**Final assessment**

**TOTAL POINTS 20**

1.

Question 1

You have been asked by a school to help automate their accounts processing. Every few days they receive a text file from the bank detailing payments received (**BPAY** sheet). This information must be matched to the system data that has been downloaded into Excel (**SYS DATA** sheet) and a report produced that will be uploaded to the school system.

Go to the **Upload** sheet (this is where all calculations are to be done). You will see that the **BpayReference** has already been populated. The next column needs to contain the **TransactionReference**, which is made up of the **MERCHANT**, followed by the **SETTLEMENT DATE**, followed by the **MERCHANT REFERENCE** from the **BPAY Bank File** sheet, with no space between them, e.g. ANB20201002120026834. Create a calculation in **B2** that will join these values together and then copy the formula down.

What is the value of Check Digit 1 in cell **T13**?

[C1 Final Assessment.xlsx](https://d3c33hcgiwev3.cloudfront.net/WYbeALX1T7SG3gC19e-0vQ_4c3d94f00a9344b7ab758a39e5bcafa1_C1-Final-Assessment.xlsx?Expires=1629763200&Signature=WzVKjveBjyLWSFfwEX6wZ6S8ORHjx7t-zI0n9W71K1IK67o3m6Xeumt1AGaOg-7AAj6spjyxacaXKLgLULvf~nURfzduCsf3kDHWzSwoJMl0M4jS5Tx20w8qCrS7ys8GI1Hi1oa9Ij-uolhYLkAYmmu4XItUr9AtCpfukWF7vwk_&Key-Pair-Id=APKAJLTNE6QMUY6HBC5A)



6314

Question 2

Using Excel 2019, the problem in question 1 could have been solved using which of the following: (Multiple answers may apply.)

1 point



CONCATENATE



CONCAT



TEXTJOIN

3.

Question 3

The Customer Reference number is how we identify customers in our system. The BPAY reference appears to consist of the 9 digit School identifier, followed by the 5 digit Customer Reference. In column **C** create a calculation to extract the last 5 characters from the BPAY Reference and convert it to a numeric value. (You will notice that we don’t get 5 numbers – we will fix that in the next question). What is the value of Check Digit 2 in **T14**?

1 point



266

4.

Question 4

We didn’t quite get the results we wanted in the last question and on closer inspection we discover that there is a space at the end of the BPAY reference. Modify the calculation in column **A** to remove the extra spaces. The Customer References should now be corrected. What is the updated value for Check Digit 2 in **T14**?

1 point



2931

5.

Question 5

Which of the following functions (on their own) could you have used to achieve the outcome in Question 4?

1 point



**SUBSTITUTE**, **TRIM**, or **LEFT**

6.

Question 6

In the BPAY file dates come through in the format YYYYMMDD, which makes them difficult to perform calculations with. In column **D** create a calculation to extract the two digit month from the corresponding **paiddate** in the BPAY sheet. (Do not convert to a number). What is the value of Check Digit 3 in **T15**?



635

7.

Question 7

In column **E** use a calculation to convert the **paid date** in the BPAY sheet to a valid Excel date. Formats will differ for different regions, but once converted you should be able to switch between number format and short date format. (Hint: you will need to separate and rejoin the separate parts of the date using an appropriate date function. What is the value of Check Digit 4 in **T16**?



4410

8.

Question 8

In column **F** we need to get the payment amount from the **BPAY** sheet, but you will notice it is being treated as text because of the "AU" at the front. Apply functions to remove the unwanted characters and convert to a number. Which of the following combinations of calculations could you use?

1 point



**SUBSTITUTE** and **VALUE**

9.

Question 9

The calculation in Column **G** has been done, it calculates the outstanding balance for each payee by adding up the fee, arrears, and other charges from the **SYS DATA** sheet. Quite a lot of them are showing 0 though. The reason is the calculation is using named ranges that do not include all the data on the **SYSDATA** sheet. Change the Named Ranges **Amount** and **Cust\_Ref** to include all the data in those columns. The balances should now be correct. What is the total balance in **T7**?

1 point



$386,697

10.

Question 10

You would also like to see a breakdown of total outstanding fees and arrears. Start by naming the other columns in the **SYS DATA** sheet. Back in the **Upload** sheet create a calculation in **T10** to calculate the total **Amount** (in **SYS DATA**) where the type is **fee\_amt**. Copy the formula down to get the total **arrears\_amt**. What is the Total Arrears amount as shown in **T11**?



$2,263,026

11.

Question 11

You realise you could make your life a little easier and your solution more robust by working in a table. Convert the data in **A1:Q69** to a table. Turn on the Total row and add a SUM total in the **Balance** column. Filter the table to only show payments made in October. What is the Total Balance?

1 point



$119,451.63

12.

Question 12

Clear the filter you added in Question 11. In column **H** use the **Customer Reference** to look up the invoice date for that customer from the data in the **SYS DATA** sheet. (All transactions for one customer will have the same date.) What is the value of Check Digit 5 in **T17**?

1 point



22042

13.

Question 13

In column **I**, use the data in columns **E** and **H** to calculate how many days there were between when the invoice was issued and when it was paid. How many days did it take Customer **82555** to pay?

1 point



41

14.

Question 14

The due date for invoices is 21 working days after invoices are issued. This has already been calculated in column **J**. In column **K** we would like to identify those people who paid early. Create a calculation in column **K** that returns a **Y** if they paid before the due date and otherwise leaves the cell blank. What is the value of Check Digit 6 in **T18**?



2492

15.

Question 15

In column **L** calculate how many working days (excluding Saturdays and Sundays, but not holidays) those who paid early, paid by. If they did not pay early the calculation should just return 0. In the total row add a sum for this column. What is the total shown in the total row?



439

16.

Question 16

Customers who pay 5 working days before the due date are eligible for a discount. In column **M** calculate the date 5 working days before the due date (excludes Saturdays and Sundays). In the total row add an average to Discount Due Date. What was the average (formatted as a date)?



22 September 2020

17.

Question 17

Discounts are calculated as a percentage of the balance owed, rates vary depending on how large the balance is. The lookup table in **S2:T5** details what percentage is applied, so for example balances from 300 to 11999.99 get a 5% discount. In column **N** calculate how much discount will be awarded for each customer if they are eligible. Include an Average calculation in the Total row for Discount Offered. What was the average Discount Offered?

1 point



$666.19

18.

Question 18

To be eligible for discount customers must have paid before the Discount Due Date and must have paid at least the full balance owing less the discount amount, i.e. if the Balance was $300 then the discount would be $15, so if they paid early and paid $285 or more they get the discount. In Column **O** enter a calculation that will return the Discount Offered amount for customers who are eligible and 0 for those who are not. Add an Average calculation to the Total row. What is the average discount being awarded?



$170.50

19.

Question 19

Where there is more than one student enrolled, customers are given a 5% sibling discount. This is applied to the fees up front but as part of the report you are required to calculate what this amount was. The calculation has already been done in column **P**, but it has been calculated for everyone. Change the calculation so it looks up the enrolments for the customer in the **SYS DATA** sheet and only calculates the Sibling Discount if the number of enrolments is two or more. (If no siblings return 0.) Include an Average for Sibling Discount in the Total row. What is the average sibling discount?

1 point



$273.03

20.

Question 20

A valid solution for Question 19 could be achieved using which of the following combinations of functions? (Multiple answers may be correct.)

1 point



**IF** and **XLOOKUP**



**INDEX**, **MATCH** and **IF**