SPECIMEN

Advanced Subsidiary GCE

GEOLOGY

Unit F793: Fieldwork Task

F793

Specimen Task

For use from September 2008 to June 2009.

All items required by teachers and candidates for this task are included in this pack.

INFORMATION FOR CANDIDATES

- Fieldwork Task

INFORMATION FOR TEACHERS

- Mark scheme.
- Instructions for Teachers and Technicians.

OCR
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SPECIMEN

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F793

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Specimen Task

For use from September 2008 to June 2009.

Candidates answer on separate writing paper.
Additional Materials:
loose leaf writing paper

INSTRUCTIONS TO CANDIDATES

- Answer **all** parts of the task.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [ ] at the end of each part of the task.
- The total number of marks for this task is **20.**

ADVICE TO CANDIDATES

- Read each part carefully and make sure you know what you have to do before starting your answer.

FOR TEACHER'S USE		
	Max.	Mark
TOTAL	20	

This task consists of **3** printed pages and **1** blank page.

Kimmeridge Bay, Dorset

Activity 1

- Sketch the fault accurately and label as many features as you can see.
- Measure the thickness of a number of different beds.
- Describe each of the different rock types using measurements and technical terms.
- Measure the angle of the fault.
- Estimate the direction and amount of throw on the fault.
- Decide what type of fault you have drawn.
- Describe any features which are associated with the faulting, making detailed sketches if appropriate.
- Find a mineral vein and describe how it relates to the fault.

Activity 2

- Measure the direction of joints on both the limb and crest of the fold using a method that will give a data set of accurate results to plot on a rose diagram. Describe how you could improve your methods for collecting joint data and how they could be changed with different equipment. Comment on the differences between your data and group data. Explain the relationship of the joints to the fold.
- Decide where **a fold** could be and estimate the dip of the limbs where possible. Make a sketch of the fold structure shown in the cliff. Measure and mark your dips on the sketch.
- Describe the oil well in relation to the fold structure.
- Find and describe **mineral veins** and **slickensides** and state how they relate to the joints.
- Describe any field hazards and the safety procedures followed.

Total [20]

END OF TASK

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OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Advanced Subsidiary GCE

GEOLOGY F793

Unit F793: Fieldwork Task

Specimen Mark Scheme

The maximum mark for this task is **20**.

For use from September 2008 to June 2009.

Sample marking points that provide a range of marks to cover a variety of field work are given below. It is not an inclusive list as some localities will provide the opportunity for additional observations and measurements.

Question Number	Answer	Max Mark
(a)(i)	safe working in the field, description of hazards, use of geological code, issues of geoconservation	[1]
	field sketches of fold, fault, joints and slickensides structures	[1]
	observations of fault, fold, unconformity, joint, igneous structure, mineral vein, fossils or sedimentary structure	[2]
	observations of rock types	[1]
(a)(ii)	measurements of dip of beds, measurements of bed thicknesses	[1]
	measurements of fault downthrow and dip, fold limbs, true and apparent dip and mineral vein	[2]
	measurements of joint directions on both limb and crest of fold so that group data can be collected to draw rose diagram	[1]
	measurements of grain sizes of rocks	[1]
(b)(i)	descriptions of rocks bituminous shale, clay, coccolithic limestone using technical terms and identification of rocks and minerals using secondary sources such as data tables	[2]
	annotated field sketches and descriptions of structures using technical terms	[2]
	methods / techniques carried out in the field and validity reviewed	[1]
(b)(ii)	tables of joint measurements and data plotted on rose diagram	[2]
	measurements used to identify rocks and structures	
	accuracy of data collection and reliability of data to allow joints to be matched to the fold and conclusions drawn as to the types of joints at the crest and limbs of the fold	[3]
	Total	**[20]**

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Advanced Subsidiary GCE

GEOLOGY F793

Unit F793: Fieldwork Task

Instructions for Teachers and Technicians

For use from September 2008 to June 2009.

This task relates to Module 4, Unit F791. There is no time limit but it is expected that it can be completed within one timetabled session.

It is assumed that you will have completed the teaching of the above module before setting your students this task. This module has links to other modules which contain related learning experiences – please refer to your specification.

Candidates may attempt more than one Fieldwork task with the best mark from this type of task being used towards the overall mark for Unit F793.

Preparing for the assessment

It is expected that before candidates attempt the Fieldwork Task (Unit F793) they will have had some general preparation in their lessons. They will be assessed on a number of skills such as demonstration of skilful and safe practical techniques using suitable qualitative methods, the ability to make and record valid observations, and the ability to organise results suitably. It is therefore essential that they should have some advance practice in these areas so that they can maximise their attainment.

Preparing candidates

At the start of the task the candidates should be given the task sheet.

Candidates must work on the task individually under controlled conditions with the completed task being submitted to the teacher at the end of the lesson. Completed tasks should be kept under secure conditions until results are issued by OCR.

Candidates should not be given the opportunity to redraft their work, as this is likely to require an input of specific advice. If a teacher feels that a candidate has under-performed, the candidate may be given an alternative task. In such cases it is essential that the candidate be given detailed feedback on the completed assessment before undertaking another Fieldwork Task. Candidates are permitted to take each task **once** only.

Assessing the candidate's work

The mark scheme supplied with this pack should be used to determine a candidate's mark out of a total of 20 marks. The cover sheet for the task contains a grid for ease of recording marks. To aid moderators it is preferable that teachers mark work using red ink, including any appropriate annotations to support the award of marks.

Notes to assist teachers with this task

Teachers must trial the task before candidates are given it, to ensure that the apparatus, materials, chemicals etc provided by the centre are appropriate. The teacher carrying out the trial must complete a candidate's task sheet showing the results obtained, and retain this, clearly labelled, so that it can be provided to the moderator when requested.

Health and Safety

Attention is drawn to Appendix C of the specification.

Fieldwork tasks will need to be submitted to the board for approval before the fieldwork takes place to ensure that the activity is suitable for assessment. The example provided based at Kimmeridge bay is a half day exercise that covers quantitative measurements of bed thickness and structures of fold, faults, joints and slickensides. The qualitative observations are the rock types, fossils, mineral veins and the structures that are drawn and described.

The task has content that relates to the AS units.

Fieldwork may be assessed as an alternative practical task as it can provide all the same skills that are shown in the task provided by OCR.

The centre will need to ensure that the field location chosen provides suitable localities that will allow measurements of dips and a variety of structures and a range of rock types for observations, descriptions and sketches.

A sample field exercise based on the Jurassic of Kimmeridge Bay, Dorset is an illustration of fieldwork that allows for a range of structures and rock types even though the geology is limited to sedimentary rocks.

Original pages from field notebooks will be marked unless exceptional circumstances such as heavy rain, do not allow this. The field work will be supervised by the centre so that the tasks take place under the same controlled conditions as the OCR provided task.

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