题一、

1. П(PNO)(SPJ ⋈бcity=”LONDON”(J) ⋈бcity=”LONDON”(S))

2. П(PNO)(П(SNO,CITY)(S) ⋈П(JNO,CITY)(J) ⋈П(SNO,PNO,JNO)(SPJ))

3. П(JNAME)(П(JNO)(бSNO=”S1”(S) ⋈SPJ) ⋈J)

4. П(JNAME)(б(COLOR=”red”)(П(PNO,COLOR)(P)) ⋈П(SNO,PNO,JNO)(SPJ) ⋈J)

5. П(JNAME,PNO)(J⋈SPJ) ÷П(PNO)(P)

6. П(SNAME,PNO)(S⋈SPJ)÷(P1∪P2)

7. П(PNAME)(П(COLOR)(бPNAME=”TV”(P)) ⋈P)

题二、

1. П(Sno,Sname)(бCname=”数学”(C) ⋈SC⋈S)

2. П(Sno)(бCno=1(C) ⋈SC)∩П(Sno)(бCno=3(C) ⋈SC)

3. П(Sno,Sname,Age)(б18≤Age≤20 ∩ sex=”女”(S))

4. П(Sno,Sname,Grade)(бCname=”数据库”(C) ⋈SC)

5. П(Sname,SD,Cno)(S⋈SC)÷П(Cno)(C)

6. П(Sname,SD,Cno)(S⋈SC)÷П(Cno)(C) – П(Sname,SD)(бCno=”2”(C) ⋈C⋈S)

题三、

R1:

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |
| 9 | a | E | f |
| 7 | g | e | f |

R2

|  |  |
| --- | --- |
| A | D |
| 2 | d |
| 7 | d |

R3:

|  |  |
| --- | --- |
| A | D |
| 2 | d |
| 7 | d |
| 9 | f |
| 2 | f |
| 9 | e |
| 7 | f |
| 8 | f |

R4:

|  |  |
| --- | --- |
| A | D |
| 9 | f |
| 2 | f |
| 9 | e |
| 7 | f |

R5:

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |
| 2 | b | c | d |
| 7 | g | c | d |

R6:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| R.A | B | R.C | R.D | W.A | W.C | W.D |
| 7 | g | e | f | 2 | c | d |
| 7 | g | c | d | 2 | c | d |

R7:

|  |  |
| --- | --- |
| A | B |
| 2 | b |
| 7 | g |