**Section: MCQ**

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| **Q1:** | Which of the following controls is suitable to be used in a UserForm to collect the names of users? | **Mark (1)** |
|  | Label | |
|  | CheckBox | |
|  | CommandButton | |
|  | TextBox | |

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| **Q2:** | What is the name of the control that is circled in red below?  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_1594149268_-738179389.gif | **Mark (1)** |
|  | SpinButton | |
|  | ComboBox | |
|  | ListBox | |
|  | OptionButton | |

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| **Q3:** | Which of the following statements are correct about the array *MyArray*?  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-38925075_1145158810.gif  i)       *MyArray* can store 11 elements.  ii)     The first element in *MyArray* is “ESE”  iii)    Ubound(*MyArray*) = 10 | **Mark (1)** |
|  | ii and iii | |
|  | i and ii | |
|  | i and iii | |
|  | i, ii and iii | |

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| **Q4:** | What value is stored inside *YourArray*(1) after the following code has finished running?  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-941190984_2059869606.gif | **Mark (1)** |
|  | ESE | |
|  | MSA | |
|  | None of the options is correct. | |
|  | MUE | |

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| **Q5:** | Which of the following are examples of a one-to-many relationship in a database table?  i)       Name and person  ii)     Job position in company and employee  iii)    Student ID and student name | **Mark (1)** |
|  | i and iii | |
|  | i and ii | |
|  | i, ii and iii | |
|  | ii and iii | |

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| **Q6:** | The table below shows records of students in a class.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_139744875_-20672766.gif  Which of the following SQL query statements can be used to retrieve the name of the student with a Student ID of “17029384”? | **Mark (1)** |
|  | SELECT StudentRecords FROM StudentName WHERE StudentID = “17029384” | |
|  | SELECT StudentName FROM StudentRecords WHERE StudentID = “17029384” | |
|  | None of the options is correct. | |
|  | SELECT StudentID = “17029384 FROM StudentRecords WHERE StudentName | |

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| **Q7:** | Which of the following file extensions are file formats that can be imported into a Microsoft Access database?  i)       .csv  ii)     .txt  iii)    .xlsx | **Mark (1)** |
|  | i and iii | |
|  | i and ii | |
|  | i, ii and iii | |
|  | ii and iii | |

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| **Q8:** | Which of the following Excel functions can be used to determine the number of “A” in the table below?  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_1817501_-996610199.gif | **Mark (1)** |
|  | SUMIF | |
|  | COUNTIF | |
|  | None of the options is correct. | |
|  | VLOOKUP | |

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| **Q9:** | Which of the following graphs shows the result of a simple linear regression? | **Mark (1)** |
|  | C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_696954732_2041453854.gif | |
|  | C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_1022411932_-1135707530.gif | |
|  | C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-219616609_1860741961.gif | |
|  | C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-1470080577_-1127183683.gif | |

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| **Q10:** | The equation of a regression model is y = 2x – 4. Which of the following is a possible trendline for the data points in this model? | **Mark (1)** |
|  | C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-929680370_-930071920.gif | |
|  | C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-752174007_454709953.gif | |
|  | None of the options is correct. | |
|  | C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-1027531850_1345090048.gif | |

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| **Q11:** | The relationships between 3 tables in a database are as shown below.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-352460630_-1927241265.gif  Which of the following fields in Table 2 are foreign keys?  i)       StudentID  ii)     ModuleID  iii)    ClassVenue | **Mark (1)** |
|  | i and iii | |
|  | i and ii | |
|  | i, ii and iii | |
|  | ii and iii | |

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| **Q12:** | Which of the following options is not found under the Debug menu of the Excel VBA editor?  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_337756826_1752024249.gif  i)       Break  ii)     Immediate Window  iii)    Step Into | **Mark (1)** |
|  | i and iii | |
|  | i and ii | |
|  | i, ii and iii | |
|  | ii and iii | |

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| **Q13:** | Jack collected data on the arrival rate of taxis and the length of the queue at a taxi stand. He found that as the arrival rate increases, the queue length decreases. This is an example of | **Mark (1)** |
|  | Negative correlation between arrival rate and queue length | |
|  | Positive correlation between arrival rate and queue length | |
|  | The correlation between arrival rate and queue length cannot be determined based on the information given | |
|  | No correlation between arrival rate and queue length | |

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| **Q14:** | Which of the following tasks can be accomplished using the Immediate Window in the VBA editor?  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_147984887_-1214836969.gif  i)       Add an IF-Else statement into the existing subroutine  ii)     Change the values of variables  iii)    Display the values of variables | **Mark (1)** |
|  | i and iii | |
|  | i and ii | |
|  | i, ii and iii | |
|  | ii and iii | |

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| **Q15:** | What is the value stored inside the variable “counter” after the following code segment has finished running?  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-539585186_951533098.gif | **Mark (1)** |
|  | 1 | |
|  | 5 | |
|  | 6 | |
|  | 0 | |

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**Section: Short-ans Qn1**

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| **Q16:** | What is a database? | **Mark (1)** |
|  |  | |
|  | Word Count: 17 | Max Words: 100 |

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| **Q17:** | Give **FOUR (4)** examples of database applications. | **Mark (4)** |
|  |  | |
|  | Word Count: 9 | Max Words: 100 |

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| **Q18:** | List **THREE (3)** types of database models. | **Mark (3)** |
|  |  | |
|  | Word Count: 3 | Max Words: 100 |

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**Section: Short-ans Qn2**

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| **Q19:** | Fill in the blanks below with one of the following Microsoft Access data types:  Currency, Date/Time, Long Text, Number, OLE Object, Short Text, Yes/No   |  |  | | --- | --- | | **Data** | **Data Type** | | Student name |  | | Photograph of student |  | | Enrolment date |  | | Diploma that the student is enrolled in |  | | Number of modules that the student has failed in |  | | Amount of outstanding school fees |  | | Short paragraph of the student’s self-description |  | | Eligibility for tuition grant |  | | **Mark (8)** |

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**Section: Short-ans Qn3**

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| **Q20:** | List **FOUR (4)** things that the Query Wizard in Microsoft Access can be used to do. | **Mark (4)** |
|  |  | |
|  | Word Count: 26 | Max Words: 100 |

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| **Q21:** | What does SQL stand for? | **Mark (1)** |
|  |  | |
|  | Word Count: 6 | Max Words: 100 |

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| **Q22:** | List **FOUR (4)** advantages of using SQL databases. | **Mark (4)** |
|  |  | |
|  | Word Count: 26 | Max Words: 100 |

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| **Q23:** | Fill in the blanks below with the SQL command that can used to perform the function.  SQL commands: DELETE, INSERT, SELECT, UPDATE  Modify existing data in a table  Remove existing data in a table  Extract existing data from a table  Add new data into a table | **Mark (4)** |

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**Section: Short-ans Qn4**

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| **Q24:** | Write code inside the subroutine UserForm\_Initialize() such that ComboBox1 (shown below) contains the words “Good”, “Fair”, “Poor” when UserForm1 is run.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_1533860010_1818281442.gif | **Mark (6)** |
|  |  | |
|  | Word Count: 14 | Max Words: 100 |

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| **Q25:** | The following code is run when the user makes his choice of food using the radio buttons shown below the code.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_609060948_149639873.gif  What text will be displayed in the TextBox if the user selects “Halal” as his choice of food? | **Mark (1)** |
|  |  | |
|  | Word Count: 10 | Max Words: 100 |

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| **Q26:** | Write code inside the subroutine ButtonSubmit\_Click() that will display a message box if the user had clicked on the Submit button without selecting any of the choices in the checkboxes shown below.  The message in the message box should read “Please select a shipping method.”  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_608794267_211449360.gif | **Mark (4)** |
|  |  | |
|  | Word Count: 21 | Max Words: 100 |

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**Section: Short-ans Qn5**

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| **Q27:** | Modify the code below such that all the elements in the array will contain the value “1” instead of “0”.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_694216866_677262566.gif | **Mark (2)** |
|  |  | |
|  | Word Count: 19 | Max Words: 100 |

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| **Q28:** | Fill in the missing code below to change the size of the array *MyArray* from 5 to 7.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-497377026_1282423542.gif | **Mark (2)** |
|  |  | |
|  | Word Count: 25 | Max Words: 100 |

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| **Q29:** | Study the code below and answer the following questions.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_491159450_230944220.gif  i)       What does LBound and UBound stand for?  ii)       What is the value of LBound(Test)?  iii)       What is the value of UBound(Test)? | **Mark (4)** |
|  |  | |
|  | Word Count: 41 | Max Words: 100 |

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| **Q30:** | Fill in the missing code in the subroutine below to store the IDs and names into the two-dimensional array named “People”.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-1662725466_-751421869.gif | **Mark (4)** |
|  |  | |
|  | Word Count: 52 | Max Words: 100 |

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**Section: Short-ans Qn6**

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| **Q31:** | The table below shows how the frequency of crickets’ chirping changes with the temperature. Copy the table into Excel and answer the following questions.   |  |  | | --- | --- | | **Temperature/°C** | **Frequency of chirping** | | 31.4 | 20.0 | | 22.0 | 16.0 | | 34.1 | 19.8 | | 29.1 | 18.4 | | 27.0 | 17.1 |   a) Plot an X-Y scatter chart and add a linear trend line into the chart. You do not need to show the chart in your answer. What is the equation of the trend line? (1 mark)  Conduct a regression analysis on the data using the Data Analysis ToolPak in Excel.  b) What is the value of the coefficient of determination, R2 for this regression model? (1 mark)  c) What is the value of the correlation coefficient, r, for this regression model? (1 mark)  d) What is the p-value of the slope coefficient? (1 mark)  e) What is the p-value of the intercept coefficient? (1mark)  f) Based on the p-values, can the equation of the trend line be used to make predictions? Explain your answer. (2 marks)  g) Use the equation of the trend line to calculate the predicted frequency of chirping if the temperature is 30°C. (2 marks) | **Mark (10)** |
|  |  | |
|  | Word Count: 115 | Max Words: 100 |

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**Section: Short-ans Qn7**

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| **Q32:** | Jack wanted to colour the following cells yellow using VBA code.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-741296607_1566267717.gif  He wrote the following subroutine to do it.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-741296607_-1425825736.gif  However, there was an error in his code which resulted in the following error when he tried to run the code.  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-741296607_-218739064.gif  Modify the code so that it can run correctly. | **Mark (4)** |
|  |  | |
|  | Word Count: 23 | Max Words: 100 |

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| **Q33:** | Jack wanted to write a subroutine to convert a score into a grade based on the following conversion table.   |  |  | | --- | --- | | **Number** | **Grade** | | 41 to 50 | A | | 31 to 40 | B | | 21 to 30 | C | | 11 to 20 | D | | 0 to 10 | F |   He wrote the following code to do it:  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_-2019087452_-495757644.gif  Jack tested his code by entering the number 45 into the input box. Instead of displaying the message box “Your grade is A”, his code displayed all the 4 message boxes.  Modify Jack’s code so that it can run correctly. | **Mark (4)** |
|  |  | |
|  | Word Count: 61 | Max Words: 100 |

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**Section: Short-ans Qn8**

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| **Q34:** | It is good programming practice to divide a huge chunk of code into different functions and subroutines. Give **TWO (2)** reasons for why this is a good practice. | **Mark (2)** |
|  |  | |
|  | Word Count: 16 | Max Words: 100 |

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| **Q35:** | Fill in the blanks in the code below with the correct VBA data type.  VBA data types: Boolean, Byte, Double, Integer, String  C:\Users\17046589\AppData\Roaming\Republic Poly\eQuest\_assessmentimages\_assessmentimg_1986829823_-697729548.gif  Function Calculate ( i As , j As ) As                MsgBox i                Calculate = j \* 2.4  End Function | **Mark (3)** |

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**Section: Short-ans Qn9**

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| **Q36:** | Write a subroutine named “ESE\_Qn9” that will go through the table and replace any number that is less than 50 with the word “Fail”.   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **StudentID** | **Score 1** | **Score 2** | **Score 3** | **Score 4** | **Score 5** | **Score 6** | | 1 | 38 | 75 | 69 | 15 | 97 | 53 | | 2 | 30 | 45 | 28 | 100 | 40 | 43 | | 3 | 3 | 35 | 45 | 95 | 65 | 6 | | 4 | 77 | 47 | 93 | 70 | 87 | 22 | | 5 | 95 | 17 | 30 | 47 | 62 | 70 | | 6 | 26 | 9 | 7 | 4 | 66 | 77 | | 7 | 99 | 80 | 74 | 36 | 11 | 45 | | 8 | 58 | 3 | 6 | 97 | 40 | 53 | | 9 | 71 | 23 | 19 | 82 | 14 | 61 | | **Mark (10)** |
|  |  | |
|  | Word Count: 35 | Max Words: 100 |

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