**Contestant Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Time: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Rank: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



**DATABASE APPLICATIONS**

(240)

**REGIONAL 2022**

**Production:**

**Job 1: Winter Sports Table \_\_\_\_\_\_\_\_\_\_ (100 points)**

**Job 2: Athletes Table \_\_\_\_\_\_\_\_\_\_ (100 points)**

**Job 3: Relationship Report \_\_\_\_\_\_\_\_\_\_ (50 points)**

**Job 4: Payment Query \_\_\_\_\_\_\_\_\_\_ (100 points)**

**Job 5: Letters Earned Query \_\_\_\_\_\_\_\_\_\_ (50 points**

**Job 6: Letters Earned by Type Report \_\_\_\_\_\_\_\_\_\_ (100 points**

**TOTAL POINTS \_\_\_\_\_\_\_\_\_\_ (500 points)**

**Test Time: 90 minutes**

**GENERAL GUIDELINES:**

*Failure to adhere to any of the following rules will result in disqualification:*

1. Member must hand in this test booklet and all printouts if any.
2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests (handwritten, photocopied, or keyed) are allowed in the testing area.
3. Electronic devices will be monitored according to ACT standards.

## DATABASE APPLICATIONS

**SCORING SHEET**

|  | **Points Possible** | **Earned** |
| --- | --- | --- |
| **Job 1 – Winter Sports Table** |  |  |
| Correct field names (5 points per name) | **20** |  |
| Correct data entry (5 points per record) | **40** |  |
| Sports ID all Caps | **10** |  |
| Receive a Letter yes/no datatype | **10** |  |
| Wrote correct way of making Sports ID all CAPs | **10** |  |
| Printed using best fit | **10** |  |
| **Total for Job 1** | **100** |  |
| **Job 2 - Athletes Table** |  |  |
| Correct field names (5 points per name) (Receive a letter could be Letter) | **30** |  |
| Correct data entry (3 points per record) | **33** |  |
| Input Mask for Phone Number | **12** |  |
| Sorted by Last Name | **10** |  |
| Printed using best fit | **15** |  |
| **Total for Job 2** | **100** |  |
| **Job 3 - Relationship** |  |  |
| One to many relationship with referential Integrity created | **30** |  |
| Relationships for database printed | **20** |  |
| **Total for Job 3** | **50** |  |
| **Job 4 - Payment Query** |  |  |
| Correct field names (5 fields at 5 points each) | **25** |  |
| Monthly Payment calculated correctly | **15** |  |
| Cost of Letter calculated correctly | **15** |  |
| Monthly Payment formatted Currency | **15** |  |
| Cost of Letter formatted currency | **15** |  |
| Sorted by Last Name then first (ascending order First Name Column 1)) | **10** |  |
| Printed using best fit | **5** |  |
| **Total for Job 4** | **100** |  |
| **Job 5 – Letters Earned Query** |  |  |
| Correct Fields Name (4 fields at 5 points each) | **20** |  |
| Only show those who earned a letter | **15** |  |
| Sorted by Varsity Letters Earned (descending) | **10** |  |
| Printed using best fit | **5** |  |
| **Total for Job 5** | **50** |  |
| **Job 6 - Order Report** |  |  |
| Report format similar to example | **25** |  |
| Correct columns are included (5 columns at 4 points each) | **20** |  |
| Grouped by Sports ID | **15** |  |
| Varsity Letters Earned calculated correctly | **20** |  |
| Deleted the extra sum words | **10** |  |
| Printed in Portrait view | **10** |  |
| **Total for Job 6** | **100** |  |
| **Total Points Earned** | |  |

***Job 1***

1. Create a table to show the different types of sports offered at Professional Business High School. Name the table **Winter Sports #99999** where the 99999 is your contestant number. Use appropriate field names, types, widths and properties considering the data provided. Sports ID is the primary field. Make Sports ID formatted all caps and Receive a letter is yes/no datatype.
2. Enter the following information.

|  |  |  |  |
| --- | --- | --- | --- |
| Sports ID | Sports Name | Receive a Letter | Sport Fees |
| GB | H. S. Girls Basketball | Y | $80 |
| BB | H. S. Boys Basketball | Y | $80 |
| HSW | H. S. Wrestling | Y | $120 |
| 8BB | 8th grade Boys Basketball | N | $40 |
| 8GB | 8th grade Girls Basketball | N | $40 |
| 7BB | 7th Grade Boys Basketball | N | $40 |
| 7GB | 7th Grade Girls Basketball | N | $40 |
| JHW | Junior High Wrestling | N | $100 |

1. Resize columns to best fit and print table on one page.
2. Write on print out how you made Sports ID all CAPS.

***Job 2***

1. Create a second table named **Athletes - #99999** where the 99999 is your contestant number. Enter the data as shown. Use Student ID as the Primary Field. Use input mask for phone number and Sports ID to be formatted all caps.

| Student ID | First Name | Last Name | Phone # | Varsity Letters Earned | Sports ID |
| --- | --- | --- | --- | --- | --- |
| 914101143 | Tanner | Banner | (219) 555-2859 | 3 | BB |
| 914101424 | Alex | Oliver | (219) 555-4045 | 0 | 8GB |
| 914101196 | Lauren | Schwin | (219) 555-2215 | 3 | GB |
| 914101366 | Angie | Freeman | (219) 555-2121 | 3 | GB |
| 914103545 | Morgan | Tyler | (574) 555-7147 | 0 | 8GB |
| 914101444 | Logan | Sanders | (574) 555-6549 | 1 | BB |
| 914100066 | Logan | Delgado | (574) 555-3366 | 2 | BB |
| 914103836 | Grace | Taboada | (765) 555-8855 | 0 | 7GB |
| 914156986 | Jackson | Chahine | (765) 555-1468 | 0 | 7BB |
| 914157894 | Luke | Bahri | (765) 555-6874 | 2 | HSW |
| 914169258 | Sydney | Chahine | (219) 555-5866 | 0 | JHW |

1. Resize columns to best fit, sort by Last Name alphabetically (ascending) and print the table on one page.

***Job 3***

1. Connect the primary (first) table to the secondary (second) table in a one to many relationship based on Sports ID. Make sure referential integrity is set. Print the relationship ensuring that your contestant number and all fields show on the print.

***Job 4***

1. Make a query named **Payment Query** **#99999** where the 99999 is your contestant number using both tables.
   1. Include the fields First Name, Last Name, Sports Fees.
   2. Create a calculated field called Monthly Payment (Sports Fees/12).
   3. Create another calculated field called Cost for letter (Varsity Letters Earned \* Sports Fee).
   4. All the calculated fields should be formatted in currency with two decimals.
   5. Sort the Query by Last Name, then First Name (ascending), auto fit the columns and print the query.

***Job 5***

1. Make a new query called **Letters Earned #99999** where the 99999 is your contestant number.
   1. Include First Name, Last Name, Phone Number, and Sports ID for only those that have already earned a letter.
   2. Sort by Varsity Letters Earned where the largest number appears first.
   3. Auto fit the columns and print the query.

***Job 6***

1. Create a landscaped report called **Letters Earned by Type Report #99999** where the 99999 is your contestant number. Make report similar to the following example. Report will be made off of a query.
   1. Include the fields First Name, Last Name, Phone #, Sports ID, Varsity Letters Earned.
   2. Group by Sports ID
   3. Sort by Last Name
   4. Sum Varsity Letters Earned
   5. Make sure you can read all totals.

