

9.7.21

Ex-10.3

1. (i)  $A = \{3, 6, 9, 12, 15\}$

(ii)  $B = \{-3, -2, -1, 0, 1, 2, 3\}$

(iii)  $C = \{s, c, h, o, l\}$

(iv)  $D = \{11, 13, 15, 17, 19\}$

(v)  $E = \{a, e, i\}$

(vi)  $F = \{m, a, d, r, s\}$

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2. (i)  $A = \{2, 3, 5, 7, 11, 13, 17, 19\}$

(ii)  $B = \{1^2, 2^2, 3^2, 4^2\} = \{1, 4, 9, 16\}$

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

(iv)  $D = \{a, b, c, d, e, f, g, h\}$

(v)  $E = \{b, a, s, k, e, t\}$

(vi)  $F = \{\text{Jaipur, Jhansi, Jodhpur, Jalandhar}\}$

(vii)  $G = \{\text{Circle, Triangle, Rectangle, Square}\}$

(viii)  $H = \{0, A\}$

(ix)  $I = \{0^2, 1^2, 2^2, 3^2\} = \{0, 1, 4, 9\}$

3. (i)  $\{x : x \text{ is an even natural number less than } 11\}$

(ii)  $\{x : x \text{ is a prime number less than } 12\}$

(iii)  $\{x : x \text{ is a month starting with the letter } J\}$

(iv)  $\{x : x \text{ is a vowel}\}$

(v)  $\{x : x \text{ is the name of a day of the 7 days}\}$

starting with the letter J }

- (vi)  $\{x : x \text{ is a perfect square \& } x < 20\}$
- (vii)  $\{y : y \text{ is a multiple of 5 \& } y < 31\}$

4. (i) Roster Form =  $\{1, 2, 3, 4, 6, 8, 12, 24\}$   
Set Builder Form =  $\{x : x \text{ is a natural number that can divide 24 completely}\}$

(ii) Roster Form =  $\{21, 23, 25, 27, 29, 31, 33\}$   
Set - Builder Form =  $\{x : x \text{ is an odd number \& } x > 20 \text{ \& } x < 35\}$

(iii) Roster Form =  $\{c, a, l, u, t\}$   
Set - Builder Form =  $\{x : x \text{ is a letter used in the word 'CALCULATOR'}\}$

(iv) Roster Form =  $\{\text{January, February, March, April, May}\}$   
Set - Builder Form =  $\{x : x \text{ is the name of first five months of a year}\}$

(v) Roster Form =  $\{16, 25, 36, 49, 64, 81\}$   
Set - Builder Form =  $\{x : x \text{ is a two-digit that is a perfect square as well}\}$

5. (i)  $\{5, 15, 25, 35\}$

(ii)  $\{18, 24, 30\}$

(iii)  $\{\text{Friday, Saturday, Sunday}\}$

(iv)  $\{\text{September, October, November, December}\}$