**Question 1**

You are required to work on a spreadsheet for an Event Planning company who is hosting a Charity Fundraiser. Follow the instructions carefully and answer the questions as you go. Note that some data is stored in tables and there are several named ranges already in the workbook. Feel free to apply your own named ranges where appropriate. Also, the **Error checking rules** should be set to the default.

Go to the **Client Database** Worksheet. This contains a list of all regular clients. We want to avoid introducing data entry errors so we will look at adding data validation.

Which data validation option would be best for **First Name**?

* Any Value
* Custom
* Text Length
* List

**Question 2**

Which data validation option would be best for **Client ID**?

* List
* Whole Number
* Decimal
* Text Length

**Question 3**

Using the lists in the **Lookup Lists** tab, add validation for the **Organisation** and **Country Code** so that only values that appear in the lists can be entered. Next **Circle Invalid Data**. Just looking at data in rows 7 to 27, how many red circles appear?

Correct the data by selecting the correct option from the list. For the **Country Code**, choose the closest one alphabetically.

**Question 4**

Add data validation to prevent users entering a **Start Date** in the future. Which of the following is the correct formula?

* =$E$7<=TODAY()
* =E7<=TODAY()
* =$E$7<=DATE()
* =<DATE()

**Question 5**

We want to identify all clients who started from 2017-01-01 onwards. In **I7** enter a formula that will put the text "New" if the start date is the same or more recent than the date in **N7** and otherwise leave the cell blank. How many new joiners are shown in **O7**?

**Question 6**

We have decided to send a gift to clients who have shown long-term loyalty or attended a lot of events. Create a calculation in **J7** that will put "Yes" in the column if the start year was before 2013 or if the events attended is 15 or over, otherwise leave blank. How many gifts are we going to need to send (see **N16**)?

Hint: use the **YEAR** function i.e. **YEAR(E7)**

**Question 7**

We award a status based on how many events clients have attended. If they have attended fewer than 10 events they are given Bronze, 10-19 they get Silver, 20-29 is Gold and anything from 30 upwards is Platinum. Enter a formula in **K7** to lookup the Client's status using the lookup array in **M10:N13**. How many Gold members do we have (value in **O12**)?

**Question 8**

We need to contact all the new members who live in Great Britain (GB). Add conditional formatting to make the whole row of the table yellow (or any colour of your choosing) where the **Country** is GB and the **New Status** is New (Hint: use a function that evaluates multiple criteria). In the **Client ID** column sort by colour to arrange the members we need to contact at the top of the list. What is the value of Check Digit 1 in **N15**?

**Question 9**

You have now completed the required changes to the Client Database, click onto the Attendees worksheet, and follow the instructions to complete the calculations required.

A list of Client IDs for those clients attending has been entered in the table Attendees. To make this data easier to understand and work with, use an appropriate lookup function to lookup the First Name for each of the Clients attending. You should get one NA error. What **Client ID** caused the error? It turns out this client has unsubscribed and will not be attending, remove this record (be careful not to delete the seating plan data on the right).

**Question 10**

Use an appropriate lookup function to lookup the Last Name for each of the Clients attending. Sort the data by Last Name (A-Z). Which Client ID is now first (in **A7**)?

**Question 11**

Use appropriate lookup functions to lookup the Country and Status for each of the Clients attending. How many Bronze members are attending (shown in **J10**)?

**Question 12**

The seating plan in **I10:M64** has allocated seating areas by Country and Status. In the **Seating Area** column, use an appropriate lookup function to look up the correct seating area from the seating plan using the client's **Status** and **Country**. How many people are currently being seated in area **F** (shown in **M8**)?

**Question 13**

Well done. Now click into the **Cost Overview** sheet. There are a few errors that we will need to address and then we will look at different cost models.

You will notice quite a few errors. Start by clicking into **D9**. This is a very simple formula, so it's probably not causing the error, it's just trying to work with a cell that has an error in it. Use the Trace Error tool to find the cell that is causing the error. Each red arrowhead indicates a cell affected by the original error, how many are there?

**Question 14**

Which cell did the error originate in?

**Question 15**

Correct the error. What is the Total Cost (**D9**) now? Enter whole numbers only.

**Question 16**

That has fixed most of the problems, but there is still a green triangle showing in cell **D17**, which suggests we may have another error. Click on **D17** and identify what the problem is, if necessary correct it. What is the Total Cost (**D9**) now? Enter whole numbers only.

**Question 17**

You suspect that changing the value in **D6** will impact a lot of the calculations, but you want to find out how many. Click in **D6** and Trace Dependents (just once). How many direct dependents does it have? (Count the blue arrowheads)

**Question 18**

Clear the arrows, and now find out which cell is the direct precedent of **D7** using Trace Precedents. What is the cell reference (do not include sheet name)? Remove arrows when done.

**Question 19**

We are still quite far off our target of 200 guests and a bit worried that we might not achieve it. Change the value in **D6** to 1 and then use Goal Seek to find out the minimum number of guests we need to not make a loss, i.e. get $0 profit. What is the minimum number of guests? Enter a whole number only (no decimal places).

**Question 20**

Change the value in **D6** to 91 to see what profit we are currently making. We would like to see how our profit will be affected by changing our catering company. Use the Scenario Manager to create a scenario called **Food2U** using the cell **D23** with its current value. Add two additional scenarios, one called **Munchies** with the value **Munchies** in **D23** and another called **Janelle's** with the value **Janelle's**. Show the scenario for **Munchies**. What is the Profit in **D12**? Enter the number to 2 decimal places.

**Question 21**

Create a Summary of all 3 Scenarios. Which caterer yields the highest profit?

* Janelle's
* Food2U
* Munchies

**Question 22**

With 91 guests coming and Munchies as our caterer, our cost per guest is higher than the ticket price. Use the Solver tool to minimise the Cost/Guest by adjusting Guests (**D6**), Site Staff (**B17**) and Speakers (**B31**). Add constraints so that Site Staff cannot be less than 2, Speakers cannot be less than 1 and Guests cannot be more than 400. Save the scenario as Min Guest Cost and keep the solution. What is the new Cost/Guest? Enter the number to 2 decimal places.

**Question 23**

We want to protect all the calculations in this worksheet, but we need users to be able to still edit cells **D6** and **D23**. Before applying protection we should:

* Unhide these cells
* Lock these cells
* Hide these cells
* Unlock these cells

**Question 24**

Having made provision for **D6** and **D23**, how would we then protect the rest of the worksheet?

* File > Info > Protect Workbook > Protect Workbook Structure
* Review > Protect Sheet
* Review > Protect Workbook
* File > Info > Protect Workbook > Encrypt with Password

**Question 25**

To make it easy for their users to switch between caterers you decide to create 3 macros to show the 3 different scenarios. These macros need to be relative references.

* True
* False

**Question 26**

Record a macro called **ShowFood2U** (no shortcut key and store in workbook) that shows the scenario **Food2U**. (Don't perform any other actions while recording.) Open the Macro in the VBA Editor. Which of the following is the line of code to show the Scenario?

* ActiveSheet.Scenarios("Food2U").Show
* Sheet.Scenario("Food2U").Show
* Sheet.Show.Scenarios("Food2U")
* ActiveSheet.Scenario.Show("Food2U")

**Question 27**

Copy the whole macro (from **Sub** to **End Sub**) and Paste it underneath the **End Sub**. Change the name to **ShowJanelles()** and replace the text "Food2U" with "Janelle's". Go back to your worksheet and click the Macros button. You should see two macros there. Run the one called **ShowJanelles**. What is the total catering cost now (**D28**)? Just enter a whole number (no $ or decimal places).

Repeat this step to create a macro to show the Munchies scenario.

**Question 28**

You want to be able to run the macros using the buttons provided (to the right of the catering totals). To do so, after you unprotect the worksheet, you will need to:

* Right Click the Button > Assign Macro
* Click Developer Tab > Macros > Options > Assign Macro
* Click Developer Tab > Insert > Button (Form Control)
* Click File > Options > Macro Settings > Run Macro

**Question 29**

To delete a macro we can: (select 2 options)

* Open the VBA Editor and delete the code
* Right Click the Button > Delete
* Developer Tab > Macros > Delete
* Develop Tab > Macro Settings > Disable All Macros

**Question 30**

To preserve the macros in this workbook I can save as what type of file? (select 2 options)

* Excel Workbook (.xlsx)
* Excel Template (.xltx)
* Binary Workbook (.xlsb)
* Macro-Enabled Workbook (.xlsm)