

第三次作业

1.

$\exists cno, gra, opt((S(sno, sname, dept) \wedge (dept \neq \text{'计算机系'})) \wedge L(sno, cno, gra) \wedge (C(cno, cname, C.dept, opt) \wedge opt = \text{'数据库'} \wedge dept = \text{'计$

2.

$\exists dept(S(sno, sname, dept) \wedge \forall cno(\exists cname(C(cno, cname, \text{'计算机系'}, \text{'专业准入'})) \rightarrow \exists gra(L(sno, cno, gra))))$

3.

$\forall grad_1(\exists sno_1, sno_2(L(sno_1, cno, gra_1) \wedge L(sno_2, cno, gra_2)) \rightarrow gra_2 \leq gra_1) \wedge$
 $\forall grad_2(\exists sno_1, sno_2(L(sno_1, cno, gra_1) \wedge L(sno_2, cno, gra_2)) \rightarrow gra_2 \leq gra_1)$

4.

$\forall cno((\exists gra(L(sno, cno, gra)) \wedge \forall sno_1, gra_1(L(sno_1, cno, gra_1))) \rightarrow gra \geq gra_1)$

5.

$\exists sname((S(sno, sname, dept) \wedge C(cno, cname, dept, \text{'专业准出'})) \wedge$
 $\forall cno(\exists cname(C(cno, cname, dept, \text{'专业准出'}) \wedge C.dept = S.dept) \rightarrow (SC(sno, cno, g) \wedge g \geq 60)))$