at Level 4
1	1 – 4	Knowledge is limited. Discussion / evaluation / application is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used. One explanation only at Level 3

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	0	No relevant content.

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

AO1

Explanations might include: Polivy's work on restraint theory, developed later into the boundary model. This approach incorporates some aspects of Nisbett's biological / genetic body weight set-point theory. Health psychology models such as the theory of planned behaviour or planned relapse could also be used.

Although candidates are likely to take a general approach to explanations for the success and / or failure of dieting, that describes both success and failure, some may explicitly focus on either the success or the failure of dieting, using the counter position as evaluation.
Examiners should assess the material in the way most favourable to the candidate.

AO3

Research evidence supporting, for instance, the boundary model would be an effective discussion route, as would an evaluation of the internal / external validity of laboratory-based studies. General commentary could include the complex nature of dieting behaviour, for instance the interplay of cognitive, biological (genetic), and affective factors. Cultural attitudes to eating behaviour would also be important.

Issues relevant to explanations for the success or failure of dieting include: cultural and gender biases in research; cultural and gender differences; free will and determinism; nature-nurture; reductionism etc.

Q1.

Part (a) was usually well answered, with most students choosing restraint or disinhibition. Even weak answers usually managed to gain one mark.

Part (b) was generally well answered, either through use of evidence, or through relating the theory to everyday experiences of dieters.

Q2.

This question was answered correctly by the vast majority of students.

Q3.

Surprisingly, this question was not answered well by a significant proportion of students. It seems that students have limited understanding of the boundary model and teachers are encouraged to address this.

Q7.

This was another popular question. For marks in the higher bands there needed to be a reasonable balance between the two explanations, but this was not an issue for most students. Anorexia nervosa (AN) was the most popular choice of disorder. Psychological explanations included psychoanalytic and behavioural approaches, and there was a welcome increase in the depth and detail of the psychoanalytical approach. However, in contrast, answers outlining social learning theory and the influence of parents, peers and media tended to lack detail of the SLT processes involved. Biological explanations included the possible role of the hypothalamus, neurotransmitters, evolutionary theory and genetic factors.

Evaluation of explanations focused on research studies, and, especially for psychoanalytic explanations, the effectiveness of therapies and familial characteristics. There was often confusion over the interpretation of twin studies and the relevance of work with non-human animals, eg hypothalamic mechanisms and feeding behaviour, was sometimes not explicit.

General commentary included the complexity of AN and the need for a variety of approaches. Other IDA included gender and cultural differences and reductionism, with marks awarded according to the level of understanding and relevance demonstrated.

There were few answers on bulimia nervosa, but some impressive accounts of obesity. Psychological explanations included socio-cultural factors (eg accessibility of high carbohydrate foods, lifestyle changes) and mood regulation. Biological explanations included hypothalamic mechanisms and evolutionary approaches (the ‘thrifty’ gene).

Where more than one explanation was explicitly presented under an umbrella term, eg behavioural approaches including operant and classical conditioning, social learning; neurotransmitters such as serotonin and dopamine, all were credited.

Q8.

This short answer question was well answered. The most popular disorders identified were anorexia nervosa and obesity. For anorexia nervosa explanations varied from the

psychoanalytical through media influences to the biological / genetic. The genetic explanation was often limited, with descriptions of only twin studies given and no reference to possible mechanisms, or to what is actually inherited. In general the role of neurotransmitters was covered more successfully. For obesity the focus was either on socio-cultural factors or physiological mechanisms of feeding behaviour.

Weaker answers often described symptoms or provided evaluative material that was not relevant in this question. A further common weakness was for answers using media influence to focus on largely anecdotal material with no reference to, for example social learning theory. For anorexia nervosa, the key stage of why media influence leads to pathological slimming was usually ignored.

Q9.

Anorexia nervosa was the most popular disorder considered and the media / social learning approach was the most popular explanation. The question was answered moderately well though many answers lacked sufficient detail of the psychological processes involved to move into the top bands. Technical terms such as observational learning, modelling, vicarious reinforcement etc should all form part of an outline of the role of SLT in any behaviour. Psychodynamic explanations were usually more impressive, with the roles of enmeshment and over control accurately outlined. Obesity and bulimia nervosa were less popular, but the socio-cultural explanation of obesity was used effectively by some candidates. A significant minority of answers were either too long or too short for the marks available, and in some cases presented AO2 / AO3 material that did not earn marks.

Q10.

Answers to this popular question reflected similar issues to the last question. Candidates who chose to frame their answers around a limited number of explanations eg body weight set-point, restraint and ironic processes, denial, or the boundary model, were often able to quote the findings of directly relevant research studies as part of their evaluation and provide a coherent and well-organised essay. Weaker answers demonstrated little understanding of the models outlined, and tended to introduce irrelevant and often anecdotal material on dieting behaviour and medical treatments for obesity. Often the focus was on studies and not explanations. A proportion of candidates presented detailed outlines of the hypothalamic centres involved in feeding behaviour and the roles of hormones and neurotransmitters such as leptin and ghrelin. These earned marks to the extent that they were explicitly linked to the question of the success or failure of dieting.

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