Answer:

1

i.

a. ACEF, BCEF

b. Not BCNF, e.g. C *→* D, C doesn’t contain a key

c. Final schema (with keys boldened): **C**D, A**BC**, **BCEF**

ii.

a. AF, CF

b. Not BCNF, e.g. C *→* AB, C doesn’t contain a key

c. Final schema (with keys boldened): AB**C**, **CDEF**

iii.

a. ABCF, BCDF

b. Not BCNF, e.g. CD *→* E, CD doesn’t contain a key

c. Final schema (with keys boldened): **CD**E, **BD**A, **BCDF**

iv.

a. AB

b. Not BCNF, e.g. B *→* C, B doesn’t contain a key

c. Final schema (with keys boldened): **B**C, **AB**D, **ABEF**

2

3

4