

MARK SCHEME for the May/June 2014 series

**0417 INFORMATION AND COMMUNICATION
TECHNOLOGY**

0417/22

Paper 2 (Practical Test A), maximum raw mark 80

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2014 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

Auto filename & path

Centre number, Candidate number

UK FISHING INDUSTRY 2011

Header

Filename & path left, Centre & candidate numbers right aligned

1 mark

Subtitle

Data entry 100% accurate, right aligned
14 pt sans-serif, italic

1 mark

1 mark

Draft report by: Candidate Name

Title

Data entry 100% accurate, centred
28 pt, sans-serif, underlined

1 mark

1 mark

EU Fishing fleet

3–4 pt outside border applied to titles
Light grey shading

1 mark

1 mark

In 2011, the highest number of fishing vessels in the European Union was Spain's with 6,444. Spain's fleet is almost double that of the UK. The UK fishing fleet with 6,444 vessels provides more detail:

Body text

2 columns, 2 cm col spacing
12 pt, serif font
Single line spacing, fully justified

1 mark

1 mark

1 mark

- England
- Wales
- Scotland
- Northern Ireland
- Islands (Guernsey, Jersey and the Isle of Man)

Bullets

Square bullets applied
Bullet indented to 2.5 cm

1 mark

1 mark

LARGEST CAPACITY EU STATES			
	Number of vessels	Gross Tonnage	Engine Power (kW)
Spain	10,503	398,894	900,663
United Kingdom	6,444	202,048	808,887
Italy	13,077	175,531	1,058,610
France	7,219	171,301	1,002,829
Netherlands	845	152,666	343,705
Portugal	8,380	101,575	371,579
Greece	16,663	83,804	483,193
Denmark	9,799	101,575	371,579
Germany	1,000	101,575	371,579
Ireland	1,000	101,575	371,579

Footer

Date left, Candidate name right

1 mark

The number of registered UK fishing vessels has fallen by 26% since 1996. This is due to a number of factors over the period.

Table

Complete, in correct place within column width
Belgium row deleted (above Portugal)
1st row – cells merged, heading centred
bold and underlined
2nd row – bold, centred, headings wrapped
Font matches body text (12 pt, serif)
Text on one line (rows 3–12),
numbers right aligned, gridlines displayed

1 mark

1 mark

1 mark

1 mark

1 mark

1 mark

Wales, accounting for 48%, whilst Scottish vessels make up 52%. Although Scotland has fewer vessels, they have the highest **share** of capacity and power. Part of the reason that England has a larger number of vessels but a smaller **share** of capacity and power is that the English fleet has a higher proportion of smaller vessels.

Date

Cambridge International Examinations 2014

Candidate name

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Each fleet in the UK are engaged in different fishing opportunities depending on the area of the country. The Scottish fleet are catching fish that are high volume but lower priced. This includes catches such as the herring and mackerel in the North Sea and West of Scotland waters. As a result the Scottish fleet has higher capacity vessels. These can cover large sea areas and catch several hundred tonnes of fish per vessel in order to be economically viable.

The English fleet are catching fish which are typically lower volume but higher priced, such as the Channel fisheries for sole and plaice. In addition, a greater proportion of the fleet are smaller vessels covering inshore areas. As a result the English fleet has a greater proportion of smaller vessels that are economically viable as they catch smaller quantities of more valuable fish.

Administration Port

In 2011 Newlyn in Cornwall had the largest number of vessels in its administration with 622; 88% of these were smaller boats. The fleet administered by Fraserburgh in Scotland administered fewer boats with 206 but by far the largest capacity with 35,100 gross tonnage and 96,400 kW power. The largest proportion of 10 metre and under vessels was in Hastings with 93%. Administration ports in Wales and the south and west coast of England also had large proportions of smaller vessels.

Vessel Age

In total, 62% of the UK fleet (whose age is known) were built more than 20 years ago. While the number of vessels being built since 1991 has decreased, the average capacity and power of these vessels has increased by 50%.

Centre number, Candidate number

Number of Fishermen

Since records began in 1938 the number of fishermen working on UK registered vessels has decreased by 74%. In the last decade the numbers have decreased by 15% from about 15,000 to 12,400. This decrease is due to reductions in fleet size and fishing opportunities. Milford Haven, Wales has the largest number of fishermen in the UK with 991, Newlyn in Cornwall has 872 and Fraserburgh has the largest number of fishermen in Scotland with 788.

Accidents, Lost Vessels and Fatalities

During 2011, 299 accidents involving UK registered fishing vessels were reported compared to 272 in 2010. There were 8 fatalities to crew compared with 5 in 2010 and 24 fishing vessels were reported lost. This is the highest number of lost vessels recorded since 2005. The routine wearing of personal flotation devices when fishermen are working on the open deck would reduce the unnecessary loss of life that often occurs when someone goes overboard.

Stock Recovery

Decommissioning exercises over the past decade have focussed on fleet targeting cod, vessels that used trawl fishing for whitefish and beam trawl fishing. This has reduced the over 10 metre fleet by 46% since 2001.

As part of the measures for recovery of fish stocks, sole and cod recovery zones were established to control fishing in specific areas. Vessels fishing with beam trawls or static nets of a certain mesh size had limits imposed on the number of days they could spend at sea.

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To prevent growth in fishing activity in the sea areas to the west, an area was established known as the ‘Western Waters’ in which fishing effort is limited. Regulated activity is permitted for UK registered vessels in only four of the nine sea areas within the Western Waters. Ceilings exist on the maximum fishing effort to be exerted by large vessels targeting certain species in these areas.

Centre number, Candidate number of fishing vessels, reductions in quotas, fishing effort limits and stock management plans.

This report is intended to provide as accurate a picture as possible of fishing activity carried out by the UK fleet.

Landings



The value of fish landed by the UK fleet in 2011 increased compared with 2010. UK vessels landed 600,000 tonnes of sea fish (including shellfish) into the UK and abroad with a value of £828 million. This represents a 17% increase in value compared with 2010. The rise in value is mainly due

to an increase of more than 40% in the average value of pelagic fish.

Shellfish formed the majority of landings by the UK fleet into England, Wales and Northern Ireland whilst pelagic fish had the highest **share** of landings into Scotland. The large increase in shellfish landings may be due to diversion of fishing activity into this sector where there are fewer restrictions and quotas, and improvements in data collection and reporting.

There has been a drastic decline in the landings of demersal fish (eg cod, haddock and plaice) over the past 50 years. There are a number of causes including reductions in fleet size, declining fish stocks and restricted fishing opportunities. EU and UK regulation has limited demersal fishing activity in recent decades, through decommissioning

Subheadings (8)

Subheads centred, sans-serif, 14 pt, bold, underline 1 mark

Image

- Fish image in correct location 1 mark
- Image flipped to face right 1 mark
- Text wrap, aligned left & top 1 mark
- Resized 5 cm wide, aspect ratio maintained 1 mark

Page layout

- A4 Landscape 1 mark
- Top, left & right margins 2 cm, bottom 1.5 cm 1 mark
- Consistent spacing with cls above/below items 1 mark
- Document complete/paragraphs intact, no widows or orphans, split lists, split tables, blank pages 1 mark

Replace 3 instances of **amount** with **share** 1 mark

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Harbour fees due

Admin_Port	Home	Length	Hull	Shellfish	Fees_Due	
PLYMOUTH	SE74	SALCOMBE LASS	11.0			
POOLE	SE21	SOUWEST LADY	11.0			
NORTH SHIELDS	BH155	BORDER QUEEN	11.0			
EYEMOUTH	LH145	TRITON	11.0	WOOD	Yes £428.35	
STORNOWAY	CY263	FAIR LASS	11.1	WOOD	Yes £430.29	
OBAN	OB461	DAWN TREADER	11.1	WOOD	Yes £430.68	
POOLE	SWANAGE	PW7	THREE WISHES	11.1	WOOD	Yes £430.68
MILFORD HAVEN	LH75	TENACITY	11.1	WOOD	Yes £431.84	
ULLAPOOL	FR111	TENACITY	11.1	WOOD	Yes £432.62	
FRASERBURGH	GARDENS	TENACITY	11.2	WOOD	Yes £434.17	
NORTH SHIELDS	BLYTH	BH174	HARTLEY	11.2	WOOD	Yes £435.34
NORTH SHIELDS	SEAHAM	SD36	BOYS OWN	11.3	WOOD	Yes £436.50
CAMPBELTOWN	CAMPBELTOWN	TT76	DALRIADA	11.3	WOOD	Yes £437.66
SCARBOROUGH	BRIDLINGTON	FH198	HARVESTER	11.3	WOOD	Yes £437.66
NORTH SHIELDS	AMBLE	WY173	EMMA JANE	11.3	WOOD	Yes £437.66
NORTH SHIELDS	SEAHAM	SD47	TINA	11.3	WOOD	Yes £438.44
KIRKWALL	STROMNESS	K69	MERLIN 11	11.3	WOOD	Yes £439.99
POOLE	PORTSMOUTH	P11	SUNSHINE	11.4	WOOD	Yes £442.32
LOCHINVER	LOCHINVER	UL48	FORTITUDE	11.4	WOOD	Yes £443.48
POOLE	SELSEY	NN404	TOBY ROC	11.4	WOOD	Yes £444.26
NORTH SHIELDS	NORTH SHIELDS	SN45	NORTH EASTERN	11.5	WOOD	Yes £446.59
MILFORD HAVEN	MILFORD HAVEN	M38	K T J	11.6	WOOD	Yes £448.14
SCARBOROUGH	WHITBY	WY144	JANE ELIZABETH	11.6	WOOD	Yes £448.14
LOWESTOFT	LOWESTOFT	LT446	G AND E	11.6	WOOD	Yes £450.47
KIRKWALL				11.7	WOOD	Yes £452.41
POOLE				11.7	WOOD	Yes £454.35
SCARBOROUGH				11.8	WOOD	Yes £455.90
PORTREE	PORTREE	BRD75	SERENE	11.8	WOOD	Yes £457.84

Calculated field: Fees_Due
 Heading 100% accurate 1 mark
 Calculated field 1 mark
 Formatted £ to 2 dp 1 mark

Candidate name, Centre number, Candidate number

Title
 Correct, 100% accurate 1 mark

Landscape, 1 page wide 1 mark
 Name, Centre No & candidate no top right 1 mark

TENACITY changed to **CONWY** 1 mark

Search
 Length is ≥ 11 and < 12 1 mark
 Hull is **WOOD**, Shellfish = **Yes**, Scallop = **No** 1 mark

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Candidate name, Centre number, Candidate number

Admin_Port	Home_Port	Port_ID	Vessel_Name	Length	Hull	Shellfish	Fees_Due
KIRKWALL	KIRKWALL	PE91	CALON MOR	11.8	WOOD	Yes	£457.84
STORNOWAY	SOUTH LOCHS	SY799	ONWARD	11.8	WOOD	Yes	£459.00
STORNOWAY	GRIMSAY	CY141	LIZANNA	11.9	WOOD	Yes	£460.17
NEWLYN	MEVAGISSEY	FH76	GALWAD-Y-MOR	11.9	WOOD	Yes	£461.33
PLYMOUTH	SALCOMBE	SE150	CLAIRE LOUISE	11.9	WOOD	Yes	£461.72
MILFORD HAVEN	ABERYSTWYTH	AB7	QUAKER	11.9	WOOD	Yes	£461.72
OBAN	OBAN	UL144	KYRENE	11.9	WOOD	Yes	£462.11
SCARBOROUGH	BRIDLINGTON	SH24	MOYALLON	11.9	WOOD	Yes	£462.50
KIRKWALL	KIRKWALL	K49	SHALIMAR	11.9	WOOD	Yes	£463.66
POOLE	ISLE OF WIGHT	SU116	GALWAD-Y-MOR	11.9	WOOD	Yes	£463.66
KINLOCHBERVIE	KINLOCHBERVIE	F24	LOUANDRIC	12.0	WOOD	Yes	£464.82
POOLE	LYMINGTON	BD87	CHALE	12.0	WOOD	Yes	£464.82

3 records added (ignore *Fees_Due*) 3 marks
Sorted ascending on *Length* 1 mark
Specified fields, correct order, all data fully visible 1 mark

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Title

Correct, 100% accurate 1 mark

Search (11 records)

Port_ID begins with **BM** 1 mark
Admin_Port not **Brixham** 1 mark

Vessels matching criteria

Port_ID	Admin_Port	Home_Port	Vessel_Name	Length
BM254	AYR	UNSPECIFIED SPANISH PORT	BLUE GATE	38.6
BM27	HASTINGS	SHOREHAM	OUR MIRANDA	25.3
BM30	HASTINGS	SHOREHAM	SARA LENA	18.2
BM114	HASTINGS	HASTINGS	SEIONT A	17.0
BM116	HASTINGS	WHITSTABLE	OUR SARAH JAYNE	14.0
BM265	HASTINGS	HASTINGS	JOANNA C	13.9
BM24	LOWESTOFT	PAGELSHAM	PEACE AND PLENTY III	11.7
BM211	MILFORD HAVEN	SWANSEA	SUE ELLEN	11.9
BM367	PLYMOUTH	PLYMOUTH	BON ACCORD	14.9
BM493	PLYMOUTH	PLYMOUTH	OCEAN SPIRIT	13.7
BM190	PLYMOUTH	PLYMOUTH	MARINA	11.4
Average length				17.3

Sort

Sort ascending *Admin_Port*,
descending *Length* 1 mark

Calculates average *Length*, correct position 1 mark
Formatted to 1 dp 1 mark
Label 100% accurate 1 mark

Layout

Portrait, 1 page wide, Candidate details bottom 1 mark
Specified fields, correct order, data and labels all visible 1 mark

Candidate name, Centre number, Candidate number

Master slide

3 pt horizontal line across slide about 3 cm from top 1 mark

Text **FISH LANDINGS**, black 48 pt serif, above line, top right, no wrap 1 mark

Boat clipart top left, fits space 1 mark

Centre No, Cand No, Name, 10 pt, serif, bottom left 1 mark

Auto slide no, bottom centre 1 mark

All items created and appear on all slides with no overlap 1 mark



Import 5 slides correctly 1 mark

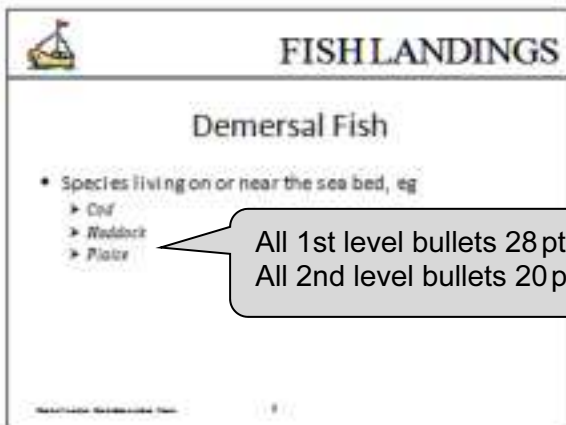
New slide as first slide, title & subtitle layout 1 mark

Title and subtitle correct 1 mark

Slide 1 – star shape, bottom right 1 mark


star text legible & correct 1 mark





All 1st level bullets 28 pt, square shaped bullet style eg ■ 1 mark

All 2nd level bullets 20 pt, italic, arrow shaped bullet style eg ➤ 1 mark



FISH LANDINGS

Pelagic Fish

- Species found mainly in shoals in mid-water or near the surface of the sea, eg
 - Mackerel
 - Herring
 - Blue whiting

New Course, Specification 2014




FISH LANDINGS

Shellfish

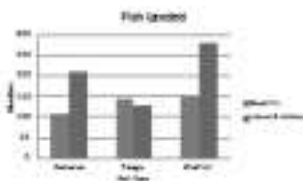
- Covers all crustaceans and molluscs, eg
 - Shrimps
 - Nephrops
 - Crabs

New Course, Specification 2014



FISH LANDINGS

Landings by UK Vessels



Species	Landings (tonnes)	Value (£ million)
Demersal species	~150	~140
Pelagic species	~100	~110
Shellfish	~100	~150

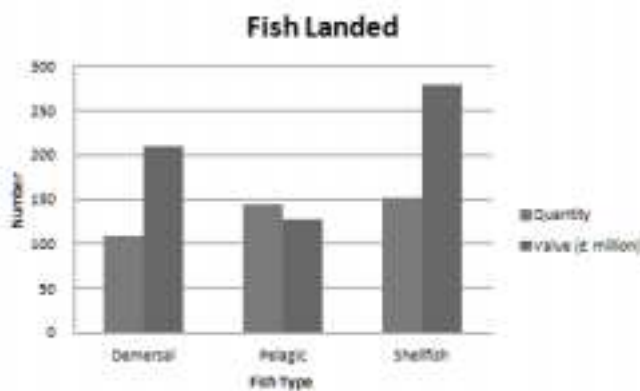
- Demersal species
 - 27% of landings
 - 34% of value
- Pelagic species
 - 38% of landings
 - 27% of value
- Shellfish
 - 37% of landings
 - 45% of value

New Course, Specification 2014



FISH LANDINGS

Landings by UK Vessels



- Demersal species
 - 27% of landings
 - 34% of value
- Pelagic species
 - 36% of landings
 - 21% of value
- Shellfish
 - 37% of landings
 - 45% of value

Centre Number, Candidate number, Name

8

Vertical bar chart correct data, slide 6, left of bullets 1 mark
 Chart titles 100% correct, all labels displayed in full 1 mark
Print – Handout slides – 3 to page **and** correct single slide 1 mark

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Candidate name, Centre number, Candidate number

Page layout Evidence



Marked above in document

Step 34 - Database field structure

J224REGISTER	
Field Name	Data Type
Vessel_Name	Text
Port_ID	Text
Admin_Port	Text
Home_Port	Text
Length	Number
Hull	Text
Build_Country	Text
Shellfish	Yes/No
Scallop	Yes/No

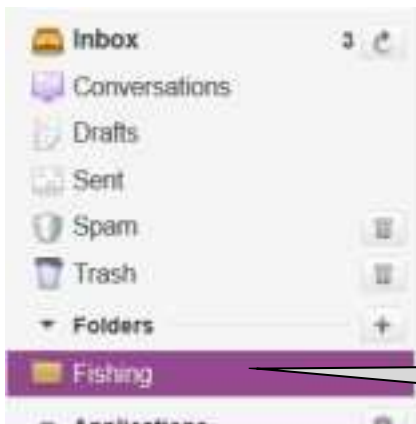
General	
Field Name	Field Properties
Field Size	Single
Format	Fixed
Decimal Places	1
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Indexed	No
Smart Tags	
Text Align	General

Database structure
 Field names and formats as given for text and number 1 mark
Tonnage field not present 1 mark
Length formatted to 1 dp (check both reports) 1 mark
Shellfish display Yes/No on report 1 mark
 Boolean/logic/Yes/No set in design for both 1 mark

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Candidate number, Centre number, Candidate number

Step 52 – folder evidence



Folder named **Fishing** created in inbox structure 1 mark

Step 53 – Contact details stored in address book/contacts



Address Book/Contacts
Contact entry Yassin Sayed, y.sayed@cie.org.uk 1 mark

Step 56 – Email message



To: design.h@cie.org.uk 1 mark
 cc: Yassin Sayed (y.sayed@cie.org.uk) 1 mark
 Subject: *Fishing Report* 1 mark
 Only document attached, appropriate file extension (not rtf) 1 mark
 Message text correct 1 mark