

**CSC742**  
**HW 1 Solution**

**1.1)** (Omitted)

**1.2)** (Omitted)

**Notice:**

The process of bcp will corrupt some values in the tables, so you must update these values.

The first record in table "Staff" has salary value '300000', which cannot be inserted into database. If you want to update it to a new value, you must point out explicitly in your homework.

**1.3)**

Any of the following may throw an SQLException.

Opening a connection.

Creating a statement object.

Executing the query.

Assumes there is a Staff table.

Process the result set.

Fetches value 8231

**2.2)**

$(\forall S: (\text{student}(S) \wedge \text{live-in}(S, \text{Raleigh})) \rightarrow (\forall C1, C2: (\text{course}(C1) \wedge \text{course}(C2) \wedge \text{takes}(S, C1) \wedge \text{takes}(S, C2)) \rightarrow C1=C2))$

**2.3)**

$(\forall S: (\text{student}(S) \wedge \text{live-in}(S, \text{Raleigh})) \rightarrow ((\exists C: \text{course}(C) \wedge \text{takes}(S, C)) \wedge (\forall C1, C2: (\text{course}(C1) \wedge \text{course}(C2) \wedge \text{takes}(S, C1) \wedge \text{takes}(S, C2)) \rightarrow C1=C2)))$

**2.4)**

$(\forall S1, S2: (\text{student}(S1) \wedge \text{student}(S2) \wedge (\forall g1, g2: (\text{gpa}(S1, g1) \wedge \text{gpa}(S2, g2) \wedge (g1=g2)))) \rightarrow (\forall p1, p2: (\text{support}(S1, p1) \wedge \text{support}(S1, p2)) \rightarrow (p1=p2))))$