

## Biological Explanations of Offending - Mark Scheme

**Q1.**

[AO3 = 6]

Level	Mark	Description
3	5-6	Evaluation is effective and appropriate. Minor detail and / or expansion of argument is sometimes lacking. Answer is clear, coherent and focused. Specialist terminology is used effectively.
2	3-4	Evaluation is sometimes effective, mostly clear and focused. Specialist terminology is sometimes used appropriately.
1	1-2	Evaluation is very limited and lacks clarity. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

**Possible evaluation points:**

- important role in shift away from theories based on feeble-mindedness, wickedness and demonic possession
- forerunner of more scientific biological explanations
- use of evidence to support / refute the atavistic explanation
- biological determinism – racial undertones, discrimination and eugenic implications
- emphasised the criminal stereotype
- use of evidence to support / refute the explanation.

Credit other relevant material.

[6]

**Q2.**

[AO3 = 16]

Level	Marks	Description
4	13 – 16	Knowledge of biological explanations of offending behaviour is accurate and generally well detailed. Discussion is thorough. 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 biological explanations of offending behaviour is evident. There are occasional inaccuracies. Discussion 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 of biological explanations of offending behaviour is present. Focus is mainly on description. Any discussion 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 biological explanations of offending behaviour is limited. Discussion 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.
	0	No relevant content.

**Possible content:**

- Genetic explanations, focusing on ‘criminal’ genes such as the MAOA gene (which controls levels of brain serotonin) linked to criminal aggression
- Brain pathology explanations, possibly linked to genes and/or early abuse; examples include the relationship between psychopathy and abnormalities of frontal lobe and amygdala function
- Credit biological aspects of Eysenck’s theory – cortical underarousal

**Possible discussion points:**

- Evidence from MZ/DZ twin studies and family studies looking at genetic factors
- Findings support a genetic involvement in criminal behaviour but concordance rates in MZ twins are not high and leave plenty of room for non-genetic environmental factors
- Brain scanning studies that show pathology in brains of criminal psychopaths, but cannot conclude whether these abnormalities are genetic or signs of early abuse
- Some evidence from genome-wide association studies for particular genetic factors linked to criminal psychopathy, but little replication
- Counter-evidence for environmental factors in offending behaviour; socio-economic status, social learning theory
- General nature of ‘offending behaviour’ – some specific forms may be more ‘biological’ than others eg physical aggression

Credit other relevant information.