Text BoxCOIS 3400H Fall 2023 – Lab 8: Relational Algebra

Consider the relations Courses1, Courses2, Enrollment and Students.

|  |  |  |
| --- | --- | --- |
| **Courses1** | **Courses2** | **Enrollment** |
| |  |  |  | | --- | --- | --- | | **cid** | **cname** | **Location** | | A1 | Calculus | L1 | | A2 | Algebra | L2 | | A5 | English | L3 | | |  |  |  | | --- | --- | --- | | **cid** | **name** | **Classroom** | | A5 | English | L3 | | B1 | History | L4 | | B2 | Computing | L5 | | |  |  | | --- | --- | | **sid** | **cid** | | 101 | A1 | | 102 | A5 | | 103 | B1 | | 102 | A1 | | 102 | A2 | |

**Student(**sid, sname, age, level**)**

Give the results of the following relational algebra expressions (the correct table sizes are provided you just need to fill out the contents of the tables):

1. pcid (s name =`History’ OR ‘Computing’(Courses2))

|  |
| --- |
| cid |
| B1 |
| B2 |

1. Courses1-Courses2

|  |  |  |
| --- | --- | --- |
| cid | cname | Location |
| A1 | Calculus | L1 |
| A2 | Algebra | L2 |

1. Courses1ÇCourses2

|  |  |  |
| --- | --- | --- |
| cid | cname | Location |
| A5 | English | L3 |

1. Courses1Enrollment

|  |  |  |  |
| --- | --- | --- | --- |
| sid | cid | cname | Location |
| 101 | A1 | Calculus | L1 |
| 102 | A1 | Calculus | L1 |
| 102 | A5 | English | L3 |
| 102 | A2 | Algebra | L2 |