

Factors affecting Gene Expression

Question Paper

Level	A Level
Subject	Biology
Exam Board	Edexcel
Topic	Modern Genetics
Sub Topic	Factors affecting Gene Expression
Booklet	Question Paper

Time Allowed: 47 minutes

Score: /39

Percentage: /100

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	77.5%	70%	62.5%	57.5%	45%	<45%

Use the information from the article and your own knowledge to answer the following questions.

- (2)

- (6)

*(b) Suggest how researchers had genetically modified the pathogen to 'provoke an effective immune response' (paragraph 12).

(6)

- (2)

[illegible]

- (3)

Suggest how fungal genes may be expressed and affect the behaviour of these ants.

(2)

(4)

Suggest how these could have been identified as separate species.

[illegible]

Suggest the advantages to the zombie fungus of this ant behaviour.

2 One gene can give rise to more than one protein.

(a) Give **three** differences between fibrous and globular proteins.

(3)

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Suggest how the same *Sxl* gene can give rise to these different proteins.