**Morning**

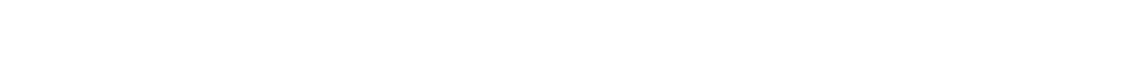
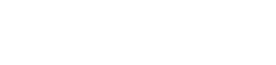
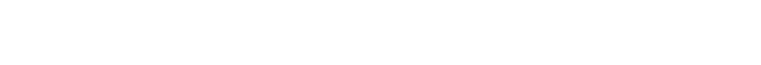
**F**

**-**

**19**

**(New Campus**

**)**



**PUNJAB UNIVERSITY COLLEGE OF**

**INFORMATION TECHNOLOGY (PUCIT)**

**Database Systems Quiz 2**



**Name:**

**Roll No:**

**Q1**

**Female\_students**

|  |  |  |
| --- | --- | --- |
| **Id** | **Marks** | **Gender** |
| **1** | **45** | **F** |
| **2** | **55** | **F** |
| **3** | **60** | **F** |

# 

**Male\_students**

|  |  |  |
| --- | --- | --- |
| **Id** | **Marks** | **Gender** |
| **10** | **20** | **M** |
| **11** | **22** | **M** |
| **12** | **59** | **M** |

1. **Write Algebraic Query to display all records where female students scored more than male students.**
2. **Execute Query and write the results in tabular format.**

**Q2**

**STUDENT**

|  |  |  |  |
| --- | --- | --- | --- |
| **Roll\_No** | **NAME** | **Age** | **Phone** |
| **1** | **Ali** | **18** | **11111111** |
| **2** | **Ahmed** | **18** | **22222222** |
| **3** | **Arif** | **20** | **33333333** |
| **4** | **Ayesha** | **19** | **44444444** |

**STUDENT\_Sports**

|  |  |
| --- | --- |
| **Roll\_No** | **Sports** |
| **1** | **Badminton** |
| **2** | **Cricket** |
| **2** | **Badminton** |
| **4** | **Badminton** |

**All\_Sports**

|  |
| --- |
| **Sports** |
| **Badminton** |
| **Cricket** |

**EMPLOYEE**

|  |  |  |  |
| --- | --- | --- | --- |
| **Emp\_No** | **NAME** | **Age** | **Phone** |
| **1** | **Ali** | **18** | **11111111** |
| **5** | **Ramlah** | **22** | **66666666** |
| **6** | **Umer** | **21** | **88888888** |
| **4** | **Ayesha** | **19** | **44444444** |

1. **Algebraic Query to find a person who is student as well as employee**
2. **Write the output of your query in tabular format**
3. **Write the same Algebraic Query but this time in terms of basic operators- Union and Minus**
4. **Algebraic Query for Division operator on** **STUDENT\_Sports AND** **All\_Sports**
5. **Results of your above query in tabular format**

**Q3**

**STUDENT**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **FIRST NAME** | **LAST NAME** | **SEMESTER** |
| **1** | **ALI** | **Usman** | **2** |
| **2** | **Ahmed** | **Khan** | **4** |
| **3** | **Arif** | **Faisal** | **1** |

**COURSE**

|  |  |  |
| --- | --- | --- |
| **ID** | **COURSE** | **CREDIT HOURS** |
| **1** | **ITC** | **2** |
| **2** | **PF** | **4** |
| **3** | **OOP** | **5** |

1. **Name of relation, cardinality, tuples and degree of both relations**

1. **Cartesian product student times course**

**Q4**

**STUDENT**

|  |  |
| --- | --- |
| **RollNo** | **Name** |
| **1** | **ALI** |
| **2** | **Ahmed** |
| **3** | **Arif** |

1. **Algebraic Query to rename the attributes of Student – RollNo, Name as (Sno, SName).**

**Q5**

**Table-A**

|  |  |  |
| --- | --- | --- |
| **Name** | **Age** | **Gender** |
| **Basit** | **14** | **M** |
| **Ayesha** | **15** | **F** |
| **Ali** | **20** | **M** |

# 

**Table-B**

|  |  |
| --- | --- |
| **Id** | **Course** |
| **1** | **DS** |
| **2** | **DBMS** |

# 

**Table-A Times Table-B**

**Q6**

**Emp**

|  |  |  |
| --- | --- | --- |
| **Name** | **Id** | **Dept\_name** |
| **A** | **120** | **IT** |
| **B** | **125** | **HR** |
| **C** | **110** | **Sale** |
| **D** | **111** | **IT** |

# 

**Dep**

|  |  |
| --- | --- |
| **Dept\_name** | **Manager** |
| **Sale** | **Y** |
| **Prod** | **Z** |
| **IT** | **A** |

# 

**Emp JOIN Dep**