



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

FISHERIES SCIENCE

5151/02

Paper 2

October/November 2007

1 hour 30 minutes

Additional Materials: Answer Booklet/Paper
 Graph paper



READ THESE INSTRUCTIONS FIRST

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.
Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **both** questions in **Section A**. Answer any **two** questions in **Section B**.
At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [] at the end of each question or part question.

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



Section A

Answer **both** questions in this section.

- 1 (a) Table 1.1 gives information about fish landings in the Maldives for the year 2002.

Table 1.1

Coastal catch	Fish landings (in thousands of metric tonnes)
Skipjack tuna	115.3
Yellow fin tuna	21.7
Other tuna	7.2
Reef and bottom-living fish	16.0

[Data from: *Ministry of Fisheries, Agriculture and Marine Resources*]

- (i) Calculate the total fish landings for 2002. [2]
- (ii) Draw and label a bar chart of the information in Table 1.1. [7]
- (iii) Name **one** species of bottom-living fish caught in the Maldives. [1]
- (b) Fish Aggregation Devices (FADs) were introduced to the Maldives in 1981.
- (i) Draw a labelled diagram of a modern FAD. [3]
- (ii) Explain why FADs attract tuna. [2]
- 2 You are asked to plan an investigation into the changes in temperature and light penetration in a lagoon, over a period of 5 days.
- (a) Describe the methods you would use to measure and record the changes in temperature and light penetration. [8]
- (b) Draw a suitable table to record your results of this investigation. [4]
- (c) Sketch a graph to show the results you would expect for changes in temperature. [3]

Section B

Answer **two** questions from this section.

- 3** Explain how each of the following factors affect the distribution and abundance of marine organisms.
- (a) Light [5]
 - (b) Dissolved oxygen [5]
 - (c) Salinity [5]
- 4** Give an illustrated account of the structure, reproduction and life cycle of coral polyps. [15]
- 5** Describe how each of the following methods are used to preserve fish.
- (a) Chilling [5]
 - (b) Freezing [5]
 - (c) Irradiation [5]
- 6** Write an essay on the conservation of endangered species in the Maldives. [15]

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