SETS

COMPLEMENT OF SETS

EXERCISE

Q.1 What does A' signify when U is a universal set?

(a) A (b) Φ (c) U (d) U-A

Q.2 If A = {2, 3, 5} and U is the set of prime factors of 210, determine the complement of A, denoted as A'.

(a) {2,3,5} (b) {2,3,5,7} (c) {7} (d) Φ

Q.3 Does the complement of the complement of A equal A denote by (A')'=A?

(a) True (b) False

Q.4 Consider the universal set U = {1, 2, 3, 4, 5, 6}, set A = {1, 4}, and set B = {2, 3, 5}. Determine the complement of set A, denoted as A'.

(a) {2,3,5,6} (b) {1,2,3} (c) {1,4,6} (d) {1,2,3,4,5,6}

Q.5 Given the universal set U = {1, 2, 3, 4, 5, 6}, set A = {1, 4}, and set B = {2, 3, 5}, find the complement of set B, denoted as B'.

(a) {2,3,5,6} (b) {1,2,3} (c) {1,4,6} (d) {1,2,3,4,5,6}

Q.6 Given the universal set U = {1, 2, 3, 4, 5, 6}, A = {1,4} and B = {2,3,5}. Find A'∩B'.

(a) {2,3,5,6} (b) {1,2,3} (c) {6} (d) {1,2,3,4,5,6}

Q.7 Given the universal set U = {1, 2, 3, 4, 5, 6}, A = {1,4} and B = {2,3,5}. Then A'∩B' is equal to (A∪B)'.

(a) True (b) False

Q.8 Which of the following is equal to A∪A'?

(a) U (b) A (c) A' (d) U'

Q.9 If A is set of equilateral triangles then the complement of A denoted as A' is _____

(a) set of isosceles triangles

(b) set of scalene triangles

(c) union of sets of scalene and isosceles triangles

(d) intersection of sets of scalene and isosceles triangles

Q.10 Which of the following does not represent set A?

(a) $A \cap U$ (b) $A \cap \Phi'$ (c) $A \cup A'$ (d) $A \cup \Phi$

ANSWER KEY

1. (d)

2. (c)

3. (a)

4. (a)

5. (c)

6. (c)

7. (a)

8. (a)

9. (c)

10. (c)