



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.

This document consists of **14** printed pages.

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.

		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 (<i>Including Mediterranean, Black Sea, Red Sea, Baltic Sea, Persian Gulf</i>)	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 <i>all within outline</i>	1	
	Land areas undistorted – shapes preserved <i>All Newfoundland, tip of South America, left of India</i>	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 <i>not transparent</i>		1
	Text is correct		1
	Text is sans-serif	1	
	Text position is correct – <i>central on globe curving upwards to right</i>	Text must be within a band on a valid globe for these marks	1
	Text position on path in band <i>not too near top or bottom</i>		1
	...Text spacing is even – <i>not individual letters</i>		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

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 <i>not small, not clipped. All Greenland and all South America must be visible</i>		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 <i>Bering straits size ok</i>		1
	Map always invisible left of mask		1
	Map always invisible right of mask		1
	Animation loops <i>more than one copy of the map used</i>		1
	... No (<i>or minimal</i>) jump at Restart position	1	
	... Movement is horizontal only	1	

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 <i>AutoNumber and key</i>		1
	Collection_date field inserted <i>Date/Time Data type</i>		1
	Delivery_date field inserted		1
	Delivery_date a calculated field – Must see <i>use of Weekday() if in form or Query</i>		1
	Weight field inserted		1
	Charge field inserted		1
	Charge a calculated field – <i>Must see use of If([Weight....]) if in Form or Query</i>		1

Task 3	Form created containing only the specified fields	1
Database Form	Title text, sizes and positions correct <i>Tawara UK larger – aligned as shown</i>	1
	Titles – Grey and red sans-serif text on yellow background –	1
	Field sizes as per QP <i>Left and right aligned</i>	1
	Customer_ID dropdown	1
	3 fields in dropdown – <i>Customer_ID, GivenName, Surname</i>	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 <i>e.g. Weekday([Collection_date])<>1</i>	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) <i>[Weight]<=5</i>	1
	Correct results and text for Weight validation <i>any sensible warning</i>	1
	Correct results for weight Charges	1
Delivery calculations	Delivery dates +1 for weekdays	1
	Delivery dates +2 for Saturdays	1
		30

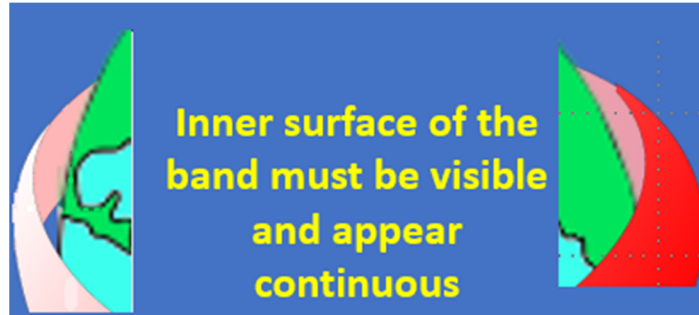
Task 4	Merge data source requested	1
Update MergeDoc_	Date format correct dd MMMM yyyy <i>e.g. 25 February 2021</i>	1
	Title	1
	Initial	1
	Surname	1
	Address fields and layout	1
	Spacing for all address block	1
	Correct salutation + spacing	1
	Conditional field for ASSOC <i>IF {MERGEFIELD CCType } ="ASSOC"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

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

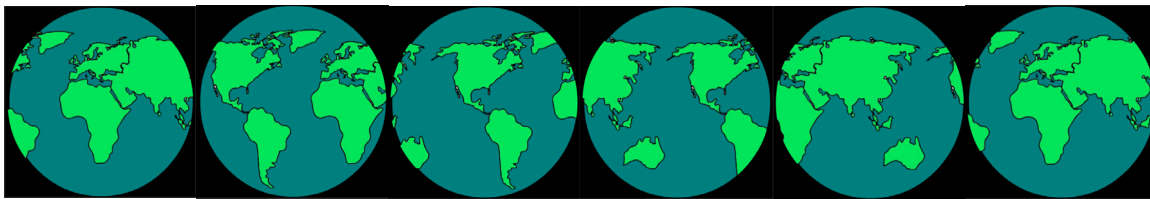
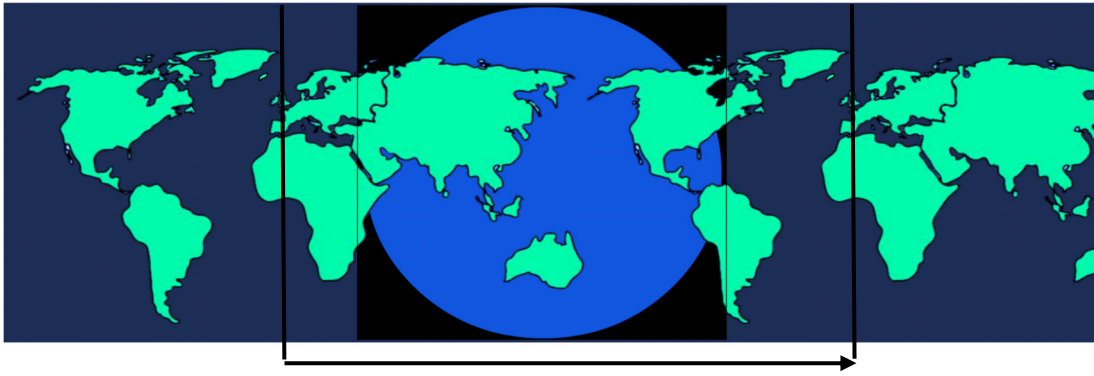
Total for paper 110

Task 1





Task 2



Task 3

Field Name	Data Type	Field Name	Data Type
Customer_ID	Number	Delivery_ID	AutoNumber
Title	Short Text	Customer_ID	Number
GivenName	Short Text	Collection_date	Date/Time
Surname	Short Text	Delivery_date	Calculated
StreetAddress	Short Text	Weight(Kg)	Number
City	Short Text	Charge	Calculated
ZipCode	Short Text		
EmailAddress	Short Text		
Username	Short Text		
Password	Short Text		
TelephoneNumber	Short Text		
CCType	Short Text		
CCExpires	Date/Time		

Table	Field Name
Bookings	Delivery_ID
Bookings	Customer_ID
Bookings	Collection_date
Bookings	Delivery_date
Bookings	Weight(Kg)
Bookings	Charge
Customers	Customer_ID
Customers	Title
Customers	GivenName
Customers	Surname
Customers	StreetAddress
Customers	City
Customers	ZipCode

Tawara UK

Collection and Delivery booking form

Delivery_ID

Customer_ID

Collection_date

Delivery_date

Weight(Kg)

Charge

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

Delivery_date

Weight(Kg)

Charge

Collection_date

Delivery_date

Weight(Kg)

Charge


Microsoft Access

i There are no collections or deliveries on Sundays

OK

Weight(Kg)

Charge

 We do not accept items weighing more than 5kg

Weight(Kg)

Charge

Weight(Kg)

Charge

Weight(Kg)

Charge

Weight(Kg)

Charge

Collection_date

Delivery_date

March 2021

Mo	Tu	We	Th	Fr	Sa	Su
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

Weight(Kg)

Charge

Collection_date

Delivery_date

Collection_date

Delivery_date

Task 4

{ DATE \@ "dd MMMM -yyyy" \}* MERGEFORMAT }

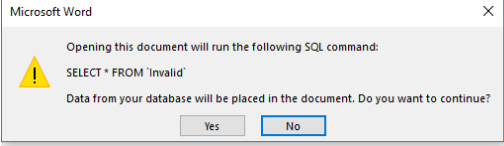
{ MERGEFIELD Title } { MERGEFIELD Initial } { MERGEFIELD Surname }

{ MERGEFIELD StreetAddress }

{ MERGEFIELD City }

{ MERGEFIELD ZipCode }

Dear { MERGEFIELD Title } { MERGEFIELD Surname }


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>
```