CW
8/4·721

Disjoint sets - If the two sets has no common element is known as disjoint sets.

Eg - A = {1, 9, 5, 4}

B = {2, 3, 8, 7}

∴ A and B are disjoint sets

- Overlapping sets - If 2 given sets have at least 1 common element. They are said to be Overlapping sets.

Eg - A = {5, 6, 7, 4}

B = {2, 1, 9, 4}

4 is common in those two sets.
∴ A and B are overlapping sets.

Ex - 10 B(D)

Q8) i) {..., -8, -4, -1, 1, 35 ...} {..., -8, -4, 0, 4, 8} is a finite set. False.

ii) {-32, -28, -24, -20, ..., 0, 4, 8, 16} is a Infinite

False

iii) {x : x is a natural no. less than 1} is the empty set. True

iv) {Whole nos. between 15 and 16} = {5 and natural nos. between 5 and 6}. True

v) {Odd nos. divisible by 2} is the empty set. True

vi) {Even natural nos. divisible by 3} is the empty set. ~~False~~ ~~True~~ False.

vii) {x : x is positive and x < 0} is the empty set. True.

viii) {..., -5, -3, -1, 1, 3, 5, ...} is a finite set. False.

Hw

Q7) i) {2, 4, 6, ..., 800} Finite.

ii) {..., -5, -4, -3, -2} Infinite

iii) {x is an integer between -60 and 60} Finite

iv) {No. of electrical appliances working in your house} Finite

v) {x : x is a whole no. greater than 20} Infinite

vi) {x : x is a whole no. less than 20.} Finite.

Q9) i) A = {Girls with ages below 15 yrs} disjoint
= Overlapping
B = {Girls with ages above 15 yrs}

ii) ~~A~~ = {Boys with ages above ~~27~~ 25 years}
= Overlapping
D = {Boys with ages above ~~28~~ 27 years}

iii) A = {Natural nos. between 35 and 60}
= overlapping
B = {Natural nos. between 50 and 80}

iv) P = {~~Study~~ students of class ix studying in I.C.S.E Board}
Q = {Students of class IX} = Overlapping

v) PA = {Natural nos. that are multiples of 3
~~B~~ = less than 30}
divisible
B = {Natural nos ~~that~~ by 4 and lying between = Overlapping
20 and 45}

vi) P = Letters in the word 'ALLAHABAD'}
= Disjoint.
Q = Letters in the word 'MUSSORIE'}