

一 .

1.

$\{AB \rightarrow C, B \rightarrow D, C \rightarrow E, C \rightarrow B\}$

2.

AB

3.

$R_1 = \{A, B, C\}$

$R_2 = \{B, D\}$

$R_3 = \{B, C, E\}$

二 .

1.

$(AC)^+ = \{A, C, E, B, D\}$

2.

AC

3.

$\{B \rightarrow C, B \rightarrow E, C \rightarrow B, AE \rightarrow D\}$

4.

是无损连接分解

构造 Rp 表:

	A	B	C	D	R
S	a1	a2	a3	b14	b15
T	a1	a2	b23	a4	a5

根据函数依赖修改结果如下

	A	B	C	D	R
S	a1	a2	a3	a4	a5
T	a1	a2	a3	a4	a5

有一行全为 a, 故为无损连接分解

5.

$R_1 = \{B, C, E\}$

$R_2 = \{A, D, E\}$

$R_3 = \{A, C\}$

三 .

1.

$(AB)_F^+ = \{A, B, C, D, E\}$

2.

$\{AB \rightarrow C, BC \rightarrow A, BC \rightarrow D, D \rightarrow E, CF \rightarrow B\}$

3.

AB, AC

4.

$R_1 = \{A, B, C, D\}$

$R_2 = \{D, E\}$

$R_3 = \{B, C, F\}$

四 .

1.

$\{BD \rightarrow G, CD \rightarrow A, CE \rightarrow G, CDE \rightarrow B, B \rightarrow D\}$

2.

CDE

3.

$R1 = \{B, D, G\}$

$R2 = \{A, C, D\}$

$R3 = \{C, E, G\}$

$R4 = \{B, C, D, E\}$

五 .

1.

$(AC)_F^+ = \{A, B, C, D, E\}$

2.

$\{B \rightarrow C, C \rightarrow B, B \rightarrow E, AE \rightarrow D\}$

3.

AC

4.

$R1 = \{B, C, E\}$

$R2 = \{A, D, E\}$

$R3 = \{A, C\}$