Time 3 hours

Paper reference	**WIT14/01**

Information Technology
International Advanced Level
UNIT 4

You must have:
The files Party.accdb, Party extract.txt, Candidate evidence template.docx

Instructions

- Answer **all** questions using the template provided.
- Paste your screen prints into the appropriate places in the template.
- Type your responses to Question 1(e) and Question 5 in the appropriate places in the template.

Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question*.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

Instructions

A template for your evidence is provided in your examination area.

Open the template and type in your centre name, centre number, candidate name and candidate number in the boxes provided.

Save the template using a filename in this format.

Centre number_candidate number_surname_first letter of first name.

For example, 12345_9212_Smith_J

The screen prints you produce should be copied into the appropriate places in the template.

After you add a screen print to the template, check that all the text can be read and enlarge the image if necessary.

Remember to save the template regularly.

Responses to Question 1(e) and Question 5 must be typed in the appropriate places in the template.

Scenario

Sandeep owns a company that arranges entertainment for children's parties.

A party manager is responsible for each party.

A party can include several party items.

For example, these could be:

- a balloon for the birthday child

- bubbles

- an interactive disco.

There is a cost for each party item.

Sandeep keeps a list of party managers in a single table within the database 'Party'.

Sandeep has provided the party extract text file, which contains some of his records of party bookings.

Sandeep is finding it increasingly difficult to keep track of:

- the party dates

- the party manager who is responsible for a party

- the items needed for a party.

He wants a solution that will allow him to manage the system more effectively.

The screen prints you produce should be copied into the appropriate places in the template. Remember to save the template regularly.

Responses to Question 1(e) and Question 5 must be typed in the appropriate places in the template.

The party database and the party extract text file are provided in your examination area.

Study these files carefully.

1   (a) The party manager table in the party database needs to be improved.

   (i)   A party manager record must **only** be saved if an email address is present.

         Set up a presence check so that the email address must be present.

         Screenprint the table in **Design** view, making sure that the presence check can be clearly seen.

         Paste the screen print into the appropriate place in the template.

         Re-save your template.

                                                                              (2)

   (ii) Set up a combo box on the AverageRatingReview field so that **only** 1, 2, 3, 4 or 5 is accepted.

         Screenprint the table in **Design** view.

         Make sure that the field name and the combo box items can be clearly seen.

         Paste the screen print into the appropriate place in the template.

         Re-save your template.

                                                                              (2)

(b) Sandeep needs a form to enter data about a new party manager.

The form must:

- open ready for data entry

- generate the PartyManagerID, which is one number higher than the number currently used

- only allow the input of the new party manager's:

  – last name

  – email address

- automatically set:

  – DateAdded to today's date

  – AverageReviewRating to 5

- provide a button that:

  – saves the record in the table

  – displays a message to say that the record has been saved.

Create a user-friendly data entry form for the party manager table that will allow Sandeep to add new records to the database.

Screenprint your form in **Form** view.

Paste the screen print into the appropriate place in the template.

Produce screen prints in **Design** view to show any macros, code, queries and/or properties you have used. Ensure that all fields and details can be clearly seen.

Paste the screen prints into the appropriate places in the template.

Re-save your template.

(9)

(c) The party extract text file is in your examination area.

It contains some records from a spreadsheet that Sandeep uses to keep track of party bookings.

He wants to extend the party database to add this functionality.

Develop the party database to do this.

You must create an efficient data structure that minimises data duplication, uses correct data types and primary keys, and enforces referential integrity.

Produce a screen print that clearly shows the relationships including table names, field names and primary keys.

Paste the screen print into the appropriate place in the template.

Produce screen prints showing the field names and data types in the tables **you** have created.

Paste the screen prints into the appropriate places in the template.

Re-save your template.

(11)

(d) Import the data from the party extract text file into the party database.

Produce screen prints of **your** tables showing at least five records and the full record count. (If the fields are too wide to fit on one page, truncated data is allowed.)

Paste the screen prints into the appropriate places in the template.

Re-save your template.

(3)

(e) Assess the efficiency of your database structure.

You should consider:

- data types
- data duplication
- primary and foreign keys
- referential integrity.

Type your response in the appropriate place in the template.

Do not include any screen prints.

Re-save your template.

(9)

(Total for Question 1 = 36 marks)

2 (a) Sandeep wants to know details of party managers.

Create a query that:

- finds party managers who:
  - were added during 2017 and 2018
  - have an average review rating of three or more

- displays, in order of last name from A to Z:
  - last name
  - date added
  - average review rating.

Screenprint your query in **Design** view, making sure that all required tables, fields and criteria can be clearly seen.

Paste the screen print into the appropriate place in the template.

Screenprint your query in **Datasheet** view, making sure that the contents of all of the fields can be clearly seen.

Paste the screen print into the appropriate place in the template.

Re-save your template.

(5)

(b) (i) Sandeep would like to know the parties that party managers Kernocke, Normanvell, and Halton are responsible for.

He wants to use the standard report in **Figure 1**. This will use information from the database.

Parties and Managers	
Manager ID	#
Last Name	Example last name
Email	Example email

Party Date	Contact Telephone
##/##/####	##########
##/##/####	##########
##/##/####	##########
Total Number of Parties	**3**

Manager ID	#
Last Name	Another example last name
Email	Another example email

Party Date	Contact Telephone
##/##/####	##########
##/##/####	##########
Total Number of Parties	**2**

Figure 1

Create a query that will extract and use appropriate data from the database.

Screenprint your query in **Design** view, making sure that all required tables, fields and criteria can be clearly seen.

Paste the screen print into the appropriate place in the template.

Re-save your template.

(2)

(ii) Sandeep wants to print the standard report.

He will use the report format shown in **Figure 1**.

Use your query from Question 2(b)(i) to extract the data for the report.

Create the report.

Screenprint your report in **Design** view.

Paste the screen print into the appropriate place in the template.

Screenprint your report in **Print Preview** view.

Paste the screen print into the appropriate place in the template.

Re-save your template.

(8)

(Total for Question 2 = 15 marks)

3 (a) Sandeep needs to calculate the total cost for each item that has been requested at five or more parties.

Create a query that will do this.

The query should display the name of each item and the total cost for each item.

Screenprint your query in **Design** view, making sure that all required tables, fields and criteria can be clearly seen.

Paste the screen print into the appropriate place in the template.

Re-save your template.

(5)

(b) Sandeep would like the information from 3(a) in chart format to make it easier to understand.

The chart needs to show the name of each item and the total cost for each item.

Use the query you created in Question 3(a) to extract the data for the chart.

Create a report that displays this information as a chart.

Display your report in **Design** view.

Ensure the chart is visible on your screen.

Screenprint the entire window.

Paste the screen print of the entire window into the appropriate place in the template.

Screenprint your report in **Print Preview** view.

Paste the screen print into the appropriate place in the template.
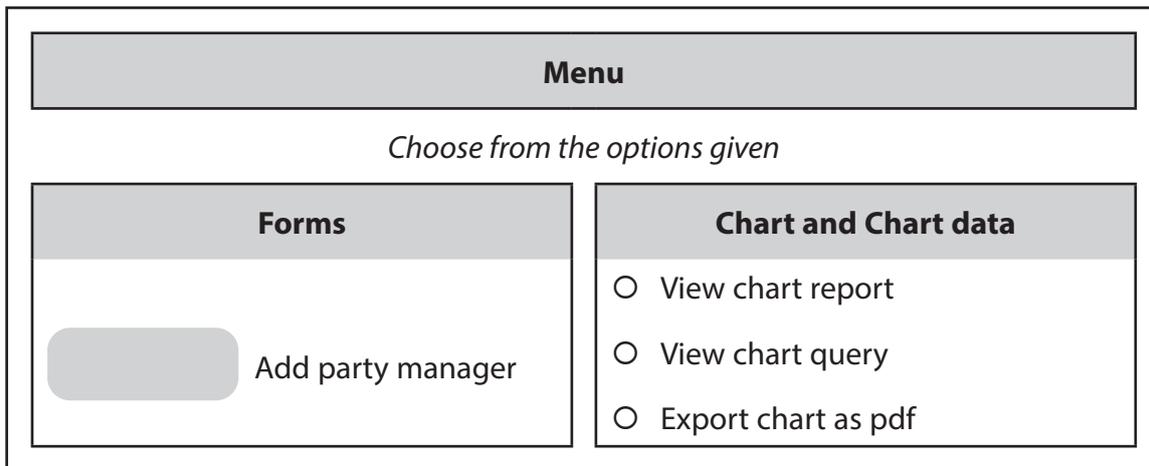
Re-save your template.

(7)

(Total for Question 3 = 12 marks)

4 Sandeep needs a dashboard for the database.

He wants to use the menu design shown in **Figure 2**.

Menu
Choose from the options given

Forms	Chart and Chart data
Add party manager	○ View chart report ○ View chart query ○ Export chart as pdf

Figure 2

An automated method is needed for the button and each radio button.

- If the **Add party manager** button is selected, the data input form you created in Question 1(b) will open.

- If the **View chart report** radio button is selected, the report you created in Question 3(b) will open in **Print Preview**.

- If the **View chart query** radio button is selected, the query you created in Question 3(a) will run.

- If the **Export chart as pdf** radio button is selected, the report you created in Question 3(b) will be automatically exported as a pdf file.

Create the dashboard to meet these requirements.

Screenprint the dashboard in **Form** view.

Paste the screen print into the appropriate place in the template.

Produce screen prints in **Design** view to show any macros or code you have used. Ensure that all details can be clearly seen.

Paste the screen prints into the appropriate places in the template.

Re-save your template.

(Total for Question 4 = 8 marks)

5   **Figure 3** shows the form that is completed when a customer books a party.

Sandeep completes it by hand.

Customer ID	1
Contact telephone	07700900374
Last name	Asghar
First name	Akilah
Email address	Asgaki1980@pmail.com
Party date	20/04/2022
Start time	3 pm
Party manager	Normanvell

Notes
Want the company entertainer to be able to sing so the children can dance on the dance floor. Want the filmmaker there before the party starts to film the children arriving.

Item ID	Item	Cost
1	Balloon for Birthday Child	£5.00
4	Snow	£100.00
5	Candy Floss Machine	£75.00
6	Company Entertainer	£75.00
17	Filmmaker	£150.00
18	White LED Dance Floor	£100.00
	Total cost	£505.00
	10% deposit	£50.50
	Balance to pay	£454.50

Figure 3

Analyse why the present database structure may not allow Sandeep to record/generate the party booking data shown in **Figure 3**.

Recommend how the database structure could be modified to allow him to record/generate the party booking data shown.

Type your response in the appropriate place in the template.

Re-save your template.

(Total for Question 5 = 9 marks)

TOTAL FOR PAPER = 80 MARKS

BLANK PAGE

BLANK PAGE

BLANK PAGE