Q. 4 Find out the candidate keys of a given relation R with attributes {A,B,C,D} with FDs
{A → B, B → C, C → D, D → A}.

A⁺	{A, B, C, D}
B⁺	{A, B, C, D}
C⁺	{A, B, C, D}
D⁺	{A, B, C, D}
No. of keys = 4	

Q. 5 Find out the candidate keys of a given relation R with attributes {A,B,C,D,E,F} with FDs
{C → F, E → A, EC → D, A → B}.

$(CE)^+ = \{C, E, F, A, D, B\}$
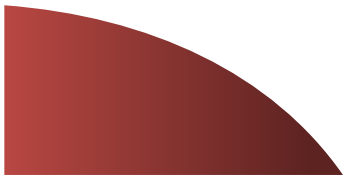
Q. 6 Find out the candidate keys of a given relation R with attributes {A, B, C, D} with FDs {AB → CD, C → A, D → B}.

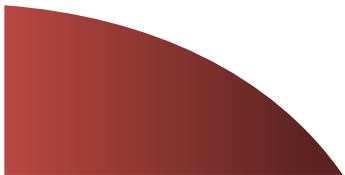| A⁺	{A}
B⁺	{B}
C⁺	{A, C}
D⁺	{B, D}
AB⁺	{A, B, C, D}
AC⁺	{A, C}
AD⁺	{A, D, B, C}
BC⁺	{B, C, A, D}
BD⁺	{B, D}
CD⁺	{C, D, A, B}
ABC⁺	
ABD⁺	SKs
BCD⁺	
ACD⁺	
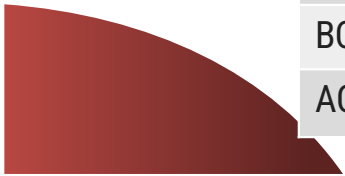
Q. 7 Find out the candidate keys of a given relation R with attributes {A, B, C, D, E} with FDs {AB → C, DE → B, CD → E}.

AD^+	{A, D}
ADB^+	{A, D, B, C, E}
ADC^+	{A, D, B, C, E}
ADE^+	{A, D, B, C, E}

Q. 8 Find out the candidate keys of a given relation R with attributes {A, B, C, D, E, F} with FDs {AB → C, C → D, D → E, E → F, F → A}.

B^+	{B}
AB^+	{A, B, C, D, E, F}
CB^+	{A, B, C, D, E, F}
DB^+	{A, B, C, D, E, F}
EB^+	{A, B, C, D, E, F}
FB^+	{A, B, C, D, E, F}
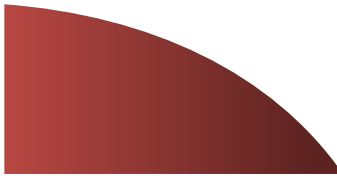
F = {AB → C, C → D, D → A} of a relation R(A, B, C, D). Find out all the candidate keys.

B⁺	{B}
AB⁺	{A, B, C, D}
CB⁺	{A, B, C, D}
DB⁺	{A, B, C, D}
CD⁺	{A, C, D}

Q. 10 F = {AB → C, B → D, D → B} of a relation R(A, B, C, D). Find out all the candidate keys.

A⁺	{A}
AB⁺	{A, B, C, D}
CA⁺	{A, C}
DA⁺	{A, B, C, D}

Q. 11 F = {Y → Z, Z → Y, Z → W, Y → P} of a relation R(P, W, X, Y, Z).
Find out all the candidate keys.

X^+	{X}
XP^+	{X, P}
XW^+	{X, W}
XY^+	{X, Y, Z, W, P}
XZ^+	{X, Z, Y, P, W}

Q. 12 F = {A → BC, CD → E, E → C, D → AEH, ABH → BD, DH → BC} of a relation R(A, B, C, D, E, H). Find out all the candidate keys.

D^+	{D, A, E, H, B, C}
AE^+	{A, E, B, C}
AH^+	{A, H, B, C, D, E}
EH^+	{E, H, C}