General Certificate of Education

Environmental Studies 2441

ENVS4 Biological Resources and Sustainability

Report on the Examination

2010 examination - June series

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Set and published by the Assessment and Qualifications Alliance.

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Registered address: AQA, Devas Street, Manchester M15 6EX

General

This proved to be an accessible paper and elicited a wide range of marks, for example, the mark scheme for question 2(a) offered eleven alternatives for two marks whilst question 5(b) offered nineteen alternatives for five marks. However, there appeared to be a deterioration in examination technique with candidates not responding to key words in the question and not writing to the mark allocation ie saying three things for three marks. Furthermore, candidates continue to repeat the question in their answers (wasting time and space for scoring answers) or offer a correct response then repeat it in converse form. Also some candidates did not scrutinise diagrams or data closely. The quality of essays was varied. Some were well planned, detailed and fluent but others lacked a plan, scientific terminology and accurate punctuation.
As previously stated some candidates appeared to have little first hand experience of fieldwork and could not answer practical questions effectively.

Question 1

This required five basic definitions and was intended to be a straightforward introduction to the examination, allowing candidates to demonstrate their basic knowledge and so raise their confidence levels for the rest of the paper.

Most answered the vegetative propagation question well via ‘asexual reproduction’ or cloning from cuttings’.

The limiting factors question was poorly answered because few candidates correctly stated it was the factor in shortest supply.

The energy subsidy question was well answered, as was the by-catch question. For the sustainability question most candidates reproduced the Brundtland definition.

Question 2

(a) This question was answered well by candidates with first hand knowledge of fieldwork techniques.

(b) (i) Candidates who failed to score described instead of explained and omitted to offer a second response regards the anomalous field 5.

(b) (ii) Few candidates could explain the difference between species number and diversity index and why it was preferable.

(c) A straightforward question on practical procedures that has been asked before and was well answered, especially by candidates with first hand experience of fieldwork procedures.

Question 3

This was quite a high scoring question overall.

(a) This section was well answered by those candidates who used the diagram effectively.

(b) This question has appeared in previous examination papers and was well answered, especially by those candidates who use past papers from the previous specification as a revision resource.

(c) A straightforward question on practical procedures that has been asked before and was well answered, especially by candidates with first hand experience of fieldwork procedures.

Question 4

(a) The question tested a fundamental concept in aquatic food production systems but a significant proportion of candidates described instead of explained the data.

(b) This proved to be a challenging question for some candidates who were unable to discuss/explain the limitations of data sampling and confined their answers to basic statements that C, R, G and M 'were hard to measure'.

(c) This elicited some excellent answers which included the full range of twelve mark points (for five marks) but proved challenging for some candidates.

Question 5

(a) A straightforward question for most candidates although some ignored the microclimate element of the question and described soil erosion, flooding and habitat loss leading to species extinctions.

(b) This question was well answered and featured commendable detail and references to case studies.

(c) Candidates used all combinations of mark points to answer the question and many achieved the maximum.

Question 6

(a) Weaker candidates described the consequences of species extinctions when relating this to food production but many answered well via mark points 2, 3, 5 and 7.

(b) Candidates who failed to score two marks either described every facet of the graph in meticulous detail instead of summarising or identifying the positive correlation and then explaining it or repeating their positive correlation response in a variety of ways.

(c) Candidates who used graphs A – E as instructed and responded to the mark allocation scored well whereas some merely described graphs C – E.

(d) This proved to be a very accessible question (fifteen alternatives for five marks) for candidates who kept the definition of 'global overshoot' at the forefront of their minds whilst weaker candidates offered vague responses such as 'use less resources' or 'grow better crops' or ' reduce waste'.

Question 7

(a) The best answers focused on how farmers 'control the environment' and whilst some candidates who described farming practices in general scored well, unplanned essays that offered meandering descriptions of farming in general or described the environmental impacts of farming did not score well.

(b) This was a straightforward question that was well answered by many candidates who discussed both elements of the title and cited appropriate examples. Weaker candidates spent too much time describing the causes of soil erosion.

(c) The best answers featured a balanced discussion and provided evidence that fish farms had sustainable and unsustainable features, mostly by comparing it with commercial fishing. Weaker responses mistook the sustainability of fish farming for its efficiency or merely described its basic features. Sadly, some candidates ignored 'farming' altogether and simply described the environmental impacts of commercial fishing.

Mark Ranges and Award of Grades
Grade boundaries and cumulative percentage grades are available on the **Results statistics** page of the AQA Website.