

# UNIT 10 *Logic and Venn Diagrams*

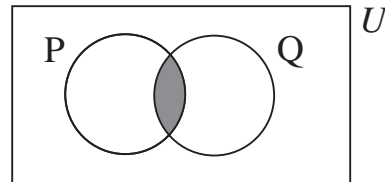
# CSEC Multiple Choice Questions

For each of these questions, choose the option (A, B, C or D) that is TRUE.

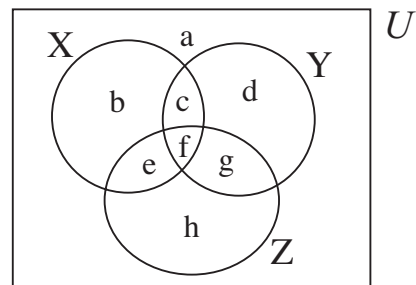
1. If  $U = \{1, 2, 3, \dots, 10\}$  and  $S = \{4, 5, 6, 7, 8\}$ , then  $S' =$
- (A)  $\{9, 10\}$
  - (B)  $\{1, 2, 3\}$
  - (C)  $\{1, 2, 3, 9\}$
  - (D)  $\{1, 2, 3, 9, 10\}$

2. If  $U = \{1, 2, 3, \dots, 20\}$  and  $S =$  set of prime numbers, then  $S =$
- (A)  $\{3, 5, 7, 11, 13, 17\}$
  - (B)  $\{2, 3, 5, 7, 11, 13, 17, 19\}$
  - (C)  $\{1, 3, 5, 7, 9, 11, 13, 15, 17, 19\}$
  - (D)  $\{1, 2, 3, 5, 7, 11, 13, 17\}$

3. In the Venn diagram opposite, the shaded portion represents
- (A)  $P \cup Q$
  - (B)  $P \cap Q'$
  - (C)  $P' \cap Q$
  - (D)  $P \cap Q$



4. In the figure opposite,  $U = \{a, b, c, d, e, f, g, h\}$ .
- $(X \cap Y) \cup Z =$
- (A)  $\{c, e, f, g, h\}$
  - (B)  $\{e, f, g\}$
  - (C)  $\{f\}$
  - (D)  $\{c, f, h\}$

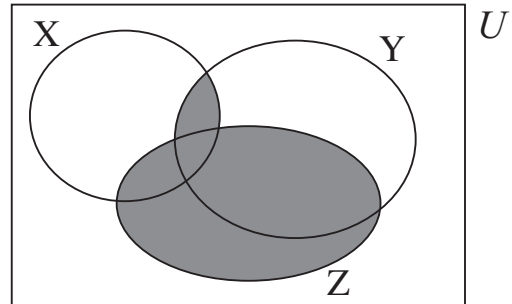


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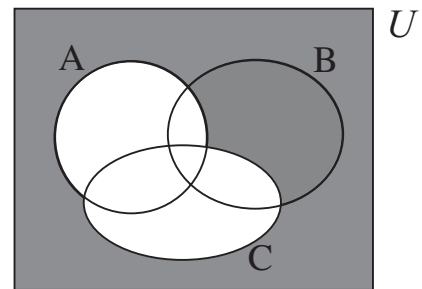
5. In the figure opposite, the shaded portion represents

- (A)  $(X \cap Z) \cup Y$
- (B)  $(X \cap Y) \cup Z$
- (C)  $(X \cup Y) \cap Z$
- (D)  $(Y \cap Z) \cup X$



6. In the figure opposite, the shaded portion represents

- (A)  $(A \cup C) \cap B$
- (B)  $B \cup (A \cap C)$
- (C)  $(A \cup C)'$
- (D)  $A' \cup C'$



**UNIT 10** *Logic and Venn  
Diagrams*

**CSEC Multiple Choice  
Questions** *ANSWERS*

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1. D
2. B
3. D
4. A
5. B
6. C