13(B)

1 i) $n(A) = 366$

ii) $n(B) = 12$

iii) $n(C) = 7$

iv) $n(D) = 5$

v) $n(E) = 3$

vi) $n(F) = 7$

vii) $n(G) = 5$

2. (i) infinite

(ii) ~~infinite~~ ϕ

(iii) finite

(iv) infinite

(v) infinite

(vi) ϕ

(vii) infinite

(viii) finite

3. (i) joint set

(ii) disjoint set

(iii) joint set

(iv) joint set

(v) joint set

4i) $A = \{1, 2, 3, 4\}$ $n(A) = 4$

$B = \{0, 1, 2, 3\}$ $n(B) = 4$

So A & B are equivalent.

ii) $A = \{F, O, L, W\}$ $n(A) = 4$

$B = \{W, O, L, F\}$ $n(B) = 4$

So, A & B are equal and equivalent.

iii) $E = \{2, 4, 6, 8\}$ $n(E) = 4$

$O = \{1, 3, 5, 7\}$ $n(O) = 4$

So, E & O are equivalent.

iv) $A = \{$Saturday, Sunday$\}$ $n(A) = 2$

$B = \{$Tuesday, Thursday$\}$ $n(B) = 2$

So, A & B are equivalent.

v) $M = \{12, 18\}$ $n(M) = 2$

$N = \phi$ $n(N) = 0$

So, M & N aren't equivalent.

vi) $P = \{2, 7, 5\}$ $N(P) = 3$

$Q = \{5, 7, 3\}$ $N(Q) = 3$

So, P & Q are equivalent.

VII) $A = \{0, 1, 4, 9, 16\}$ $N(A) = 5$

$B = \{16, 9, 1, 4, 0\}$ $N(B) = 5$

So, A & B are equivalent.

VIII) $E = \{8, 10, 12, 14, 16\}$ $N(E) = 5$

$F = \{8, 10, 12, 14, 16\}$ $N(F) = 5$

So, E & F are equal and equivalent.

IX) $A = \{S, U, P, E, R, T, I, O, N\}$ $N(A) = 9$

$B = \{J, U, R, I, S, D, C, T, ON\}$ $N(B) = 10$

So, A & B aren't equivalent.

5. (i) not an empty set

(ii) empty set

(iii) empty set

(iv) not an empty set

6. (i) T (vi) F

(ii) T (vii) F

(iii) F (viii) F

(iv) T (ix) T

(v) F (x) T

7. Φ, { }