

**CAMBRIDGE INTERNATIONAL EXAMINATIONS**  
International General Certificate of Secondary Education

**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.

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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 1 mark  
14 pt sans-serif, italic 1 mark

*Draft report by: Candidate Name*

**Title**

Data entry 100% accurate, centred 1 mark  
28pt, sans-serif, underlined 1 mark

3–4 pt outside border applied to titles 1 mark  
Light grey shading 1 mark

The UK fishing fleet in

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

**Bullets**

Square bullets applied 1 mark  
Bullet indented to 2.5 cm 1 mark

**Body text**

2 columns, 2 cm col spacing 1 mark  
12pt, serif font 1 mark  
Single line spacing, fully justified 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 the size of the UK's fleet with 13,077 vessels. The following table provides more detail:

**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	100,000	300,000
Germany	1,000	100,000	100,000
Ireland	1,000	100,000	100,000

**Footer**

Date left, Candidate name right 1 mark

**Table**

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

The number of registered UK fishing vessels has fallen by 26% since 1996. ... The ... 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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Auto filename & path

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	DUNBAR	LH145	TRITON	11.0	WOOD	Yes	£428.35
STORNOWAY	NORTH UIST	CY263	FAIR LASS	11.1	WOOD	Yes	£430.29
OBAN	TOBERMORY (ISLE OF MULL)	OB461	DAWN TREADER	11.1	WOOD	Yes	£430.68
<b>POOLE</b>	<b>SWANAGE</b>	<b>PW7</b>	<b>THREE WISHES</b>	<b>11.1</b>	<b>WOOD</b>	<b>Yes</b>	£430.68
MILFORD HAVEN	<b>CONWY</b>	LH75	TENACITY	11.1	WOOD	Yes	£431.84
ULLAPOOL	ULLAPOOL	FR111	TENACITY	11.1	WOOD	Yes	£432.62
FRASERBURGH	GARDENS			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
<b>NORTH SHIELDS</b>	<b>SEAHAM</b>	<b>SD47</b>	<b>TINA</b>	<b>11.3</b>	<b>WOOD</b>	<b>Yes</b>	£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  $\geq 11$  and  $< 12$  1 mark  
Hull is **WOOD**, Shellfish = **Yes**, Scallop = **No** 1 mark

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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
<b>PLYMOUTH</b>	<b>SALCOMBE</b>	<b>SE150</b>	<b>CLAIRE LOUISE</b>	<b>11.9</b>	<b>WOOD</b>	<b>Yes</b>	£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 markCalculates 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

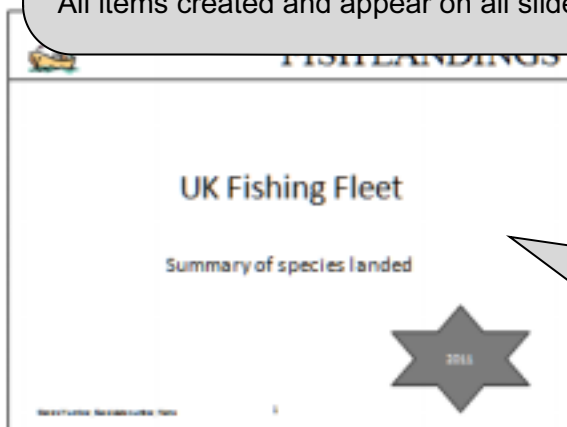
Specified fields, correct order, data and labels all visible 1 mark

Candidate name, Centre number, Candidate number

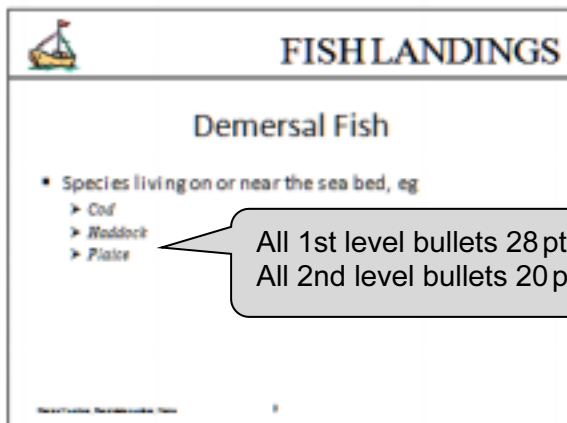
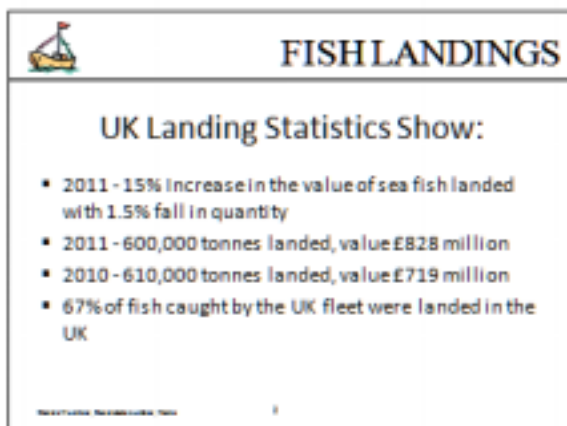
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**Master slide**

- 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



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## 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 Topic: The Atlantic Sea

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## FISH LANDINGS

### Shellfish

- Covers all crustaceans and molluscs, eg
  - Scallops
  - Nephrops
  - Crab

New Topic: The Atlantic Sea

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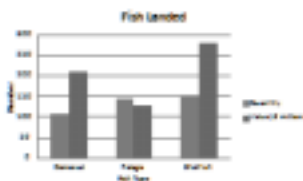
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## FISH LANDINGS

### Landings by UK Vessels



Species	Quantity (tonnes)	% of landings	% of value
Demersal species	270	37%	34%
Pelagic species	210	36%	21%
Shellfish	370	37%	45%

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

New Topic: The Atlantic Sea

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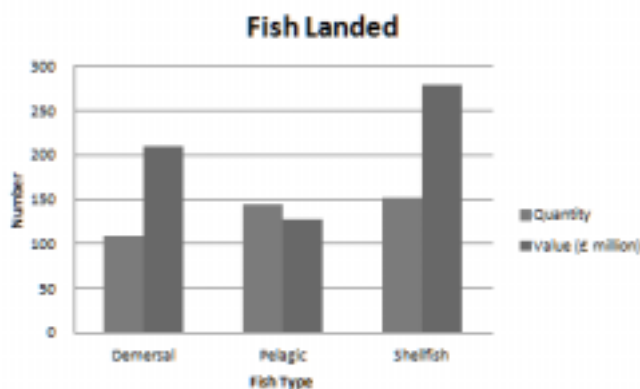
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# FISH LANDINGS

## 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

6

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

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

Field Name	Data Type
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

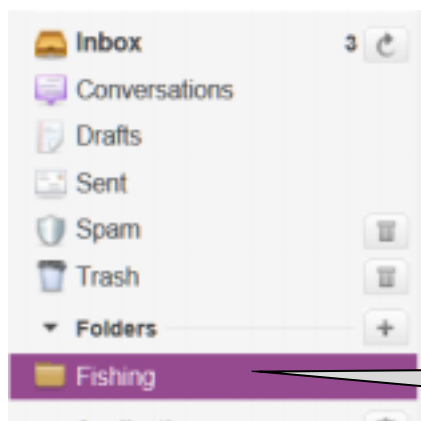
#### Database structure

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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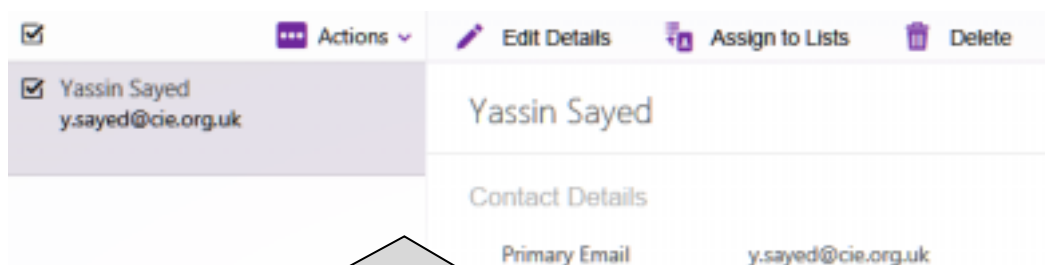
Candidate number, Centre number, Candidate number

Step 52 – folder evidence



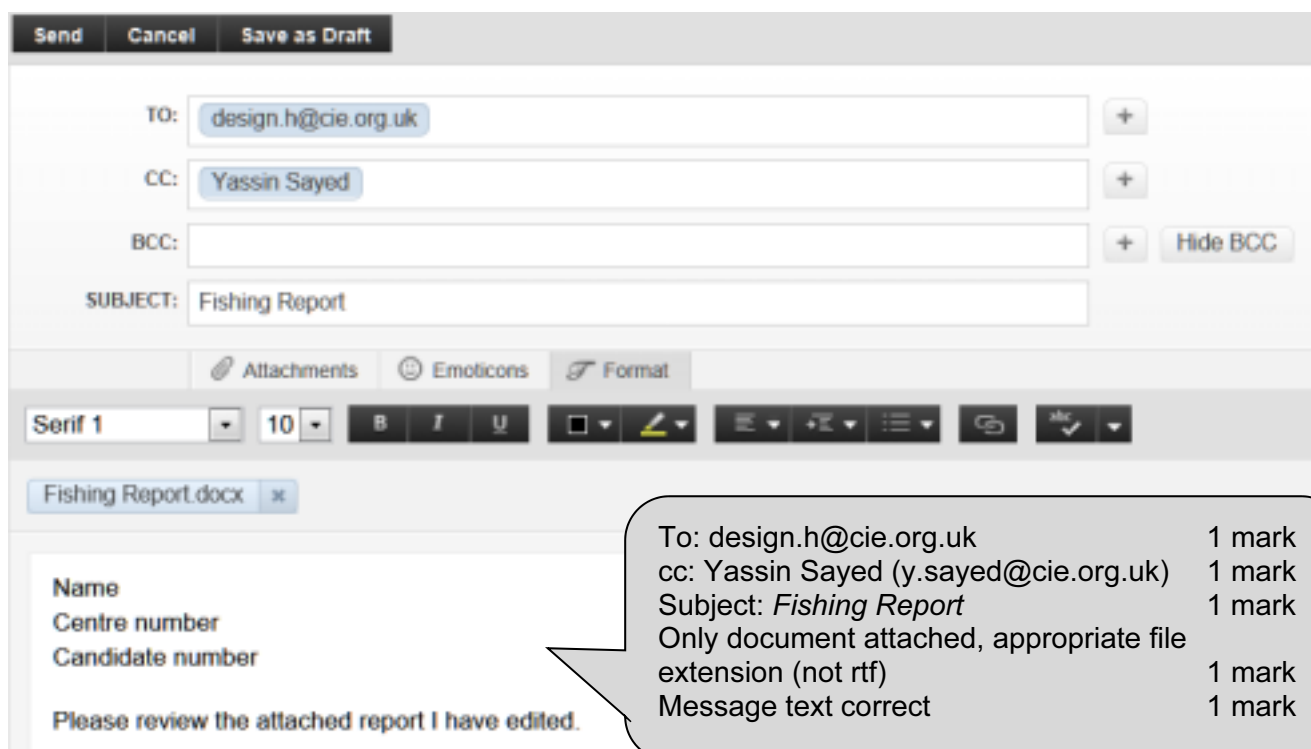
Folder named **Fishing** created in inbox structure 1 mark

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