QUESTION 3: DELPHI PROGRAMMING

The school is planning an event to raise money for new equipment and also to donate some of the money to a less privileged school. Tickets are sold by the parents and there will also be lucky draw prizes.

The names of the children are stored as a constant in the array named **arrnames**. There are 23 children in the class. Code has been completed to display the names in the StringGrid component.

NOTE: The output for the lucky draw winners will differ from the example, as it is randomly generated.

3.1   **GET INFO:**
         Write code to retrieve the ticket numbers that have been sold by the children. The information is stored in a text file named **tickets.txt**. Store all the information in a two-dimensional array named **ar2tickets**.   (9)
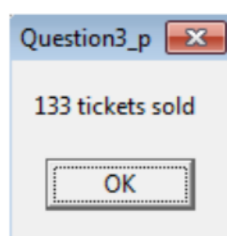
3.2   **DISPLAY:**
         Display the ticket numbers each child sold, in the StringGrid.

Jack	1	5	65	3	87	56	45	127	0	0
Sarah	43	2	27	60	61	126	0	0	0	0
Ben	4	26	29	85	102	164	0	0	0	0
Lily	23	28	58	59	121	0	0	0	0	0
Jocelyn	7	22	57	83	84	161	0	0	0	0
Adrian	25	30	62	100	128	0	0	0	0	0
Anathi	6	21	82	99	120	171	0	0	0	0
Anita	31	63	64	118	158	203	0	0	0	0
Ashwin	20	32	81	97	132	0	0	0	0	0
Peter	10	55	86	103	155	0	0	0	0	0
Chloe	33	67	79	80	144	0	0	0	0	0
Jeff	19	54	70	110	136	0	0	0	0	0
Nathi	8	34	78	35	139	0	0	0	0	0
Wandile	9	51	52	53	116	174	175	176	184	0
Kerry	36	71	72	95	140	0	0	0	0	0
Sethu	17	73	87	106	154	0	0	0	0	0

(3)

3.3   **TICKETS SOLD?**
         Write code to calculate how many tickets were sold. Display the output making use of a ShowMessage component.

```
Question3_p   [X]

133 tickets sold

   OK
```
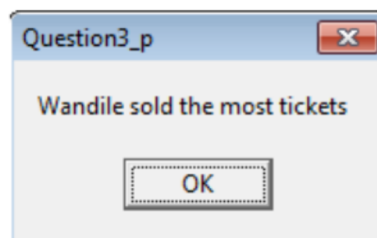
(5)

3.4 **LUCKY DRAWS**

Using the total calculated in QUESTION 3.3; get 10 random numbers (between 1 and 230) in order to award the 10 lucky draw prizes. If the random number does not represent a ticket that was sold then a new random number must be generated.

											88
Jack	1	5	65	3	87	56	45	127	0	0	75
Sarah	43	2	27	60	61	126	0	0	0	0	7
Ben	4	26	29	85	102	164	0	0	0	0	78
Lily	23	28	58	59	121	0	0	0	0	0	47
Jocelyn	7	22	57	83	84	161	0	0	0	0	42
Adrian	25	30	62	100	128	0	0	0	0	0	9
Anathi	6	21	82	99	120	171	0	0	0	0	148
Anita	31	63	64	118	158	203	0	0	0	0	80
Ashwin	20	32	81	97	132	0	0	0	0	0	29
Peter	10	55	86	103	155	0	0	0	0	0	
Chloe	33	67	79	80	144	0	0	0	0	0	
Jeff	19	54	70	110	136	0	0	0	0	0	
Nathi	8	34	78	35	139	0	0	0	0	0	
Wandile	9	51	52	53	116	174	175	176	184	0	
Kerry	36	71	72	95	140	0	0	0	0	0	
Sethu	17	73	87	106	154	0	0	0	0	0	

(6)

3.5 **MOST SOLD**

Calculate which child sold the most tickets and display the child's name using a ShowMessage component.

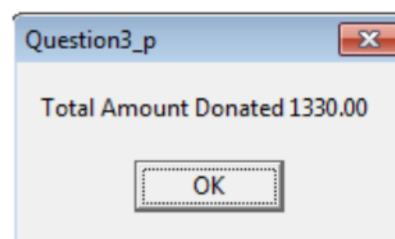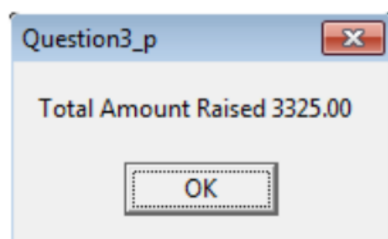Question3_p

Wandile sold the most tickets

OK

(9)

3.6 **AMOUNT RAISED?**

Calculate and display, making use of ShowMessage components:
- the amount of money raised if each ticket cost R25.
- 40% of the total amount was donated to an underprivileged school. Display the amount that was donated.

Both amounts must be rounded off to two decimal places.

Question3_p

Total Amount Raised 3325.00

OK

Question3_p

Total Amount Donated 1330.00

OK

(5)

- Enter your name and surname as a comment line in the first line of the file named **Question3_uX.pas.**
- Save the unit **Question3_uX** and the project **Question3_pX** (File|Save All).
- Make a printout of the code of the **Question3_uX.pas** file.   **[37]**

TOTAL: 120