

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Diploma in ICT
Advanced Level

ADVANCED SPREADSHEETS

5202/A

Optional Module: Practical Assessment

2005

No Additional Materials are required

**1 hour
and 15 minutes reading time**

READ THESE INSTRUCTIONS FIRST

Candidates are permitted **15 minutes** reading time before attempting the paper.

Make sure that your name, centre number and candidate number are shown on each printout that you are asked to produce.

Carry out **every** instruction in each task.

Tasks are numbered on the left hand side of the page, so that you can see what to do, step by step. On the right hand side of the page for each task, you will find a box which you can tick (✓) when you have completed the task; this checklist will help you to track your progress through the assessment.

Before each printout you should proof-read the document to make sure that you have followed all instructions correctly.

At the end of the assignment put **all** your printouts into the Assessment Record Folder.

This document consists of **3** printed pages.

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International Examinations

[Turn over

You are working in the City of Tawara Beach transport department. You are going to use a spreadsheet application to analyse data concerning the penalty charges that motorists may have to pay.

- 1 Using a suitable software package, load the file **ASSA5PEN.CSV** 1.1.1
- 2 Insert two new rows at the top of the spreadsheet. 2.1.1
- 3 Enter the values **50%**, **100%** and **150%** in the first three cells of the top row. Name these cells **ONE**, **TWO** and **THREE**. They are the extra penalties charged for late payment of a congestion charge. 2.2.1
- 4 In the fourth cell on the top row, enter the date **31 Jan 2005** and name the cell **CALCDATE**
- 5 In row 2, enter the following column headings, which should be in bold type and left-aligned: 3.1.1
3.5.1

Registration	DatePaid	EngineSize	Basic	MonthsLate	Penalty	Charge
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- 6 In the column headed *Basic*, enter a formula which looks up the basic penalty charge from the data in the file **ASSA5CHG.CSV** where *EngineSize = Size*. 2.5.3
- 7 Replicate this formula for each item. 2.4.3
- 8 In the *MonthsLate* column, enter a formula which 2.4.1
- Subtracts the date shown in the *CALCDATE* cell from the date shown in the *DatePaid* column
 - Divides this result by 30
 - Returns the integer part of this value
- You may add extra column(s) to help.
- 9 Replicate this formula for each item. 2.4.3
- 10 In the *Penalty* column, enter a formula so that: 2.5.3
2.4.2
- If *MonthsLate* is 1, multiply *ONE* by *Basic*
 - If *MonthsLate* is 2, multiply *TWO* by *Basic*
 - If *MonthsLate* is 3, multiply *THREE* by *Basic*
- 11 Replicate this formula for each item. 2.4.3
- 12 In the *Charge* column, enter a formula which will add the value in *Penalty* to *Basic* 2.4.1
- 13 Replicate this formula for each item. 2.4.3
- 14 Format the *Basic*, *Penalty* and *Charge* columns so that numbers are shown to 2 decimal places. 3.3.1
- 15 Select only those entries where *EngineSize* is greater than **2000** and *MonthsLate* is equal to **3** 5.2.1

- 16 Sort the table in ascending order of *DatePaid* and then in descending order of *Charge*. 5.1.1 ✓

The first 2 rows are shown below.

Registration	DatePaid	EngineSize	Basic	MonthsLate	Penalty	Charge
O170VI	05-May-05	2200	7.50	3	11.25	18.75
L379LP	06-May-05	3200	10.00	3	15.00	25.00

- 17 Create a header which says **Large Engine Cars – Three Months Overdue** and a footer which shows your name and today's date. 4.2.2

- 18 Print all details for these entries adjusting the page layout if necessary so that the whole table fits on a single page. Make sure that the contents of all cells are visible and that your name is printed. 6.1.1

- 19 Change the wording of the header to **Formulae used** 4.2.2

- 20 Show only the columns in which you have used formulae. 3.4.1

- 21 Print this extract in landscape format, showing all the formulae instead of figures. Show row and column headings. 4.1.1
6.1.1

Make sure that the contents of all cells are visible and that your name is printed. 4.2.3
4.2.1

- 22 In a new worksheet, use all the data to create a pivot table (cross-tab) which: 2.3.1
2.5.2

- Has *MonthsLate* as the row fields
- Has *EngineSize* as the column fields
- Has *Charge* as the data items

- 23 Change the field settings for *Charge* to show the count of *Charge* 2.5.2
4.1.1

Select only the *EngineSize* less than 1900

The first 2 rows are shown below. Note that the numbers shown are examples only; some are not correct and some cells may be empty.

MonthsLate	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800
1	9	9	9	9	9	9	9	9	9	9	9

- 24 Create a header which says **Count of Debts by Engine Size** and a footer showing your name and today's date. 4.2.2

- 25 Print this sheet. Make sure that the contents of all cells are visible and that your name is printed. 6.1.1

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[Turn over

You are working in the transport department of the City of Tawara Beach. You are going to use a spreadsheet application to demonstrate some of the ways in which bus usage can be analysed.

- 1 Using a suitable software package, load the file **ASSB5BUS.CSV** 1.1.1
- 2 Insert two new rows at the top of the spreadsheet. 2.1.1
- 3 Enter the values **1.00** and **0.75** in the first two cells of the top row. Name these cells **STANDARD**, and **SHORT**. They are the fares charged for standard journeys and short distance journeys. 2.2.1
- 4 In row 2, enter the following column headings, which should be in bold type and left-aligned: 3.1.1
3.5.1

Date	Route	StartPoint	EndPoint	StartTime	FinishTime	JourneyTime	Fare
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- 5 Insert a column headed **Area** between *Route* and *StartPoint* 2.1.1
- 6 In the *JourneyTime* column, enter a formula which works out the time taken for the journey. The formula will need to subtract the time in *StartTime* from the time in *FinishTime* 2.4.1
- Format the cell to show the result in hours and minutes.
- 7 Replicate this formula for each journey. 2.4.3
- 8 In the column headed *Area*, enter a formula which looks up the *Suburb* from the data in the file **ASSB5RTS.CSV** where *Route*= *RouteCode* 2.5.3
- 9 Replicate this formula for each journey. 2.4.3
- 10 The codes used for the start and stop point can be used to calculate the fare. Enter a formula in the column headed *Fare* which 2.3.1
2.4.1
2.5.1
2.5.3
- extracts the second digit from *StartPoint*
 - extracts the second digit from *EndPoint*
 - enters the value **SHORT** if these two digits are the same otherwise enters the value **STANDARD**
- 11 Replicate this formula for each journey. 2.4.3
- 12 Format the *Fare* column so that numbers are shown to 2 decimal places. 3.3.1
- 13 Select only those journeys where the *Route* is **47** and *Fare* = **0.75** 5.2.1
- 14 Sort the table in ascending order of *StartPoint* and then in ascending order of *StartTime*. 5.1.1

The first 2 rows are shown below.

Date	Route	Area	StartPoint	EndPoint	StartTime	FinishTime	JourneyTime	Fare
07-Feb-05	47	Riverdale	280	287	05:52	06:21	00:29	0.75
25-Jan-05	47	Riverdale	280	285	16:59	17:25	00:26	0.75

14 Create a header which says **Short Journeys – Route 47** and a footer which shows your name and today's date. 4.2.2

15 Print all the details of these journeys, adjusting the page layout if necessary so that the whole table fits on a single page. 6.1.1

Make sure that the contents of all cells are visible and that your name is printed.

16 Change the header to **Formulae used** 4.2.2

17 Show only the columns in which you have used formulae. 3.4.1

18 Print this extract in landscape format, showing all the formulae instead of figures. Show row and column headings. 4.2.1
6.1.1
4.2.3

Make sure that the contents of all cells are visible and that your name is printed.

19 In a new worksheet, use all the data to create a pivot table (cross tab) which: 2.3.1
2.5.2

- Has *Date* as the row fields
- Has *Route* as the column fields
- Has *JourneyTime* as the data items

20 Change the field settings for *JourneyTime* to show the average *JourneyTime*. 2.5.2
4.1.1

Select only the journeys in February.

Format *JourneyTime* to show hours and minutes.

The first 5 rows are shown below. Note that the numbers shown are examples only; some are not correct and some cells may be empty.

Date	32	45	47	95	207	260	266
1-Feb-05			00:59	00:59		00:59	
2-Feb-05				00:59			
3-Feb-05				00:59			
4-Feb-05		00:59				00:59	

21 Create a header which says **Average Journey Times** and a footer showing your name and today's date. 4.2.2

22 Print this sheet. 6.1.1

Make sure that the contents of all cells are visible and that your name is printed.