

AQA A Level Psychology Topic Assessments

Stress (Edition 1)

The Psychology of Stress

- ➔ Stress and Illness
- ➔ Life Changes and Daily Hassles
- ➔ Workplace Stress
- ➔ Measuring Stress
- ➔ Individual Differences
- ➔ Drug Therapy, Stress Inoculation and Biofeedback
- ➔ Managing and Coping with Stress

AQA A Level Psychology

The Physiology of Stress

1	2	3	4	5	6	Total
/1	/1	/3	/4	/3	/3	/15

Name: _____

Class: _____

- 1 Which one of these statements regarding the hypothalamic-pituitary-adrenal system is false?
- A It is the body's response to long-term chronic stress. ☐
- B It is responsible for the release of cortisol from the adrenal cortex. ☐
- C It is the response of the autonomic nervous system. ☐
- D It takes longer to activate than the sympathomedullary pathway. ☐
- (1 mark)

- 2 Which one of the following statements about the role of cortisol is false?
- A It affects the metabolism of glucose in order to lower the stress response. ☐
- B It suppresses the immune system. ☐
- C It increases sensitivity to pain. ☐
- D It impairs cognitive performance. ☐
- (1 mark)

- 3 Outline the sympathomedullary pathway. (3 marks)

Elaine lost her job 6 months ago, which was a very stressful experience. When she first found out she was really angry, her heart was beating very fast and she was sweating and shaking. After a while though she started to calm down and started to look for other jobs. However, recently Elaine has begun to feel really depressed and tired. Her blood pressure is also very high.

- 4 Use your knowledge of the General Adaptation Syndrome to explain Elaine's experiences following the loss of her job.

(4 marks)

- 5 Explain one strength of the General Adaptation Syndrome.

(4 marks)

- 6 Explain one limitation of the General Adaptation Syndrome.

(4 marks)

AQA A Level Psychology

Stress and Illness

1	2	3	4	5		Total
/2	/2	/3	/4	/4		/15

Name: _____

Class: _____

- 1 Which two of the following statements about the role of stress in illness are true? (2 marks)
- A Cortisol inhibits production of lymphocytes. ☐
 - B Lower levels of B cells in the immune system means that antigens will not be recognised and destroyed. ☐
 - C Increased heart rate leads to lowered blood pressure increasing the risk of cardiovascular disorders. ☐
 - D Stress can influence lifestyle behaviours (e.g. smoking and drinking) which can also affect the functioning of the immune system. ☐
 - E Some studies have shown that mild stress can have immunoenhancing effects. ☐
- 2 In the context of the role of stress in illness, briefly explain what is meant by immunosuppression. (2 marks)

- 3 Outline the role of stress in the development of cardiovascular disorders. (3 marks)

Eric has just finished his final exams at university. He found this to be a very stressful time as his mother was also seriously ill. Eric was really looking forward to going on holiday after his exams, but has now caught a bad cold and has a cold sore on his lip.

- 4 Use your knowledge of the role of stress in illness to explain Eric's experience. (4 marks)

- 5 Evaluate research into the role of stress in illness. (4 marks)

AQA A Level Psychology

The Physiology of Stress

- 1 Which one of these statements regarding the hypothalamic-pituitary-adrenal system is true? (1 mark)
- A It is the body's response to long-term chronic stress. ☐
 - B It is responsible for the release of cortisol from the adrenal cortex. ☐
 - C It is the response of the autonomic nervous system. ☐
 - D It takes longer to activate than the sympathomedullary pathway. ☐

Marks for this question: AO1 = 1
Correct answer = C

- 2 Which one of the following statements about the role of cortisol is false? (1 mark)
- A It affects the metabolism of glucose in order to power the stress response. ☐
 - B It suppresses the immune system. ☐
 - C It increases sensitivity to pain. ☐
 - D It impairs cognitive performance. ☐

Marks for this question: AO1 = 1
Correct answer = C

3 Outline the sympathomedullary pathway.

(3 marks)

Marks for this question: AO1 = 3

LEVEL	MARKS	DESCRIPTION
3	3	Outline of the sympathomedullary pathway is clear, coherent and mostly accurate. Specialist terminology is used effectively.
2	2	Outline of the sympathomedullary pathway is appropriate but the answer has some inaccuracies or lacks clarity. Specialist terminology is sometimes used effectively.
1	1	Outline of the sympathomedullary pathway is limited/very limited. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

POSSIBLE CONTENT:

- ➔ This is the body's immediate response to an acute stressor and is also called the 'fight or flight response'.
- ➔ When something is **perceived** as a stressor or threat, the **amygdala** is activated which sends a distress signal to the **hypothalamus**, which then activates the **sympathetic** medullary pathway (SAM pathway).
- ➔ This activates the adrenal medulla, which releases **adrenaline** and **noradrenaline** into the blood stream.
- ➔ Adrenaline triggers **physiological** changes within the body (e.g. **increased** heart rate, increased breathing rate, increased **blood** pressure) which create the physiological arousal needed to either stand your ground and fight or run away very quickly (flight).

Credit other relevant information

Elaine lost her job 6 months ago, which was a very stressful experience. When she first found out she was really angry, her heart was beating very fast and she was sweating and shaking. After a while though she started to calm down and started to look for other jobs. However, recently Elaine has begun to feel really depressed and tired. Her blood pressure is also very high.

- 4 Use your knowledge of the General Adaptation Syndrome to explain Elaine's experiences following the loss of her job.

(4 marks)

Marks for this question: AO2 = 4

LEVEL	MARKS	DESCRIPTION
2	3 - 4	Knowledge of the General Adaptation Syndrome is mostly clear and accurate. The knowledge is applied appropriately to explain Elaine's experiences. The answer is generally coherent with effective use of terminology.
1	1 - 2	There is limited/partial knowledge of General Adaptation Syndrome. There is some appropriate application. The answer may lack coherence. The use of specialist terminology is either absent or inappropriate.
	0	No relevant content.

POSSIBLE APPLICATION (AND SELECTION) OF RELEVANT MATERIAL:

- ➔ The first stage of the General Adaptation Syndrome (GAS) is the alarm stage and this was experienced by Elaine when she found out she had lost her job. The sympathomedullary (SAM) pathway was activated to prepare her for fight or flight. This is why her heart was beating very fast and she was sweating and shaking.
- ➔ The second stage is the resistance stage and this is where the body tries to adapt to the stressful environmental demands. This is when Elaine started to calm down and began looking for other jobs. However, although she appeared to be coping, her stress hormones (e.g. cortisol) would still have been being produced in large quantities.
- ➔ The third stage is the exhaustion stage, which is where the resources needed to reduce stress have become drained and the symptoms of fight or flight reappear. Elaine is very tired and depressed (exhaustion) and her blood pressure is very high (symptom of fight or flight).

Credit other relevant information.

5 Explain one strength of the General Adaptation Syndrome.

(4 marks)

Marks for this question: AO3 = 3 marks

3 marks for a fully elaborated strength that is clear and coherent (e.g. One strength of the GAS is that there is evidence to support its assumptions. For example, Selye (1936) subjected rats to various stressors including extreme cold, excessive muscular exercise and surgical injury. He found that they went through the same pattern of responses, regardless of the stressor. Therefore, the results of Selye's research support his theory that there is a non-specific response of the body to any demand made upon it).

Or

2 marks for a reasonably elaborated strength (e.g. One strength of the GAS is that there is evidence to support its assumptions. For example, Selye (1936) subjected rats to various stressors including extreme cold and surgical injury. He found that they went through the same pattern of responses, regardless of the stressor).

Or

1 mark for a briefly stated strength (e.g. One strength of the GAS is that there is evidence to support it as studies of rats showed they went through the stages, regardless of the stressor).

Or

0 marks for an answer which includes nothing of relevance.

POSSIBLE STRENGTHS:

- ➔ Evidence to support the assumptions of the GAS. For example, Selye (1936) subjecting rats to various stressors including extreme cold, excessive muscular exercise and surgical injury. He found that they went through the same pattern of responses, regardless of the stressor.
- ➔ Selye's GAS model was able to challenge the view that bacteria is the only cause for illness, by showing that stress weakens the immune system which increases susceptibility to illness.

Credit other relevant strengths.

6 Explain one limitation of the General Adaptation Syndrome.

(4 marks)

Marks for this question: AO3 = 3 marks

3 marks for a fully elaborated limitation that is clear and coherent (e.g. One limitation is that the GAS does not take into account psychological factors that influence the stress response. For example, research has found that personality has an influence, with those who have a hardy personality seeming to thrive in stressful circumstances, while those who have a type A personality seem to be more prone to CHD. These individual differences contradict the idea of a non-specific response to stress).

Or

2 marks for a reasonably elaborated limitation (e.g. One limitation is that the GAS does not take into account psychological factors that influence the stress response. For example, research has shown that people with certain personality types are more or less resistant to stress, challenging the idea of there being a non-specific response).

Or

1 mark for a briefly stated limitation (e.g. One limitation is that the GAS does not take into account psychological factors that influence the stress response.).

Or

0 marks for an answer which includes nothing of relevance.

POSSIBLE LIMITATIONS:

- ➔ Evidence to challenge the assumptions of the GAS. For example, Mason (1971) replicated Selye's research using monkeys and used different stressors. He found that the levels of cortisol in the monkey's urine varied depending on the stressor. This challenges Selye's theory that the stress response is non-specific.
- ➔ The GAS proposes that resources become depleted so that the body can no longer fight infections. However, more recent research by Sheridan and Radmacher (1992) has shown that many 'resources' (sugars, neurotransmitters, hormones, proteins, etc.) do not become depleted even under extreme stress. It is now believed that exhaustion phase is associated with increased hormone activity, such as cortisol, and it is this rather than depletion of resources that leads to stress-related illness.
- ➔ Selye's GAS model was based on studies of animals. Therefore, it may not be appropriate to generalise the findings to humans who may respond to stress differently.
- ➔ The model does not take into account psychological factors that are involved in the ways that people respond to stress. For example, personality or gender.

Credit other relevant limitations.

More Psychology revision and support at:
www.tutor2u.net/psychology



@tutor2uPsych



ALevelPsychStudentGroup

SAMPLE