

AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Theory of Evolution Answers

Name:

M M E

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Total Marks: /22

Q1: Explain the results of Mendel's experiments with peas.

A= Award 1 mark for each of the following:

- Showed characteristics were passed on in predictable patterns
- Suggested separate units of inherited material
- Suggested dominant characteristics

(3 marks)

Q2: Why was Mendel's work not initially accepted?

A= Genes and chromosomes hadn't been discovered

(1 mark)

Q3: What did Watson, Crick and Wilkins discover?

A= DNA double helix structure

(1 mark)

Q4: Explain gene theory.

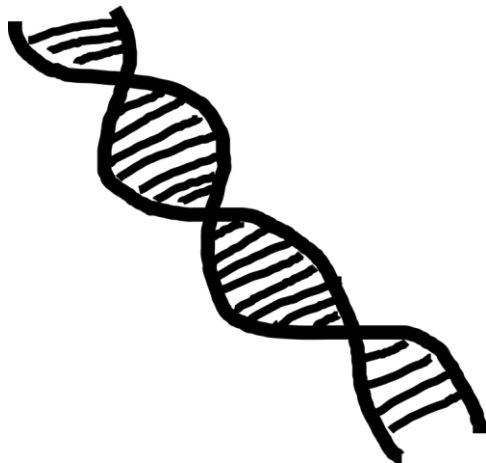
A= 1 mark for each of the following:

- Genes code for proteins
- How genes take effect

(2 marks)

Q5: Draw a double helix structure of DNA.

A=



(1 mark)

Q6: Discuss Lamarck's contributions to evolution theories

A= 1 mark for each of the following:

- Suggested animals adapt to environment
- Proposed the fountain of life theory

(2 marks)

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Q7: Describe the theory of evolution proposed by Charles Darwin.

A= 1 mark for continuous prose and 5 for any of the following:

- Individual organisms show wide range of variation for each characteristic
- Reproduction provides more offspring than the environment can support
- Survival of the fittest
- Pass on characteristics that enabled survival
- Proposed natural selection

(6 marks)

Q8: Explain why the finch species Darwin observed in the Galapagos Islands all looked different.

A= 1 mark for each of the following:

- Evolved by natural selection
- All beaks different
- Eat different food types

(3 marks)

Q9: Darwin published his work in 1859; explain why his theories of evolution weren't originally accepted.

A= 1 mark for each of the following:

- Challenged the beliefs in God
- Scientists felt not enough evidence
- Genes and genetics not yet discovered

(3 marks)