(iii) If $C = \{0\}$

= Then number of subsets of $C = 2^1 = 2$

(iv) If $M = \{x : x \in N \text{ and } x < 3\} = \{1, 2\}$

Then M has proper subset $= 2^2 - 1 = 4 - 1$

= 3

To (i) $A = \{\text{even numbers}\}$

= $\{4, 6, 8, 10, 12\}$

(ii) $B = \{\text{odd numbers}\}$

= $\{9, 11, 13\}$

(iii) $C = \{\text{prime numbers}\}$

= $\{5, 7, 11, 13\}$

(iv) $D = \{\text{even numbers less than } 10\}$

= $\{4, 6, 8\}$

= $A = \{5, 7, 9, 11, 13\}$

= $B = \{4, 5, 6, 7, 8, 10, 12\}$

$C = \{4, 6, 8, 9, 10, 12\}$

$D = \{5, 7, 9, 10, 11, 12, 13\}$

×2×

(ii) $C \subseteq A$ (F)

(iii) $D \subset C$ (F)

(iv) $D \not\subset A$

(v) $E \supseteq B$ (F)

(vi) $A \supset B \supset E$: (T)

5 (i) $A = \{a, c\}$

= Subsets are $\{\}$, $\{a\}$, $\{c\}$ and $\{a, c\}$

(ii) $B = \{p, q, r\}$

Subsets are $\{\}$, $\{p\}$, $\{q\}$, $\{r\}$, $\{p, q\}$, $\{q, r\}$ and $\{p, q, r\}$

(iii) C = Set of digit used in 135, = $\{1, 3, 5\}$

Subsets are = $\{\}$

= $\{0\}$ $\{1\}$ $\{3\}$, $\{5\}$, $\{1, 3\}$, $\{1, 5\}$, $\{2, 5\}$ and $\{1, 3, 5\}$

6 (i) If $A = \{p, q, r\}$

Then number of subsets of $A = 2^3 =$

$2 \times 2 \times 2 = 8$

(ii) If $B = \{5, 4, 6, 8\}$

Then number of proper subsets of $B = 2^4 - 1 = 2 \times 2 \times 2 \times 2 - 1 = 16 - 1 = 15$ (Ans)

Every set is subset of itself

Ao, (i) (iv), (v) are subsets.

30 (ii) P = {2, 3, 4, 5}

(i) A = {3, 4}

(ii) B = { }, C = {23, 45}

D = {6, 5, 4} and E = {0}

We see that only A and B are proper subsets of P

40 (i) B ⊂ A

(ii) C ⊆ A

(iii) D ⊂ C

(iv) D ⊄ A

(v) E ⊇ B

(vi) A ⊃ B ⊃ E

= A = {Even number less than 12} = {2, 4, 6, 8, 10}

= B = {2, 4}

C = {1, 2, 3}

D = {2, 6} and E = {4}

(i) B ⊂ A (T)

Q 13 (c)

1. Fill in the blanks

(i) If each element of set P is also an element of Q then P is said to be subset of Q and Q is said to be super set of P

(ii) Every set is a subset of itself

(iii) The empty set is a subset of every set

(iv) If A is proper subset of B, then n(A) is less than n(B)

2. (i) B = {5, 8}
= B ⊂ A

(ii) C = {0}
= C ⊂ A

(iii) D = {7, 9, 10}
= D ⊄ A

(iv) E = { }
= E ⊂ A can empty set is subset of every set.

(v) F = {8, 7, 9, 5}
= F ⊂ A

			2.8.21		
2.	12 (A)		2.8.21		
12.	12 (A) Home assignment		2.8.21		
13.	Ex 12 (B)		4 3.8.21		
4.	Ex - 12 (B)		4.8.21		
5.	Ex-13 (A)		12.8.21		
6.	Ex-13 (B)		13.8.21		
7.	Ex-13 (C)		16. 8.21		