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Cambridge Assessment International Education

Cambridge International AS & A Level

INFORMATION TECHNOLOGY **9626/04**

Paper 4 Advanced Practical **March 2021**

MARK SCHEME

Maximum Mark: 110

Published

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 International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the March 2021 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

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Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1: Marks must be awarded in line with: the specific content of the mark scheme or the generic level descriptors for the question the specific skills defined in the mark scheme or in the generic level descriptors for the question the standard of response required by a candidate as exemplified by the standardisation scripts.
GENERIC MARKING PRINCIPLE 2: Marks awarded are always **whole marks** (not half marks, or other fractions).
GENERIC MARKING PRINCIPLE 3: Marks must be awarded **positively**: marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate marks are awarded when candidates clearly demonstrate what they know and can do marks are not deducted for errors marks are not deducted for omissions answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.
GENERIC MARKING PRINCIPLE 4: Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.
GENERIC MARKING PRINCIPLE 5: Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).
GENERIC MARKING PRINCIPLE 6: Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

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			Mark
Task 1	All of Continents complete and coloured consistent green		1
World Map	All of all islands coloured green		1
	Oceans coloured blue		1
	Seas coloured blue *(Including Mediterranean, Black Sea, Red Sea, Baltic Sea, Persian Gulf)*		1
	Great lakes coloured blue		1
	Single clear outlines/edges ***correct green and blue*** *shown within outline/edge*		1
Global Logo	Globe saved as .svg and 500 px bitmap		1
	Circular and filled completely *all within outline*		1
	Land areas undistorted – shapes preserved *All Newfoundland, tip of South America, left of India*	Must be an image of part of the map within a circle with a band for these marks	1
	… Major land areas correct place		1
	Land areas coloured green		1
	… Seas coloured blue		1
	Band shape and position correct		1
	...Band proportions correct		1
	Band has gradient fill		1
	Fill is light to dark red		1
	Fill is left to right *not transparent*		1
	Text is correct	Text must be within a band on a valid globe for these marks	1
	Text is sans-serif		1
	Text position is correct – *central on globe curving upwards to right*		1
	Text position on **path** in band *not too near top or bottom*		1
	...Text spacing is even – *not individual letters*		1
	… Letters in text are aligned and oriented **regularly**		1
	Band inner surface shown as continuous		1
	Background is transparent in **Bitmap**. Independent		1
			25

Tawara Global

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Task 2	Circle used as a **Mask –** all visible		1
World Spin	… Globe/mask fits/fills stage		1
	Stage is black		1
	Stage is square		1
	Initial Map fills **mask** *not small, not clipped. All Greenland and all South America must be visible*		1
	All map seen during animation	Must be created on square stage with a circle for these marks	1
	… Land areas undistorted during animation		1
	… Land areas complete and consistent green		1
	… All sea areas remain visible		1
	… Sea areas consistent blue		1
	Map travels behind (any) mask	Map must move for these marks	1
	…Map travels left to right		1
	...Complete pass in 3 secs		1
	…Travel is smooth		1
	Distance between copies of map correct *Bering straits size ok*		1
	Map always invisible left of mask		1
	Map always invisible right of mask		1
	Animation loops *more than one copy of the map used*		1
	… No *(or minimal)* jump at Restart position		1
	… Movement is horizontal only		1
			20

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Task 3	Customers table created in **Delivery_Bookings**		1
Delivery_ Bookings_ Database	Correct fields and key		1
	Bookings table created		1
	Field names 100% correct (Including Case)	Fields must be in a separate table for these marks	1
	Customer_ID field inserted		1
	Relationship on Customer_ID		1
	Delivery_ID field inserted		1
	Delivery_ID *AutoNumber and key*		1
	Collection_date field inserted *Date/Time Data type*		1
	Delivery_date field inserted		1
	Delivery_date a calculated field – Must see *use of Weekday( ) if in form or Query*		1
	Weight field inserted		1
	Charge field inserted		1
	Charge a calculated field – *Must see use of IIf([Weight….) if in Form or Query*		1

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Task 3	Form created containing only the specified fields	1
Database Form	Title text, sizes and positions **correct** *Tawara UK larger – aligned as shown*	1
	Titles – Grey and red sans-serif text on yellow background –	1
	Field sizes as per QP *Left and right aligned*	1
	Customer_ID dropdown	1
	3 fields in dropdown – *Customer_ID, GivenName, Surname*	1
	Records in order of surname	1
	Date picker for Collection_dates	1
Collection date validation	Validation rule on Collection_date	1
	Correct rule used/works *e.g. Weekday([Collection_date])<>1*	1
	… Validation text as shown in QP or sensible/relevant	1
Weight validation and Charge calculation	**Working** Validation rule on Weight (may be in table or Form) *[Weight]<=5*	1
	Correct results and text for Weight validation *any sensible warning*	1
	Correct results for weight Charges	1
Delivery calculations	Delivery dates +1 for weekdays	1
	Delivery dates +2 for Saturdays	1
		30

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Task 4	Merge data source requested	1
Update MergeDoc_	Date format correct **dd MMMM yyyy** *e.g. 25 February 2021*	1
	Title	1
	Initial	1
	Surname	1
	Address fields and layout	1
	Spacing for all address block	1
	Correct salutation + spacing	1
	Conditional field for ASSOC *IF {MERGEFIELD CCType } ="ASSOC"*	1
	… Correct text "*We regret that we can no longer accept payments made using ASSOC credit cards"*	1
	Valid attempt for Expires condition	1
	… Correct text for Expires *"We have the expiry date of your credit card as"* + *{CCExpires}*-field must be inside the condition	1
Update Letters_ Contents must be the result of a field in the MergeDoc	Dr. J.John, Ms. M.Godfrey, – *ASSOC card text* **only**	1
	Mr. K.Schofield – *ASSOC card text* **only** *only one letter*	1
	Mr. N.Bradshaw *Expiry text* only	1
	Ms.M.Reed *Expiry text only*	1
	Mrs. E.Rees *Expiry text* only	1
	Mr. E.Thomas *Expiry text* only	1
	Expiry date 1/3/2021 *(or 3/1/2021)* *shown for all 4*	1
	Proofing, ffp with candidate details ***only** if all 7 letters **only** are correct*	1
		20

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Task 5	.value added to Customer_ID		1
Booking_ Form_ Weight_	.value added to Collection_Date		1
	.value added to Weight		1
	If statement syntax ***if(……..) {****alert ("…….")****}***	If statement syntax must be valid for these marks and **inside function Review()**	1
	Valid **If syntax, correct** criterion for Weight (*>5)* *and uses alert(….)*		1
	… Correct weight error text "*We do not accept items weighing more than 5 kg"*		1
Booking_ Form_ Date_	Valid **If syntax** for Sunday Date check *e.g. uses .getDay() and alert(…)*		1
	… Correct day error text "*We do not accept bookings on a Sunday"*		1
Booking_ Form_ Fill_	Valid **If syntax** for all fields completed *3 conditions and alert (…)*		1
	… Correct completion error text "*Please complete all **the** information"*		1
	|| – OR used **independent** *or other method that works*		1
Booking_ Form_ Complete_	Completion test Alert works *for any condition*		1
	Weight test Alert works		1
	Day test Alert works		1
	Final **Alert "***The test booking entries are valid" – must be the only alert when complete*		1
			15

Total for paper	110

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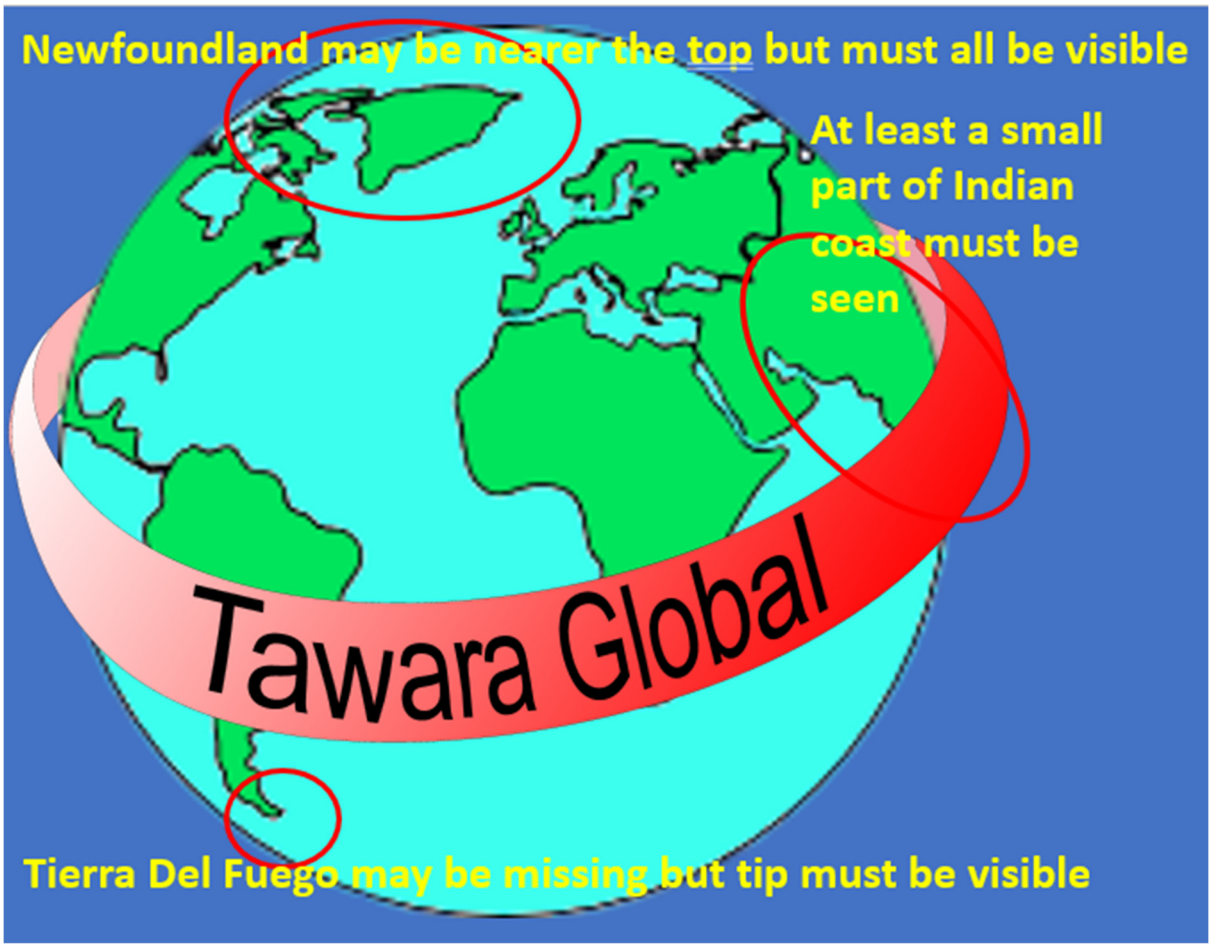
Task 1



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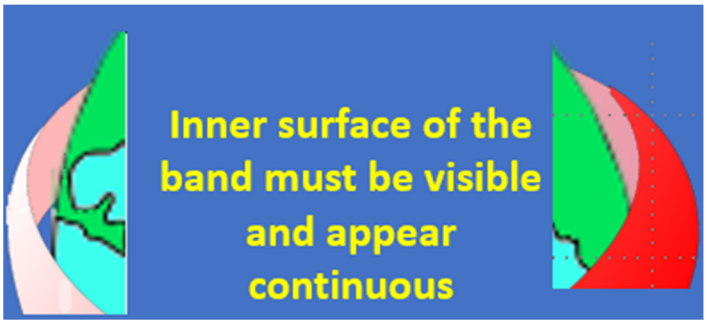

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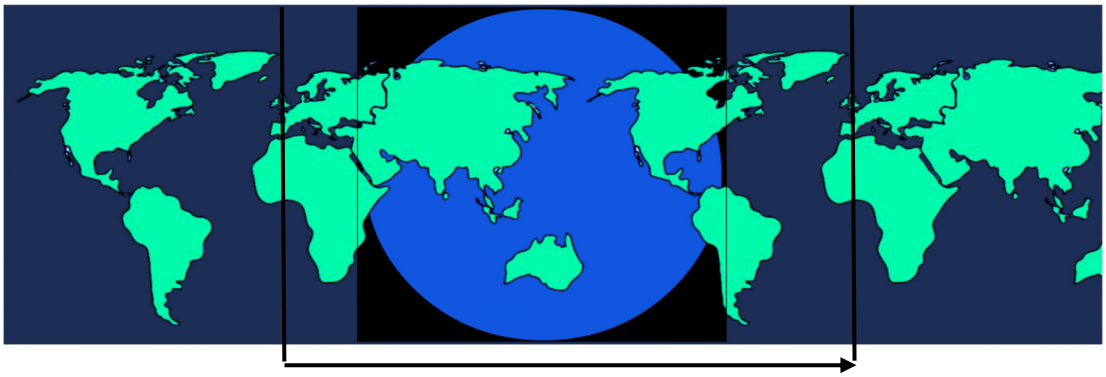
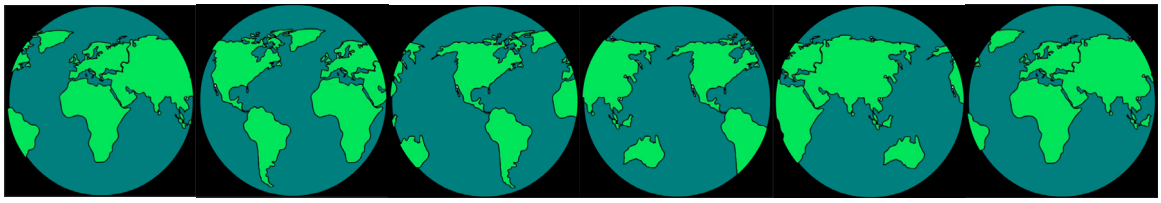
Task 2





Task 3

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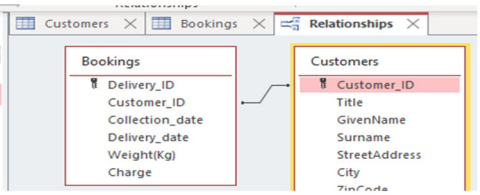
Customers

Field Name	Data Ty
Customer_ID	Number
Title	Short Text
GivenName	Short Text
Surname	Short Text
StreetAddress	Short Text
City	Short Text
ZipCode	Short Text
EmailAddress	Short Text
Username	Short Text
Password	Short Text
TelephoneNumber	Short Text
CCType	Short Text
CCExpires	Date/Time

Field Name	Data Type
Delivery_ID	AutoNumber
Customer_ID	Number
Collection_date	Date/Time
Delivery_date	Calculated
Weight(Kg)	Number
Charge	Calculated



Tawara UK

Collection and Delivery booking form

Delivery_ID 0

Customer_ID 105

Collection_date 17/09/2019

Delivery_date 18/09/2019

Weight(Kg) 5

Charge £4.00

105

Customer_ID	GivenName	Surname
105	Lydia	Abbott
909	Robert	Adams
173	Evie	Ahmed
311	Patrick	Akhtar
14	Sofia	Alexander
558	Jack	Alexander
911	Madison	Alexander
648	Demi	Allan

Collection_date 17/09/2019

Delivery_date

Weight(Kg)

Charge

September 2019

Mo	Tu	We	Th	Fr	Sa	Su
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

Today

Collection_date 14/03/2021

Delivery_date 15/03/2021

Weight(Kg) 5

Charge £4.00

Microsoft Access

There are no collections or deliveries on Sundays

OK

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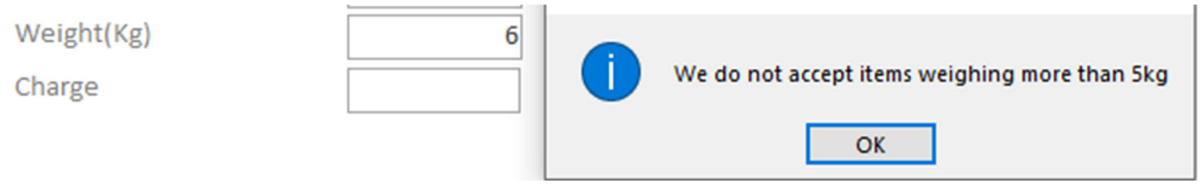

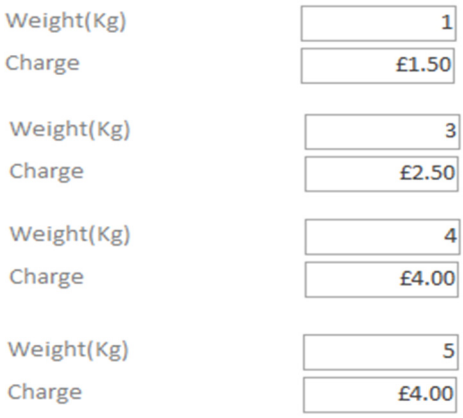

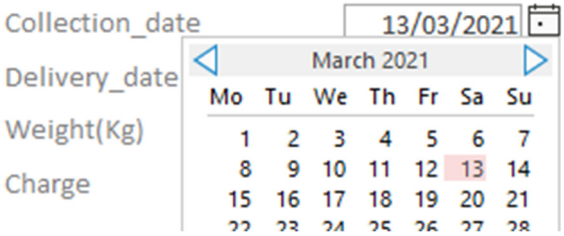

Task 4

Example solution

Our records show that your credit card will be invalid for future bookings.

{ IF { MERGEFIELD CCType } = "ASSOC" " We regret that we can no longer accept payments made using ASSOC credit cards.

" "" }

{ IF { MERGEFIELD CCType } <> "ASSOC" "We have the expiry date of your credit card as " "" }{ IF { MERGEFIELD CCType } <> "ASSOC" "{ MERGEFIELD CCExpires }" "" }

Task 5

Example solution

```
<script>

function Review(){
var error=0
if (Customer_ID.value=="" || Collection_Date.value ==""  || Weight.value =="") {alert("Please complete all the information"); error++ };

 if(new Date(Collection_Date.value).getDay() ==0) {alert("We do not accept bookings on a Sunday"); error++};

 if (Weight.value>5) {alert("We do not accept items weighing more than 5kg"); error++};

  if (error==0 ){alert("The test booking entries are valid")};
}
</script>
```