第一题：

CREATE TABLE Stu\_Union(sno CHAR(5) NOT NULL UNIQUE,

sname CHAR(8),

ssex CHAR(1),

SAGE INT,

sdept CHAR(20),

CONSTRAINT PK\_Stu\_Union PRIMARY KEY(sno));

CREATE TABLE Course(cno CHAR(4) NOT NULL UNIQUE,

cname varchar(50) NOT NULL,

cpoints int,

CONSTRAINT PK PRIMARY KEY(cno));

CREATE TABLE SC(sno CHAR(5) REFERENCES Stu\_Union(sno) on delete cascade,

cno CHAR(4) REFERENCES Course(cno) on delete cascade,

grade INT,

CONSTRAINT PK\_SC PRIMARY KEY(sno,cno));

alter table SC drop [FK\_\_SC\_\_sno\_\_05D8E0BE]

alter table SC drop [FK\_\_SC\_\_cno\_\_06CD04F7]

alter table SC add

CONSTRAINT [FK\_\_SC\_\_cno\_\_37A5467C] FOREIGN KEY

(

[cno]

)REFERENCES [dbo].[course](

[cno]

)on delete no action

alter table SC add

CONSTRAINT [FK\_\_SC\_\_sno\_\_36B12243] FOREIGN KEY

(

[sno]

)REFERENCES [dbo].Stu\_Union(

[sno]

)on delete no action

insert into Stu\_Union values('10001','李敏','0',24,'EE');

insert COURSE values ('0001','ComputerNetworks',2);

insert into Sc values('10001','0001',2);

delete from stu\_union where sno='10001'

消息547，级别16，状态0，第1 行

DELETE 语句与REFERENCE 约束"FK\_\_SC\_\_sno\_\_36B12243"冲突。该冲突发生于数据库"School"，表"dbo.SC", column 'sno'。

语句已终止。

因为设置了外键是on delete no action，所以不能删除或者更新主键所在表的主键值

第二题：

alter table SC drop [FK\_\_SC\_\_cno\_\_403A8C7D]

alter table SC drop [FK\_\_SC\_\_sno\_\_3F466844]

alter table SC add

CONSTRAINT [FK\_\_SC\_\_cno\_\_37A5467C] FOREIGN KEY

(

[cno]

)REFERENCES [dbo].[course](

[cno]

)on delete set NULL

alter table SC add

CONSTRAINT [FK\_\_SC\_\_sno\_\_36B12243] FOREIGN KEY

(

[sno]

)REFERENCES [dbo].Stu\_Union(

[sno]

)on delete set NULL

delete Stu\_Union where sno='10001'

这里原来一开始执行的时候报错了，因为在创建表的时候将sno设置成了主键，主键不能是null，因此不能设置约束为on delete set NULL。需要先将主键移除允许sno为null。

可以发现在sc表中原来10001对应的位置变成了NULL，而这条记录的cno grade还是原来的值。

第三题

create table Stu\_Card(

card\_id char (14),

stu\_id char(10) references students(sid) on delete cascade,

remained\_money decimal(10,2),

constraint PK\_stu\_card Primary key(card\_id))

create table ICBD\_Card(

bank\_id char(20),

stu\_card\_id char(14) references stu\_card(card\_id) on delete cascade,

restored\_money decimal(10,2),

constraint PK\_Icbc\_card Primary key(bank\_id)

)

alter table Stu\_Card drop [FK\_\_ICBD\_Card\_\_stu\_id\_\_44FF419A]

alter table Stu\_Card add

CONSTRAINT [FK\_\_ICBD\_Card\_\_stu\_id\_\_44FF419A] FOREIGN KEY

(

[stu\_card\_id]

)REFERENCES [dbo].[stu\_card](

[card\_id]

)on delete set NULL

insert into Stu\_Card values('05212567','800001216',100.25)

insert into Stu\_Card values('05212222','800005753',200.25)

insert into ICBD\_Card values('9558844022312','05212567',10000.25)

insert into ICBD\_Card values('9558844023645','05212222',20000.25)

delete STUDENTS where sid ='800001216'

成功删除了目标，因为校园卡表是级联删除，因此校园卡表对应sid被删除，ICBC表中对应sid对应的校园卡号位置变成了null。

这里注意需要去choice表中把对应的外键约束改成级联删除

第四题：

create table HZB(

sid char(10) Primary key,

sname char(10),

targer\_id char(10)

)

alter table HZB add

CONSTRAINT [FK\_\_ZCZ] FOREIGN KEY

(

target\_id

)REFERENCES HZB(

sid

)

创建一个表包含学生id学生名字和帮助对象的id，先创建表后在设置外键约束。

第五题：

create table lead(

member\_id char(10) primary key，

member\_name char(10),

minister\_id char(10)

)

create table evaluate(

minister\_id char(10) primary key,

minister \_name char(10),

member\_id char(10)

)

alter table lead add

CONSTRAINT [FK\_lead] foreign key(minister\_id)

REFERENCES evaluate(minister\_id)

alter table evaluate add

CONSTRAINT [FK\_evaluate] foreign key(member\_id)

REFERENCES lead(member\_id)

定义两个表包含成员id和部长id。

Lead表表示领导表，一个成员只能被一个部长领导，设置成员是主键。

Evaluate是评测表，一个部长只能被一个成员评测，设置部长是主键

创建好表之后再互相引用对方作为外键。