



Nalanda Collage – Colombo 10

Grade 09 – Third Term

Unit Test 22

Mathematics

Sets

$1\frac{1}{4}$ hours

Part I

1. Define a “Set”.
2. Mention 3 sub sets of $P = \{a, e, l, o, u\}$.
3. Mention the number of elements in the set $A = \{2,3,5,7,11\}$
4. $P = \{\text{Prime numbers between 1 and 10}\}$
 $Q = \{\text{Digits in the number 735}\}$

What is the relationship of P and Q?

5. $\mathcal{E} = \{1,2,3,4,5,6,7\}$
 $A = \{2,3,5,7\}$

Represent above sets in a Venn diagram.

6. $X = \{2,4,6,8,10,12\}$
 $Y = \{3,6,9,12,15\}$

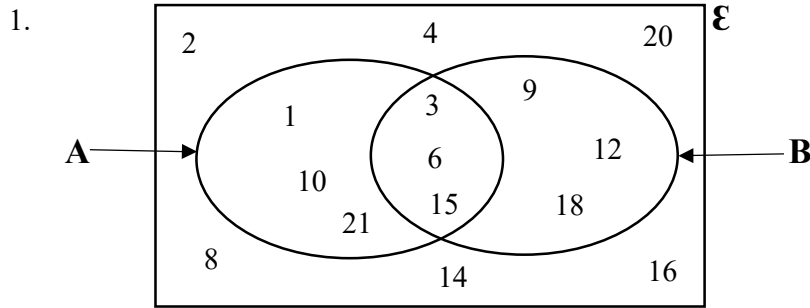
Mention the set of intersection of above given sets.

7. Mention the union of above sets.

8. $\mathcal{E} = \{5,10,15,20,25\}$
 $A = \{10,20\}$

What is A' ?

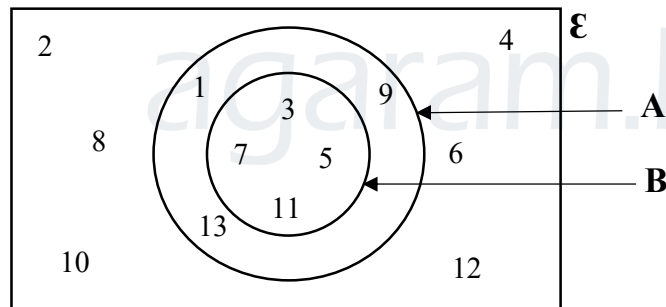
9. Represent BCA in a suitable Venn diagram.
10. Represent $A \cap B = \emptyset$ in a suitable Venn diagram.

Part II

Answer following question using given Venn diagram.

- i. Write the set of elements of A.
- ii. Write the set of elements of B.
- iii. Mention the elements of universal set \mathcal{E} ?
- iv. Describe the set A in words.
- v. Describe the set B in words.
- vi. Write the set $A \cap B$ with elements.
- vii. Write the set $A \cup B$ with elements.
- viii. Mention A' with elements.
- ix. Mention B' with elements.

2.



Using the Venn diagram mention the elements of following sets.

- i. A
- ii. B
- iii. A'
- iv. B'
- v. \mathcal{E}
- vi. $A \cap B$
- vii. $A \cup B$