

SECTION A (10 MARKS)

Answer all questions in this section. Circle the answer of your choice

1. Given that $E = \{a, b, c, d, e, f, g, h, i, j, k\}$ and $A = \{b, c, d, e, f, g, h\}$, find $n(A)'$

A. 11

B. 7

C. 4

D. $\{a, i, j, k\}$

2. If $G = \{a, b, c, d, e\}$. How many subset has set G

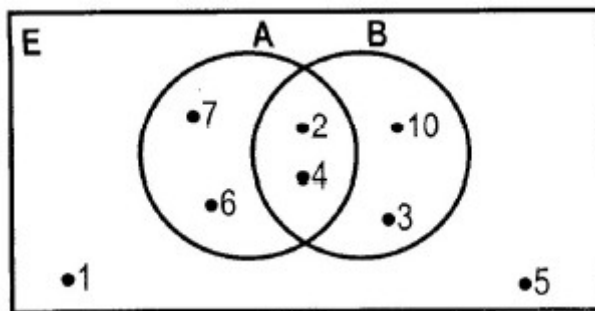
A. 5

B. $\{a, b, c, d, e\}$

C. 32

D. 10

3. The Venn diagram below shows the relationship between sets A and B



List set A

A. $\{1, 2, 4, 6, 7\}$

B. $\{2, 4, 6, 7\}$

C. $\{1, 6, 7\}$

D. $\{6, 7\}$

3. Evaluate $15 - (19 + 7)$

A. 11

B. 3

C. -3

D. -11

4. How many subsets are in set P, if $P = \{1, 2, 3\}$, using the formula 2^n

A. 3

B. 4

C. 6

D. 8

6. Evaluate $(-5) + (-3)$

A. -8 B. -2

C. 2

D. 8

7. Find the value of $10 - (-3)$

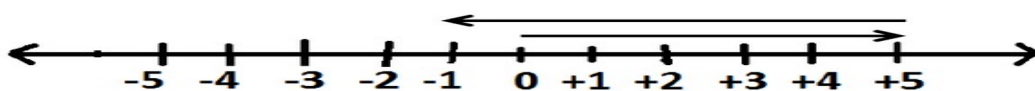
A. -13

B. -7

C. 7

D. 13

8. Look at the number line



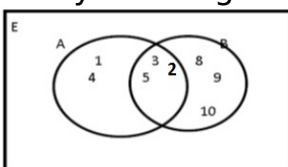
A. $+5 + (-6) = -1$

B. $+5 + (-1) = -4$

C. $(-1) + (+5) = +4$

D. $+5 + (+6)$

9. Study the diagram below, Find $A \cap B$



A. $\{1, 4, 7\}$

B. $\{8, 9, 10\}$

C. $\{2, 3, 5\}$

D.

$\{1, 2, 3, 4, 7, 8, 9, 10\}$

10. 9. Add $(-3) + (+2) + (-4)$

A. -9

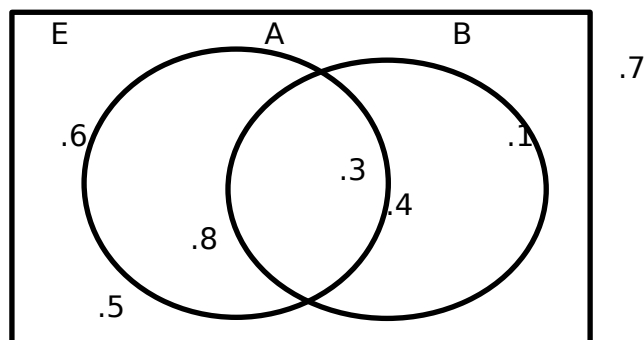
B. -5

C. +5

D. 5

SECTION B 30 marks (Answer all questions in this papers)

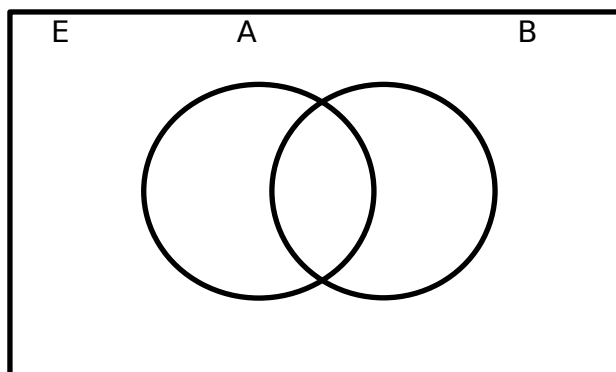
1. The diagram below shows sets A and B



List the set

- (i) $A \cup B$ _____ [2]
 (ii) $A \cap B$ _____ [2]
 (ii) A' _____ [3]
 $(A \cup B)'$ _____ [3]

2. Given that $E = \{1, 3, 4, 5, 6, 7, 9\}$, $A = \{1, 3, 5, 7, 9\}$ and $B = \{3, 6, 7\}$, enter this information on the venn diagram below



[3]

B (i) Find $n(A)$ _____

[1]

(ii) Find $A \cup B$ _____

[2]

3. Read the following set builder notation

i). $\{Y: Y \leq 10, X \in Z\}$

_____ [2]

ii). $\{P: X < 10, P \in W\}$

_____ [2]

iii). $\{x: 7 \leq x, x \notin P\}$

_____ [2]

4. Do the following calculation without using a calculator

(a). $21 + (-36)$

[2]

(b). $-13 \times (-4)$.

[2]

5. Workout the following on the number line

(i)

[2]

$(+5) - (+3)$

(ii) $(+6) - (+1)$

[2]