1) State whether the given set is infinite or finite:

i) $\{3, 5, 7, \ldots\}$

ans infinite.

ii) $\{1, 2, 3, 4\}$

ans finite.

iii) $\{\ldots, -3, -2, -1, 0, 1, 2\}$.

ans infinite.

iv) $\{20, 30, 40, 50, \ldots, 200\}$

ans finite.

2) Which of the following sets is empty?

i) Answer: empty

ii) Ans - not empty

iii) Ans - empty

iv) Ans - empty

v) Ans - not empty.

3) state which pair of sets given below are equal sets and which are equivalent:

i) {3, 5, 7} and {5, 3, 7}

Ans equal

ii) {8, 6, 10, 12} and {3, 2, 4, 6}

Ans equivalent

iii) {7, 7, 2, 1, 2} and {1, 2, 7}

Ans equal

iv) {2, 4, 6, 8, 10} and {a, b, d, e, m}

Ans equivalent.

4) i) infinite
ii) infinite
iii) infinite
iv) finite
v) infinite
vi) finite
vii) finite
viii) infinite
ix) infinite
x) infinite

Exercise 10 (E)

Ag) A = {0, 1, 2, 4}

Ans 4

2g) {-3, -1, 1, 3, 5, 7}

Ans 6

3g) { }

ans 0

4g) {3, 2, 2, 1, 3, 1, 2}

Ans 3

5g) {Natural numbers between 15 and 20}

Ans 5

6g) {Whole numbers from 8 to 14}

Ans 7.

Bg) n(A)

Ans 9

(i) n(B)

Ans 4

(ii) n(C)

Ans 4

(iv) n(D)

Ans 0

3(i) false

correct : $n(A) = 1$

(ii) false

correct : $n(\emptyset) = 0$

(iii) True

(iv) false

correct : $n(B) = 4$.