

Grade 4: NGN LOGIC OLYMPIAD 2023

Student Name: _____

Maximum Time: 90 minutes

Maximum Marks: 100

EXAM INSTRUCTIONS

- There are **33** questions in this paper.
 - Section A (Basic Level):** 2 Marks, 15 Questions
 - Section B (Moderate Level):** 3 Marks, 10 Questions
 - Section C (Difficult Level):** 5 Marks, 8 Questions
- No points will be deducted for each incorrect answer. Do not skip any questions. Use your logical reasoning skills to guess the answer.
- Types of Questions: **Section A:** Pick one correct answer. **Section B:** Pick all correct answers. **Section C:** Fill in the blanks and pick all correct answers.
- The questions in Sections B and C are based on questions related to social impact and global citizenship. The questions in Section B will focus on solving social issues logically. Section C will discuss international global problems that need rational solutions.
- Pencils, erasers, rulers, and rough paper for calculations are allowed.
- To mark your answer, darken the circle in the Answer sheet; use a Blue/Black Ball Point Pen only.
- For some questions in Sections B and C, mark your answer by filling in the bubbles. For Eg: 346.

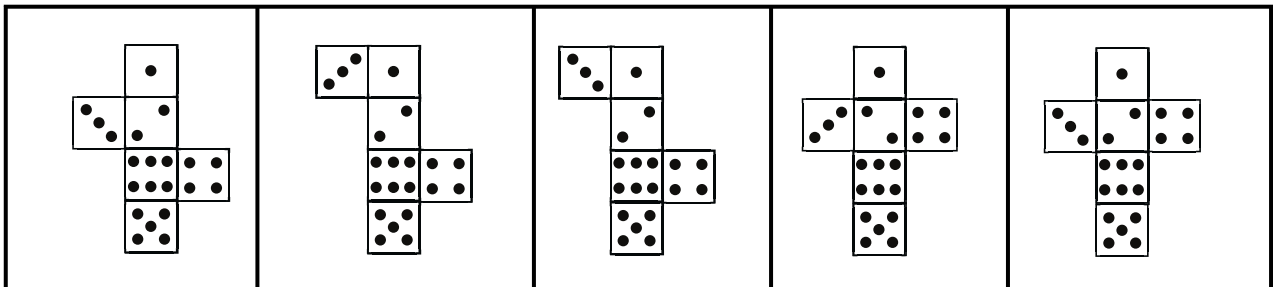
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0	1	2	3	<input checked="" type="radio"/>	5	6	7	8	9	Tens
0	1	2	<input checked="" type="radio"/>	4	5	6	7	8	9	Hundreds

NGNLearning.com/Logic-Olympiad

SECTION A: 2 MARKS EACH

1. Observe the given 3D cube. **Choose** the correct 2D unfolded version.

3D Cube →



(A)

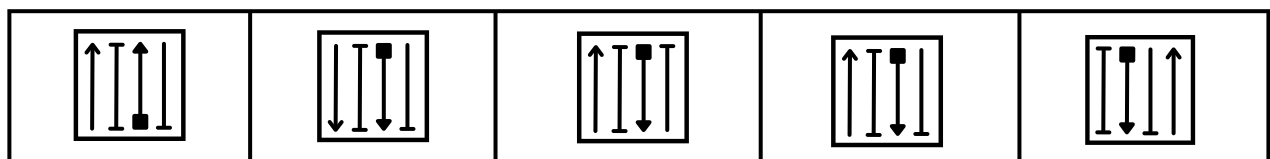
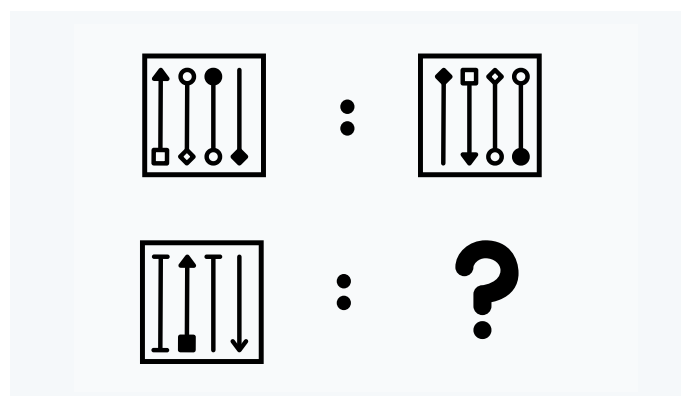
(B)

(C)

(D)

(E)

2. Which shape in the given options completes the second pair in the same way as the first pair? **Choose** the correct option.



(A)

(B)

(C)

(D)

(E)

SECTION A: 2 MARKS EACH

3. Read the question and the two statements given below.

Question: Is the smaller number odd?

Statement 1: The sum of an odd number and an even number is 15.

Statement 2: The product of the two numbers is between 55 and 60.

Choose the correct option in order to answer the question.

(A) Statement 1 ALONE is sufficient, but Statement 2 alone is insufficient.

(B) Statement 2 ALONE is sufficient, but Statement 1 alone is insufficient.

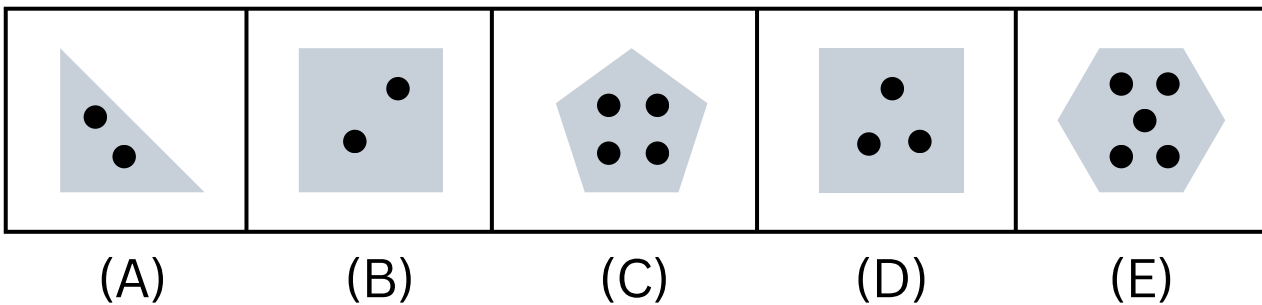
(C) Both statements together are sufficient.

(D) Each statement alone is sufficient.

(E) Neither statements alone nor together are sufficient.

SECTION A: 2 MARKS EACH

4. **Choose** a figure similar to the two figures given below.

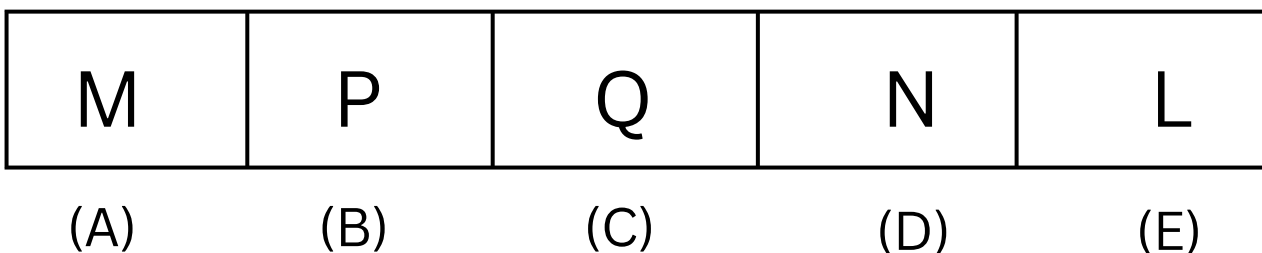


5. L, M, N, O, P, and Q are standing in a queue for tickets to a movie.

Clues:

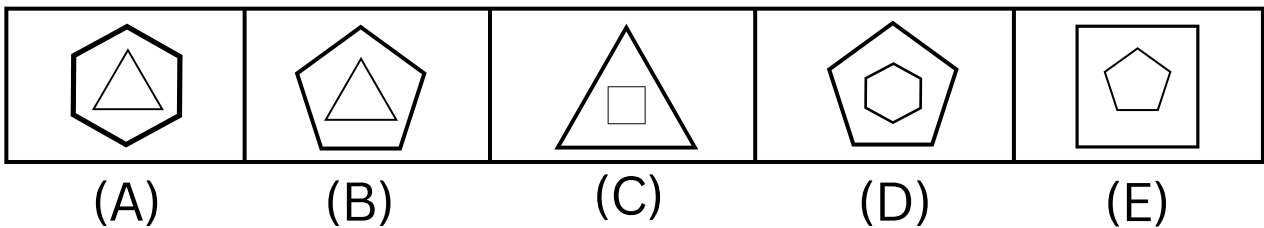
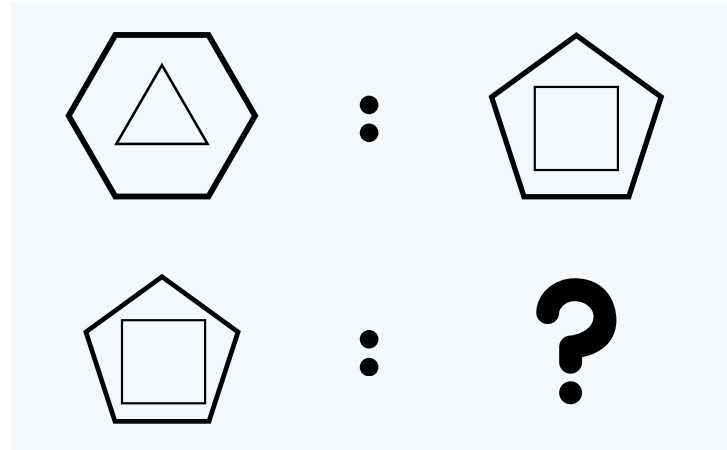
- M and Q are not standing next to each other.
- L and N are next to each other.
- O is at the end of the queue.
- P stands between M and O.

Who is first in line? **Choose** the correct answer.

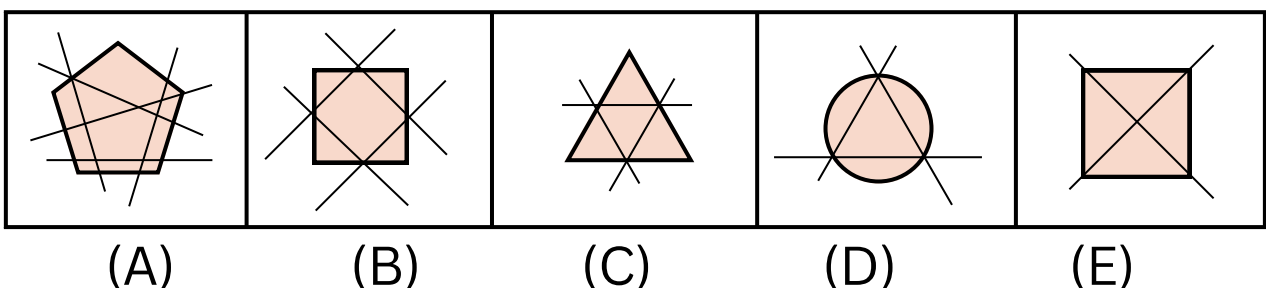
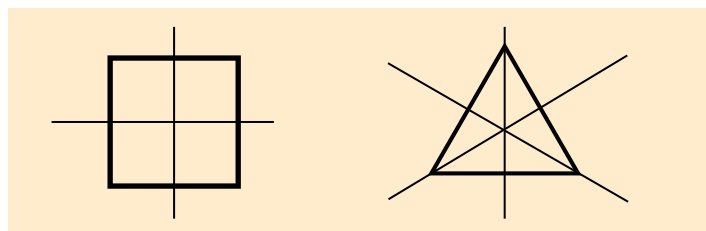


SECTION A: 2 MARKS EACH

6. Which shape in the given options completes the second pair in the same way as the first pair?
Choose the correct option.



7. **Choose** a shape that is similar to the given shapes.



SECTION A: 2 MARKS EACH

8. Order the four sentences given below to make a coherent paragraph. **Choose** the correct sequence from the options.

(1) The circular economy design also addresses issues such as traffic congestion.

(2) This includes reducing emissions of harmful substances, pollution, and waste.

(3) A circular economy aims to minimize negative impacts on human health and natural systems caused by economic activity.

(4) It utilizes bio-based materials by promoting multiple uses throughout their lifecycle in the economy and nature.

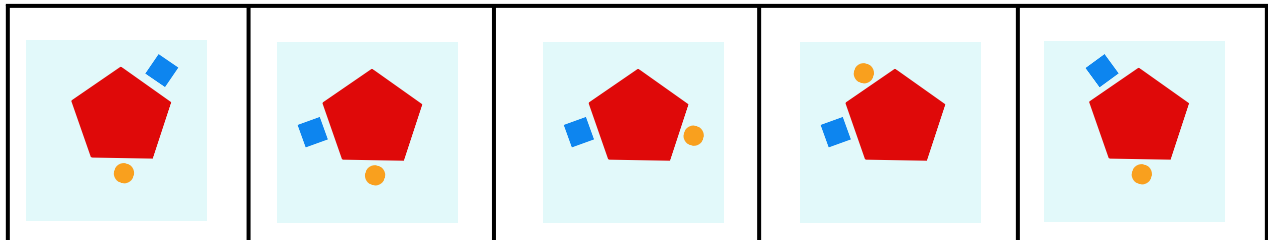
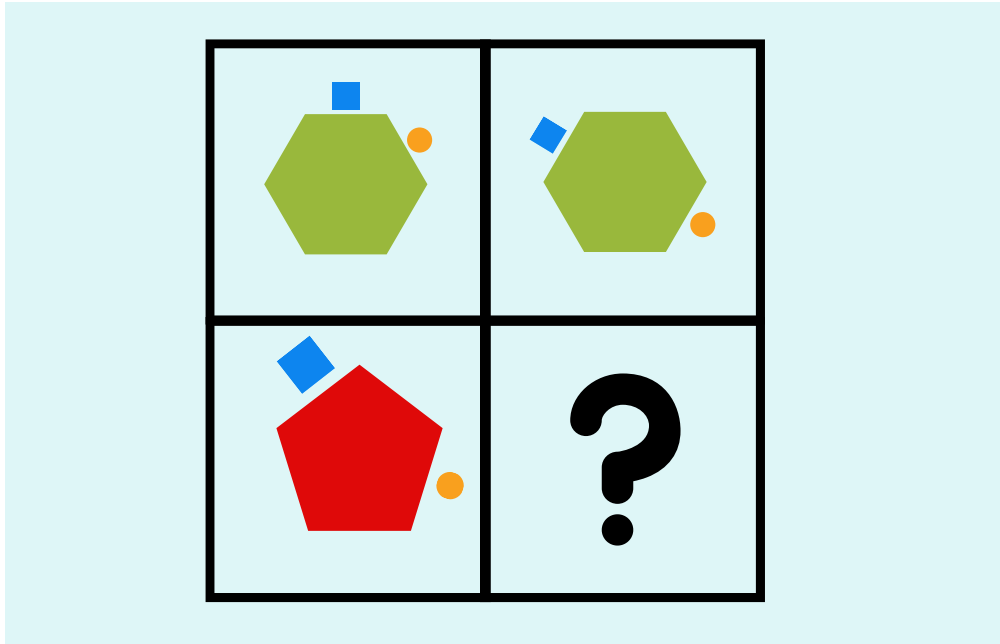
Credit: ELLEN MACARTHUR FOUNDATION, - archive.ellenmacarthurfoundation.org

(A) 1, 2, 3, 4	(B) 3, 4, 1, 2
(C) 3, 2, 4, 1	(D) 3, 4, 2, 1
(E) 3, 1, 4, 2	

SECTION A: 2 MARKS EACH

9. Which shape in the given options completes the matrix shown below?

Choose the correct option.



(A)

(B)

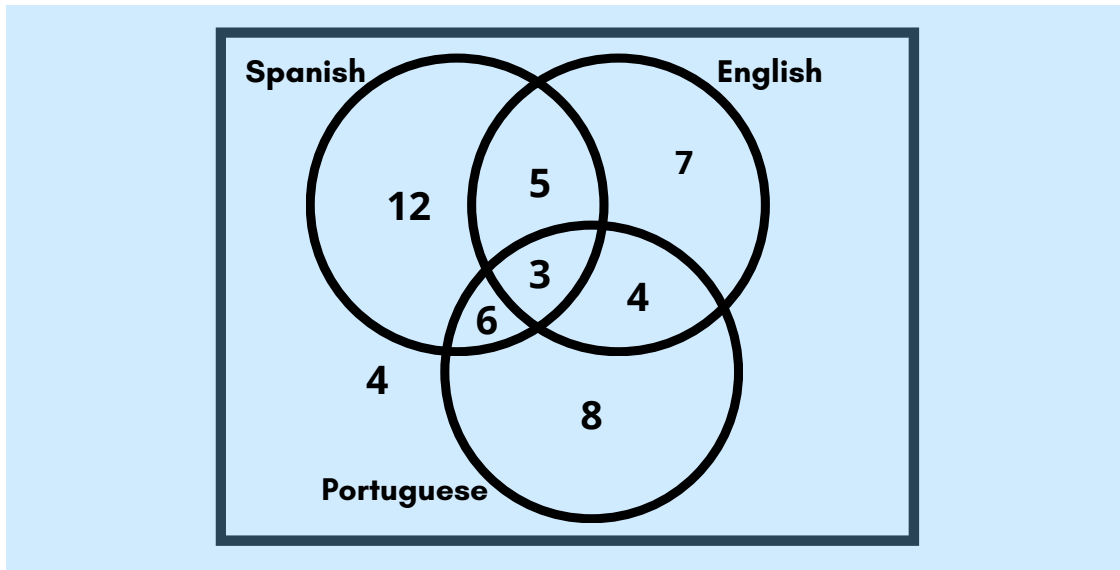
(C)

(D)

(E)

SECTION A: 2 MARKS EACH

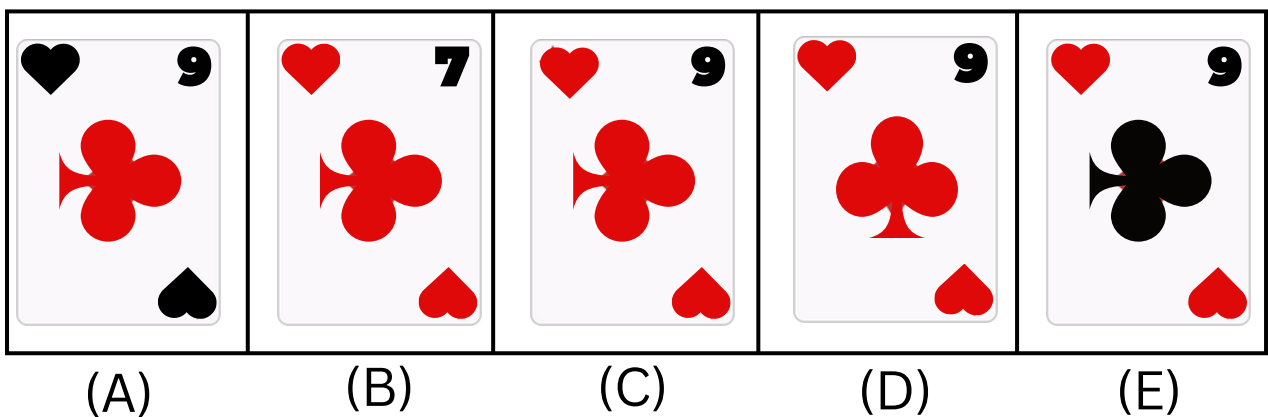
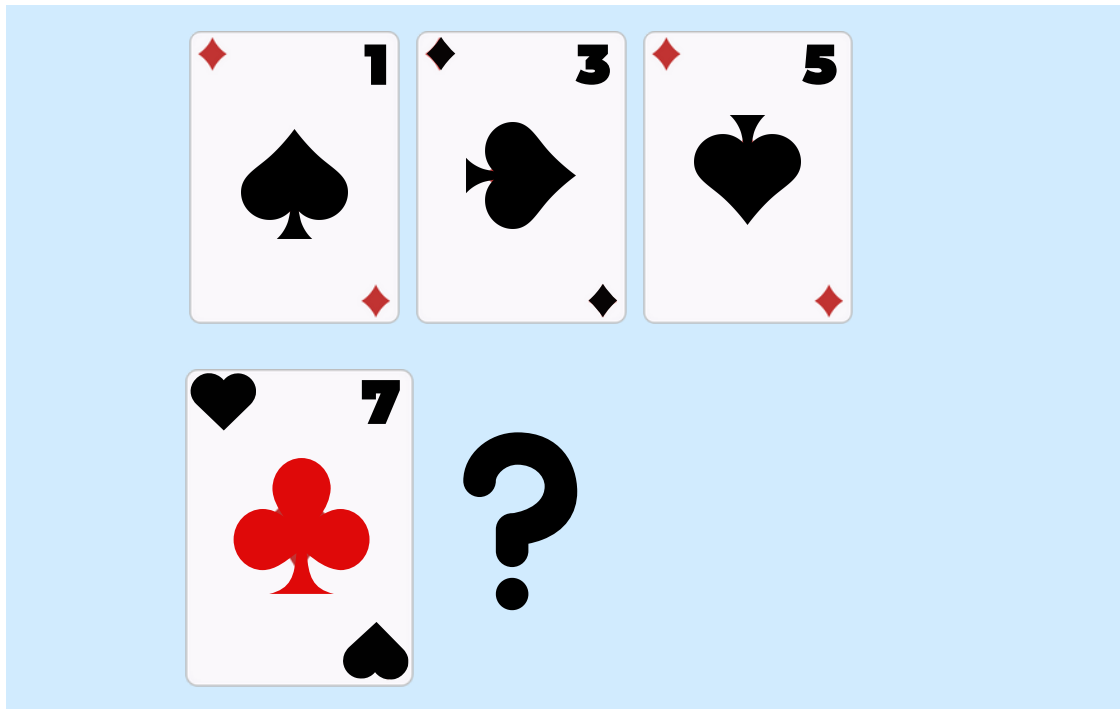
10. The Venn diagram below shows the languages spoken by a group of students. Find the number of students who speak at least two languages. **Choose** the correct option.



15	16	12	18	27
(A)	(B)	(C)	(D)	(E)

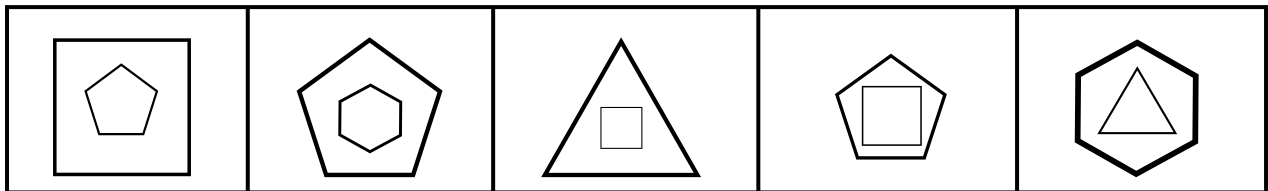
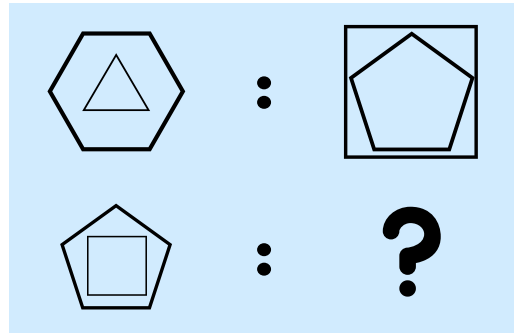
SECTION A: 2 MARKS EACH

11. The first three cards follow a certain pattern. **Choose** the card that will come after the given card if it follows the same pattern.



SECTION A: 2 MARKS EACH

12. Which shape in the given options completes the second pair in the same way as the first pair? **Choose** the correct option.



(A)

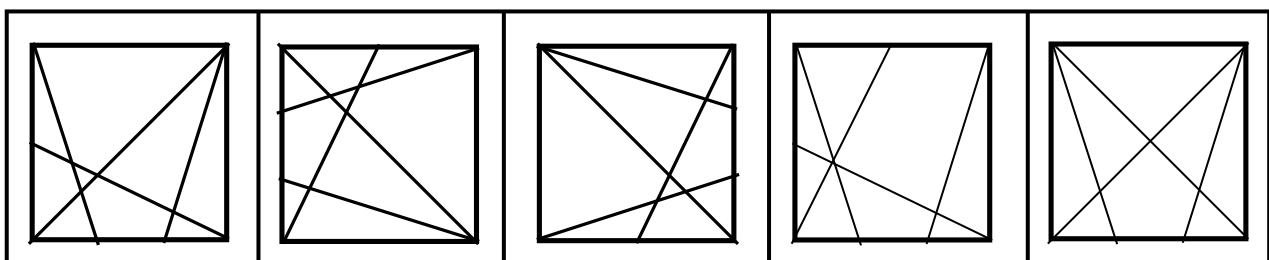
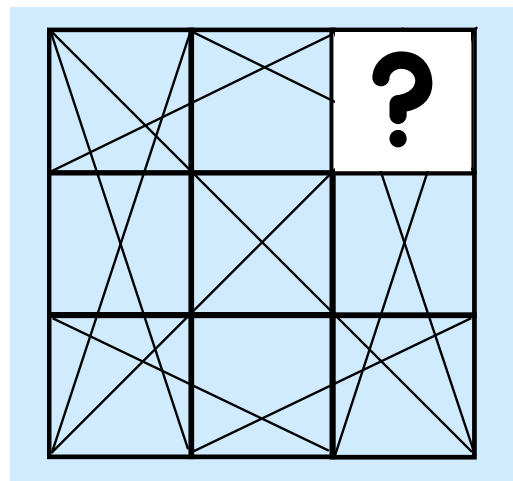
(B)

(C)

(D)

(E)

13. **Choose** one option to complete the series.



(A)

(B)

(C)

(D)

(E)

SECTION A: 2 MARKS EACH

14. Read the question and the two statements given below.

Question: Who is the tallest among A, B, and C?

Statement 1: A is taller than B but shorter than D.

Statement 2: C is shorter than D but not the shortest.

Choose the correct option in order to answer the question.

(A) Statement 1 ALONE is sufficient, but Statement 2 alone is insufficient.

(B) Statement 2 ALONE is sufficient, but Statement 1 alone is insufficient.

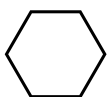
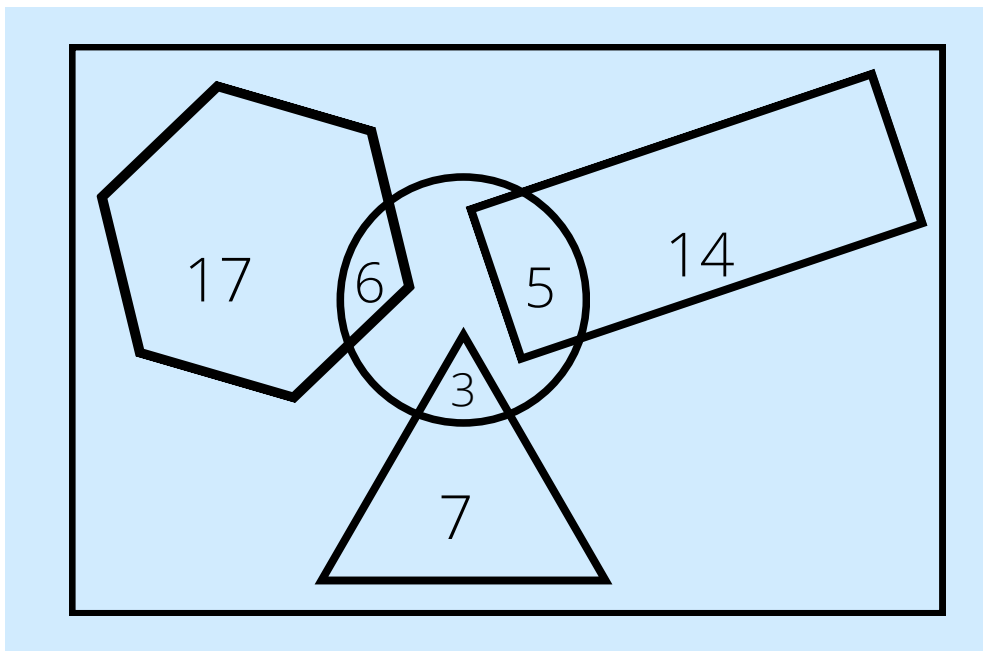
(C) Both statements together are sufficient.

(D) Each statement alone is sufficient.

(E) Neither statements alone nor together are sufficient.

SECTION A: 2 MARKS EACH

15. The following Venn diagram shows different age groups and their employment. Find the **number of people above the age of 30** who are not employed. **Choose** the correct option.



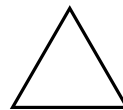
Age: 18 - 30



Age: 31 - 45



Employed



Age: 46 - 60

9

8

31

24

21

(A)

(B)

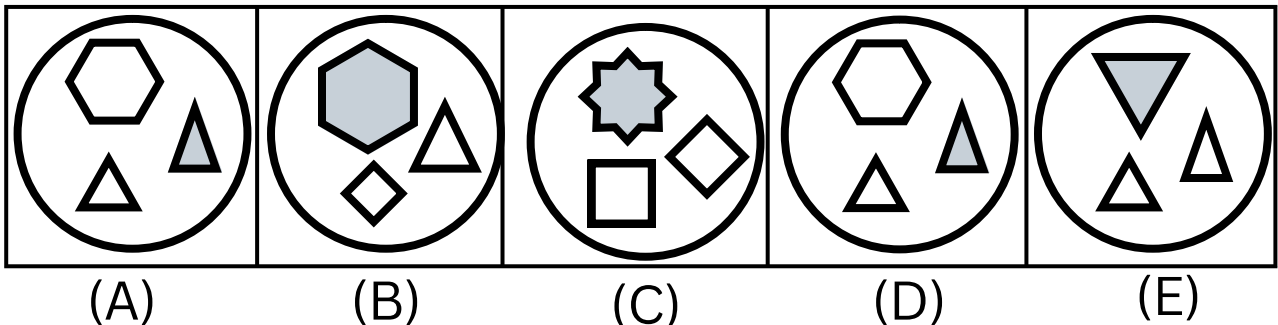
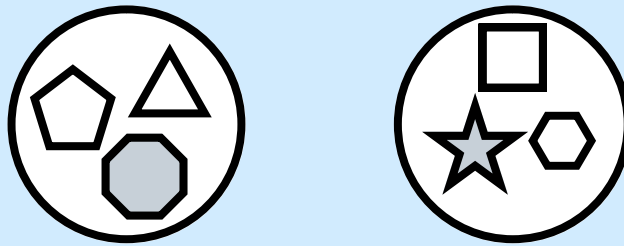
(C)

(D)

(E)

SECTION B: 3 MARKS EACH

16. In **2021**, In Seoul, South Korea, Kim started an affordable childcare center for young married families. In one of the classes, Kim teaches the kids to recognize shapes. Here is the question.
Choose a similar shape to those given below.



SECTION B: 3 MARKS EACH

17. **2022:** Angelo lives in Manila, Philippines, and deals with an energy crisis. Some citizens lacked access to electricity or could not afford it. Angelo is writing an essay about this energy crisis in Phillippines.

Choose the sentences that will **not** be part of his essay.

(A) *Due to climate change, natural disasters like tornadoes often hit the Philippines, destroying electricity lines.*

(B) *The direct impact of land degradation has been deterioration in food availability, soil fertility, protection of wood, and groundwater recharge.*

(C) *Due to the high demand for power during the human catastrophe, there were regular power outages and unplanned maintenance.*

(D) *The Philippines depended heavily on coal imports for power generation. Since the price of coal imports increased, the cost of electricity increased.*

(E) *Due to high-tech agricultural companies taking over their land, small-scale farmers lost their jobs.*

Credit: BORGEN PROJECT, borgenproject.org

SECTION B: 3 MARKS EACH

18. **2022:** Amara is from Windhoek, Namibia, making posters to raise awareness about air pollution in Africa. Air pollution can cause different respiratory disorders in humans. Here are some statements she wrote about air pollution in Africa.

Credit: NGN Research

Statement 1: Children are more likely to suffer from respiratory ailments.

Statement 2: The presence of hazardous waste facilities causes air pollution in Africa.

Statement 3: Poverty makes it hard for disadvantaged people to afford health care.

Choose the options that are **not true** from the following.

(A) Statement 1 is the cause, and Statement 2 is its effect.

(B) Statement 2 is the cause, and Statement 1 is its effect.

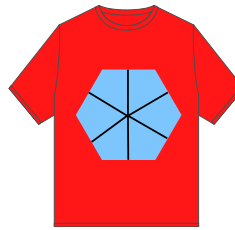
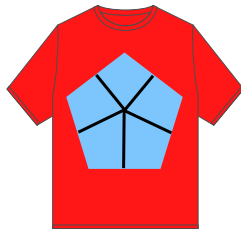
(C) Statement 3 is the cause, and Statement 1 is its effect.

(D) Statement 2 is the cause, and Statement 3 is its effect.

(E) All the statements are independent causes.

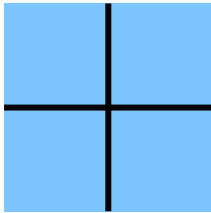
SECTION B: 3 MARKS EACH

19. **2021:** Moreno lives in Merida, Venezuela. His country is facing poverty due to corruption. Poverty leads to hunger, a lack of good healthcare, and access to clothing and shelter. He designs shirts that follow a certain pattern to be distributed among the underprivileged.

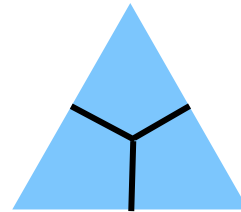


Choose a design that is similar to the one Moreno designed.

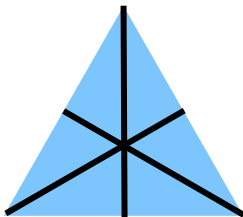
Credit: REUTERS, reuters.com



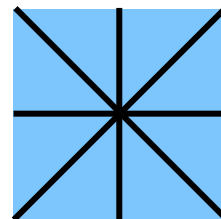
(A)



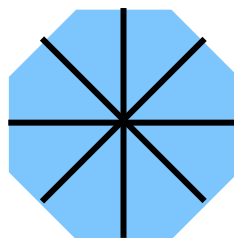
(B)



(C)



(D)



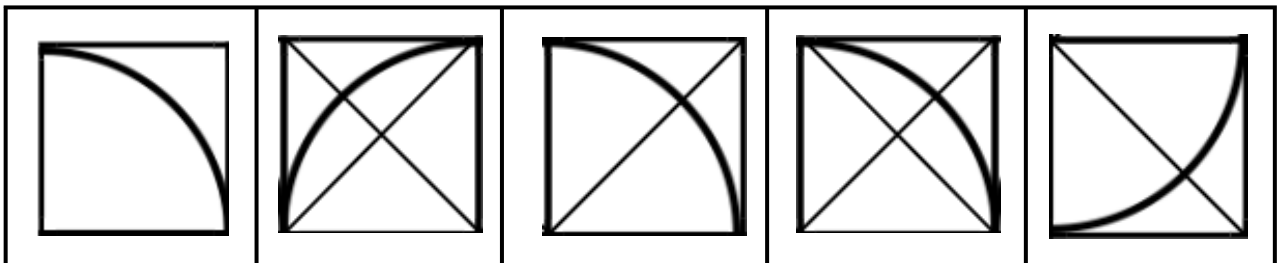
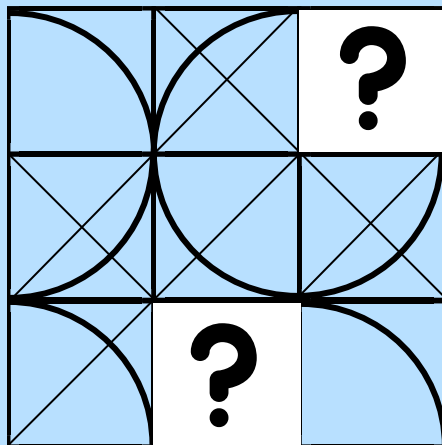
(E)

SECTION B: 3 MARKS EACH

20. **2022:** Several companies in the fashion industry are known for their significant adverse environmental impact contributing to waste production. Environmental waste includes water and chemical wastes from textile production and high energy usage in production, transportation, and recycling. So, Jamies creates a design on recycled cloth, but some parts are missing.

Choose all the figures that will fill in the missing parts.

Credit: NGN Research



(A)

(B)

(C)

(D)

(E)

SECTION B: 3 MARKS EACH

21. In **2022**, Pakistan experienced the devastating effects of an untimely flood that affected millions. Ajmal reads a news article about floods in Karachi, Pakistan. Unfortunately, the sentences are jumbled.

Choose the correct order of the sentences to form a coherent paragraph.

(1) Unprecedented floods have been reported in many parts of Pakistan due to climate change.

(2) Before, temperatures rose to 40 degrees Celsius due to extreme heat.

(3) As a result of these high temperatures, glaciers in the nearby mountains melted.

(4) Summers can be wet due to short intervals of rainfall, but Pakistan's residents haven't experienced continuous rainfall for two months.

Credit: NGN Research

2, 3, 4, 1	4, 1, 2, 3	1, 4, 2, 3	1, 2, 4, 3	4, 2, 3, 1
(A)	(B)	(C)	(D)	(E)

SECTION B: 3 MARKS EACH

22-23. **2022:** As the world's population grows, some countries will likely become overpopulated and suffer from extreme poverty. Rawad, Beatrice, Cole, Dawn, Ellen, Farida, Ganga, Harsh, and Kyle are seated in a straight line to see a presentation to further learn about this issue. They all are facing the north direction. Here are some clues about their seating arrangement:

Credit: NGN Research

1. Farida is the immediate right to Rawad.
2. Cole is the immediate right of Dawn.
3. Harsh is seated adjacent to both Farida and Ganga.
4. Farida is sitting third to the left of Beatrice.

22. If Beatrice is not sitting at the end, **choose all** the persons seated at the end.

Kyle	Rawad	Farida	Dawn	Cole
(A)	(B)	(C)	(D)	(E)

SECTION B: 3 MARKS EACH

1. Farida is the immediate right to Rawad.
2. Cole is the immediate right of Dawn.
3. Harsh is seated adjacent to both Farida and Ganga.
4. Farida is sitting third to the left of Beatrice.

22. If Beatrice is not sitting at the end, **choose all** the persons seated at the end.

Ganga	Farida	Beatrice	Dawn	Cole
(A)	(B)	(C)	(D)	(E)

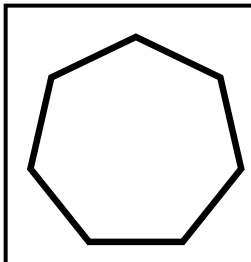
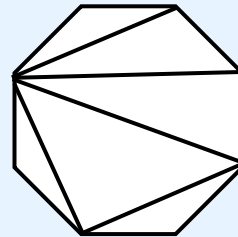
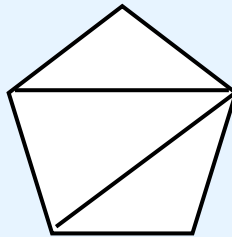
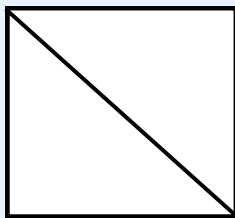


SECTION B: 3 MARKS EACH

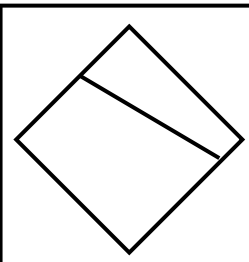
24. **2022:** In Hungary, many women with young children were not treated equally and fairly during the Covid-19 pandemic. Andrea opens a nursery to assist working mothers. In a box, she arranges similar shapes and gives them to mothers. **Choose all** the figures that are similar to the shapes in the box.

Credit: NGN Research

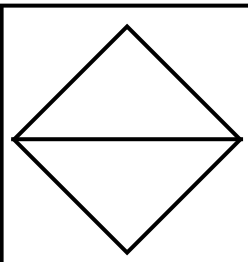
BOX



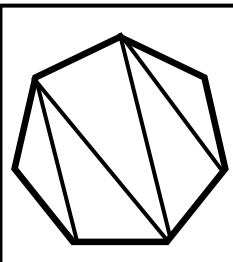
(A)



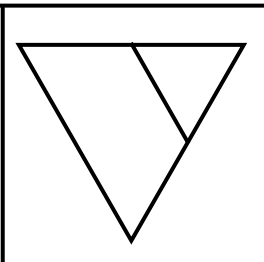
(B)



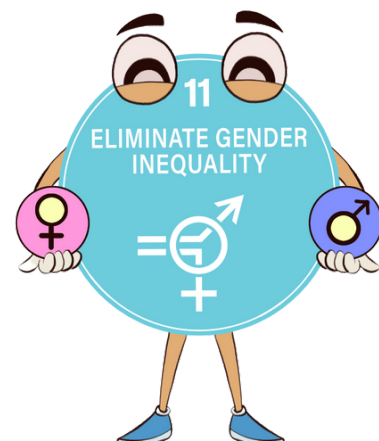
(C)



(D)



(E)



SECTION B: 3 MARKS EACH

25. **2021:** Aileen is submitting a paper on the effects of land degradation in Panama. Living in Panama, she knows the harmful effects of land degradation, like the increased CO₂ in the air. Here are some statements from her paper about land degradation.

Credit: World Economic Forum, - weforum.org

Statement 1: The increase in population has resulted in a decrease in forest cover.

Statement 2: Land degradation affects groundwater recharge, soil fertility, and food availability.

Statement 3: Panama's indigenous population may also be affected by the expansion of land degradation.

Choose the correct option(s) from the following.

(A) Statement 2 is the cause, and statement 3 is the effect.

(B) Statement 2 is the cause, and statement 1 is the effect.

(C) Statement 1 is the cause, and statement 2 is the effect.

(D) Statement 1 is the cause, and statement 3 is the effect.

(E) All statements are the causes.

SECTION C: 5 MARKS EACH

26-29. **2022:** Unemployment among youth was a major cause of concern globally. The strength of the economy was one factor that determined unemployment. Labor market rigidities and wage structures also caused youth unemployment. Unemployment causes social anxiety, isolation, and depression among youth. Sharing knowledge and opportunities among youth through local and international platforms can reduce unemployment. Employment can be improved by developing mentorship between experienced individuals or groups and youth to transfer knowledge and job opportunities.

Credit: NGN Research



SECTION C: 5 MARKS EACH

26. **Choose all** the options that are the causes of global youth unemployment.

(A) Rise in prices of goods and services.

(B) Mental health issues among youth.

(C) Labour market rigidities

(D) Wage structures

(E) Weak economy

27. **Choose** the option(s) that are the impacts of global youth unemployment.

(A) Rise in prices of goods and services

(B) Mental health issues among youth.

(C) Strong economy

(D) Corruption in the government

(E) Increase in population

SECTION C: 5 MARKS EACH

28. **Choose all** the options that are the solutions to tackle global youth unemployment.

(A) Mentoring the youth.

(B) Increasing job qualification requirements

(C) Promoting platforms that share knowledge and opportunities.

(D) Promoting local businesses

(E) Raising the prices of goods and services.

SECTION C: 5 MARKS EACH

29. Here are some statements regarding global unemployment among youth:

Statement 1: Unemployment increases as a result of a lack of skill sets among youth.

Statement 2: Lack of experienced individuals in the tech industry to mentor the youth.

Statement 3: Economic growth and development are affected in many countries.

Choose the correct option(s) from the following.

(A) Statement 2 is the cause, and statement 3 is the effect.

(B) Statement 1 is the cause, and statement 3 is the effect.

(C) Statement 1 is the cause, and statement 2 is the effect.

(D) Statement 2 is the cause, and statement 1 and 3 is the effect.

(E) All statements are the causes.



SECTION C: 5 MARKS EACH

30-33. **2022:** Approximately 2 million people in Peru did not have access to a reliable source of clean water, and millions lacked access to improved sanitation. In addition, the country's diverse geography posed challenges, as urban areas with rapidly growing populations, including slums, often lacked safe piped water.

Alfredo is a schoolteacher from Peru. He is teaching his students about water conservation and its importance. As part of a class exercise, he seats 26 students - A, B, C,... X, Y, and Z. He numbered 26 seats from 1-26 and arranged them into 2 rows of 13 facing each other such that the 'A' is sitting on 1, 'B' is on 2 and so on.

Credits: water.org, <https://water.org>



SECTION C: 5 MARKS EACH

30. What is the seat number of the person sitting opposite J? **Choose** the correct number.

0	1	2	3	4	5	6	7	8	9	Ones
0	1	2	3	4	5	6	7	8	9	Tens
0	1	2	3	4	5	6	7	8	9	Hundreds

31. If everyone switches places with their neighbors, i.e., A with B, C with D, and so on, What is the person's seat number opposite to N?
Choose the correct number.

0	1	2	3	4	5	6	7	8	9	Ones
0	1	2	3	4	5	6	7	8	9	Tens
0	1	2	3	4	5	6	7	8	9	Hundreds



SECTION C: 5 MARKS EACH

32. In question 31, how many seats are between N and D? **Choose** the correct number.

0	1	2	3	4	5	6	7	8	9	Ones
0	1	2	3	4	5	6	7	8	9	Tens
0	1	2	3	4	5	6	7	8	9	Hundreds

33. If in one exercise, A sits in B's seat, B sits in C's seat, and so on, Z sits in A's seat. How often will they repeat this exercise so that O is not sitting next to N for the first time?

Choose the correct number.

0	1	2	3	4	5	6	7	8	9	Ones
0	1	2	3	4	5	6	7	8	9	Tens
0	1	2	3	4	5	6	7	8	9	Hundreds



ANSWER KEY

Preparatory Classes Available

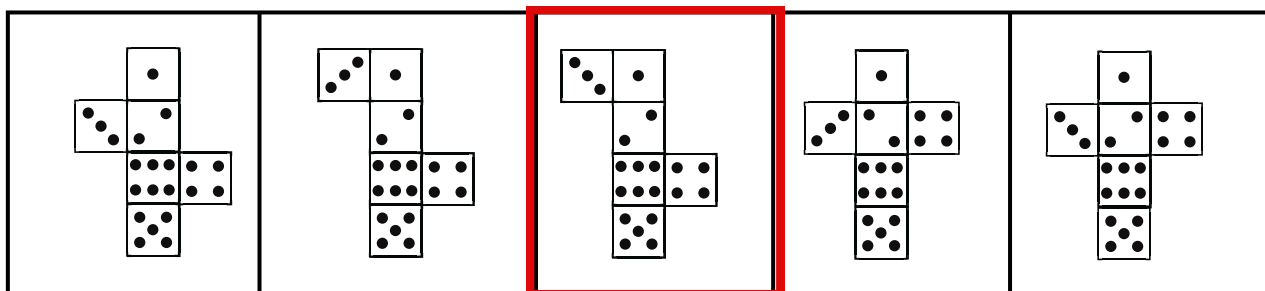
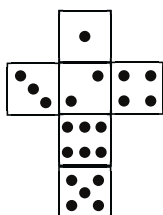
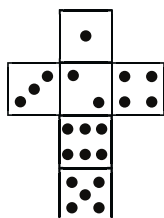
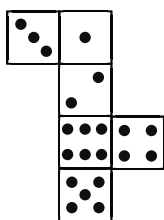
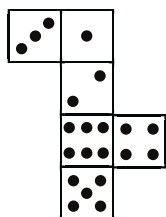
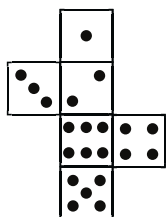
Step-Wise Solution Available

NGNLearning.com/Logic-Olympiad

SECTION A: ANSWER KEY

1. (C)

Step 1:



(A)

(B)

(C)

(D)

(E)

SECTION A: ANSWER KEY

2. (D)

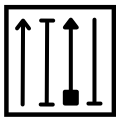
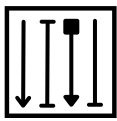
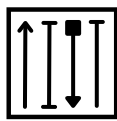
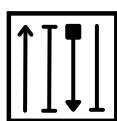
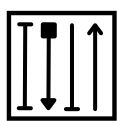
Step 1: Observe that there are four figures in each box.

Step 2: The 1st figure flips vertically and moves to 2nd position.

Step 3: The 2nd figure flips vertically and moves to the 3rd position.

Step 4: The 3rd figure flips vertically and moves to the 4th position.

Step 5: The 4th figure flips vertically and moves to the 1st position.

				
(A)	(B)	(C)	(D)	(E)

SECTION A: ANSWER KEY

3. (C)

Step 1: 15 can be represented as $(1 + 14)$, $(2 + 13)$, $(3 + 12)$, $(4 + 11)$, $(5 + 10)$, $(6 + 9)$, and $(7 + 8)$.

Step 2: The product of these numbers will be 14, 26, 36, 44, 50, 54, and 56, respectively.

Step 3: The only possible numbers will be 7 and 8.

Step 4: The smaller number is odd.

Step 5: Therefore, two statements are sufficient for the question.

(A) Statement 1 ALONE is sufficient, but Statement 2 alone is insufficient.

B) Statement 2 ALONE is sufficient, but Statement 1 alone is insufficient.

(C) Both statements together are sufficient.

(D) Each statement alone is sufficient.

(E) Neither statements alone nor together are sufficient.

SECTION A: ANSWER KEY

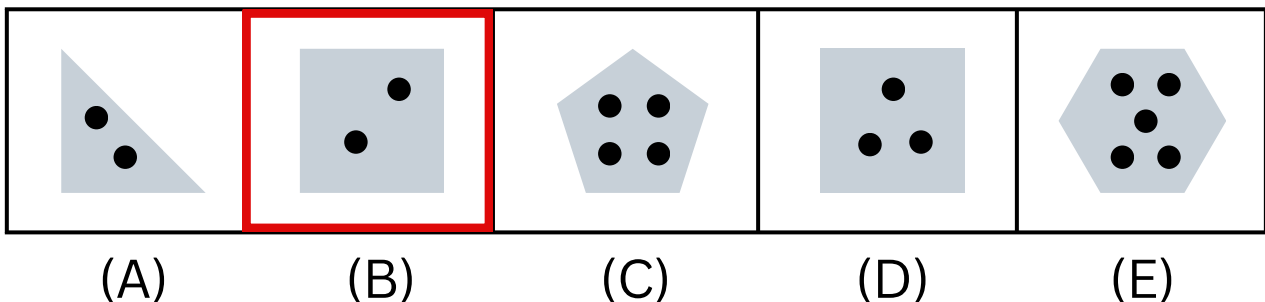
4. (B)

Step 1: In the first figure, the number of sides of the polygon is 6, and the number of dots inside is 4.

Step 2: In the second figure, the number of sides of the polygon is 5, and the number of dots inside is 3.

Step 3: The number of sides of the polygon must be 2 greater than the number of dots inside.

Step 4: In option (B), the number of sides of the polygon is 4, and the number of dots inside is 2.



SECTION A: ANSWER KEY

5. (C)

Step 1: O is at the end of the line.

— — — — — O

Step 2: P stands between M and O

— — — M P O

Step 3: M and Q are not standing next to each other, which means Q is either in first or second place.

— Q — M P O

Q — — M P O

Step 4: If Q is second, L and N would not stand next to each other, which means Q must be first in line.

— Q — M P O ✗

Q — — M P O ✓

M	P	Q	N	L
(A)	(B)	(C)	(D)	(E)

SECTION A: ANSWER KEY

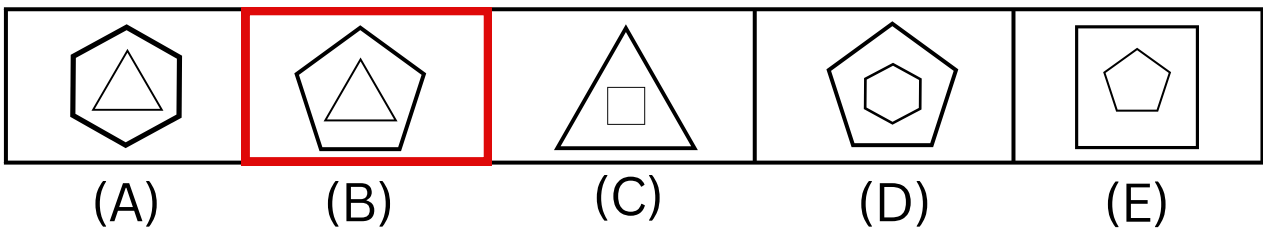
6. (B)

Step 1: The polygon outside reduces its side by 1.

Step 2: The inner polygon increases its side by 1.

Step 3: The outside pentagon changes to a square.

Step 4: The inner square changes to a pentagon.

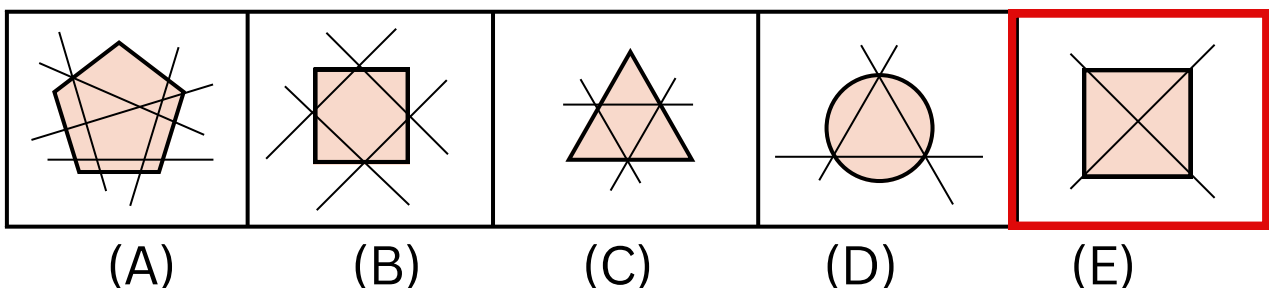


7. (E)

Step 1: For the first figure, all the lines cut the square into two equal symmetrical halves

Step 2: For the second figure, all three lines cut the triangle into two symmetrical halves.

Step 3: Similarly, in option (E), all the lines cut the square into two equal halves



SECTION A: ANSWER KEY

8. (D)

Step 1: Sentence 3 is an introduction to the concept discussed in the paragraph.

Step 2: Sentence 1 explains the concept.

Step 3: Sentence 2 expands on the concept.

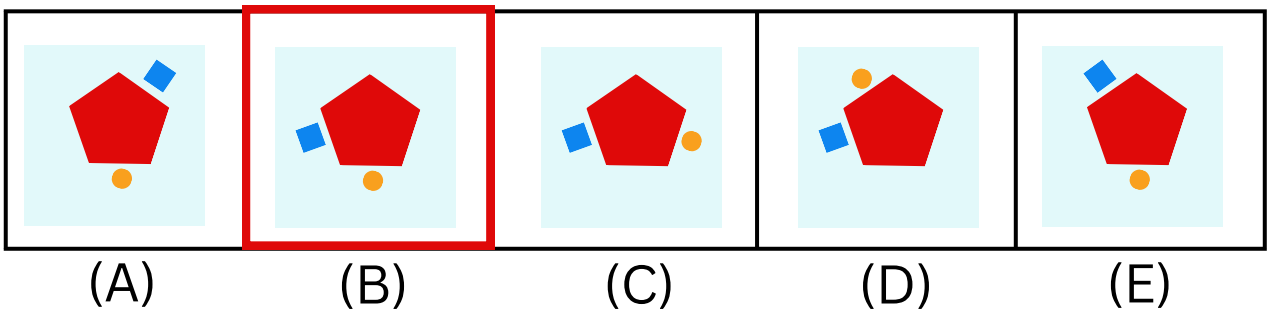
Step 4: Sentence 4 explains extra things included in the concept.

(A) 1, 2, 3, 4	(B) 3, 4, 1, 2
(C) 3, 2, 4, 1	(D) 3, 4, 2, 1
(E) 3, 1, 4, 2	

9. (B)

Step 1: In the case of the hexagon, the circle moves in the clockwise direction by one side, and the square moves anticlockwise by one side

Step 2: In the case of the pentagon, the circle moves in the clockwise direction by one side, and the square moves anticlockwise by one side.



SECTION A: ANSWER KEY

10. (D)

Step 1: The number of students who speak just English and Spanish is 5

Step 2: The number of students who speak just Spanish and Portuguese is 6

Step 3: The number of students who speak just Portuguese and English is 4

Step 4: The number of students who speaks all three languages is 3

Step 5: $5 + 6 + 4 + 3 = 18$

15	16	12	18	27
(A)	(B)	(C)	(D)	(E)

SECTION A: ANSWER KEY

11. (C)

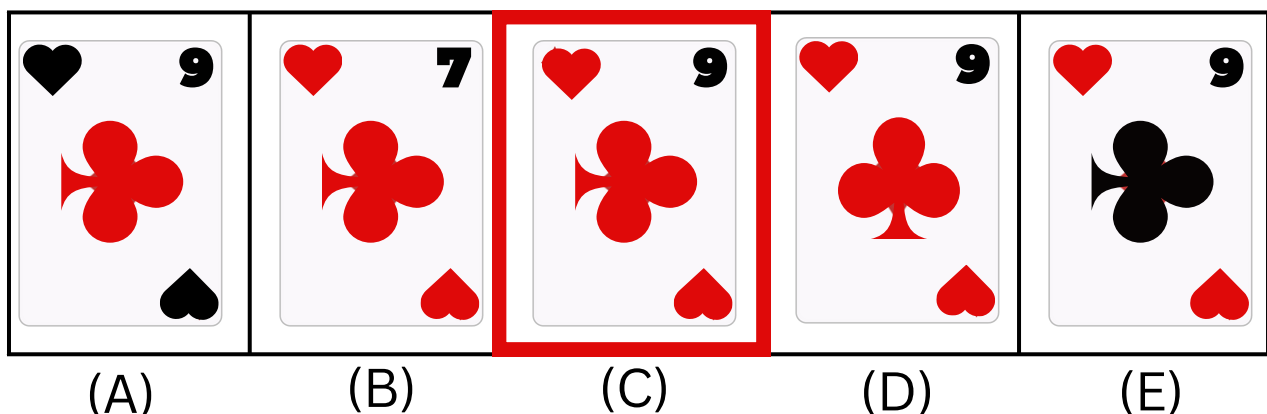
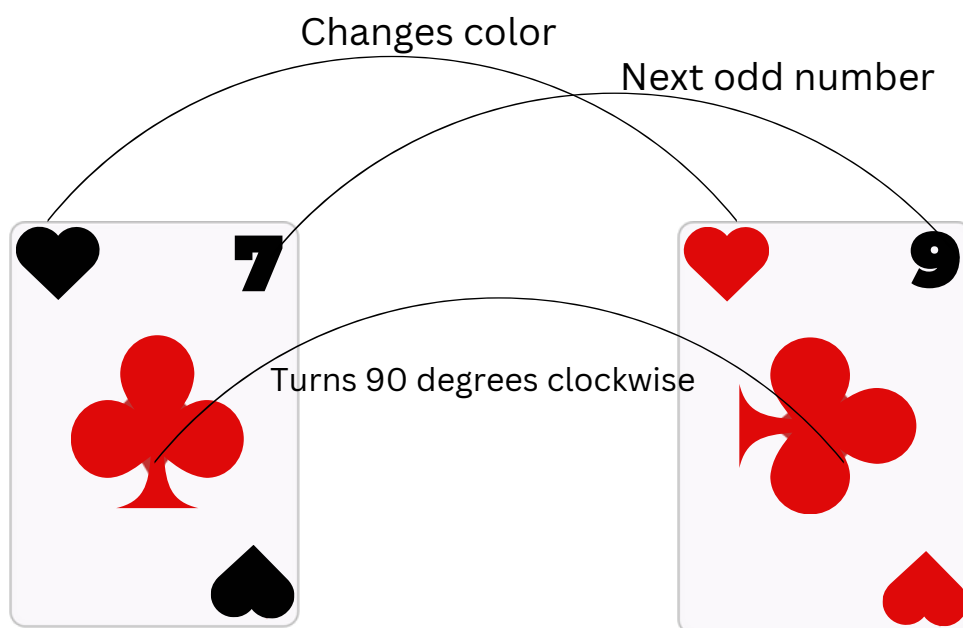
Step 1:

The central figure in the card turns 90 degrees in the clockwise direction every time.

Step 2: The corner figures in the card change their color every time

Step 3: The number on the card consecutive odd numbers. i.e., 1, 3, 5

Step 4: Observing option (C)



SECTION A: ANSWER KEY

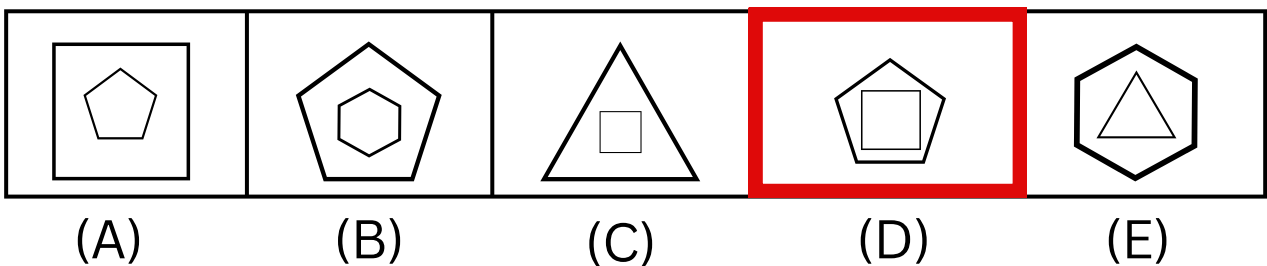
12. (D)

Step 1: The polygon outside reduces its side by 1 and becomes the inside polygon

Step 2: The inner polygon increases its side by 1 and becomes the outside polygon

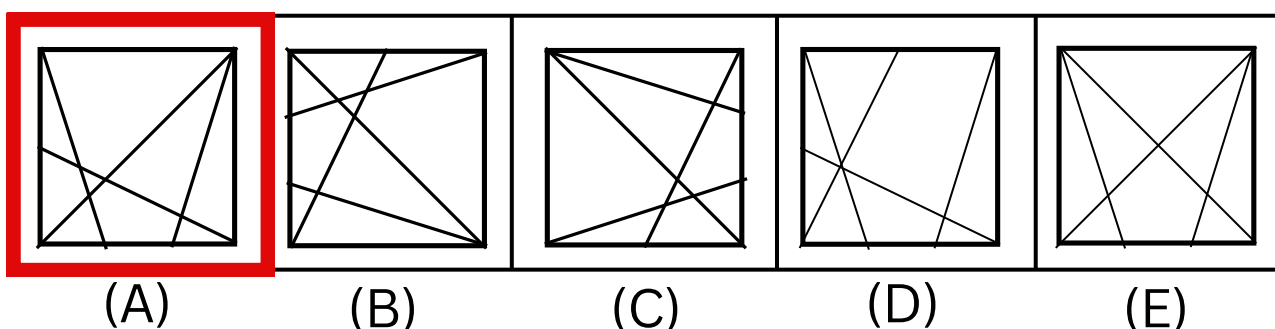
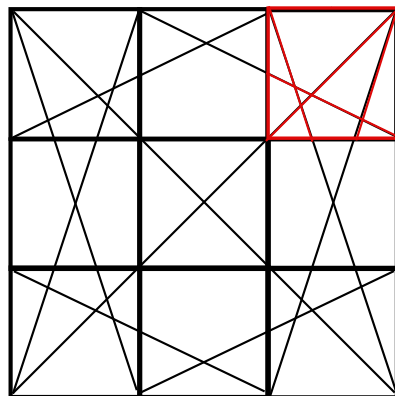
Step 3: The outside pentagon changes to a square and becomes the inside polygon.

Step 4: The inner square changes to a pentagon and becomes the outside polygon.



13. (A)

Step 1:



SECTION A: ANSWER KEY

14. (D)

Step 1: Statement 1 will give $D > A > B$.

Step 2: Statement 2 will give $D > C$.

Step 3: Combining these statements, we will get two cases: (1) $D > C > A > B$, (2) $D > A > C > B$.

Step 4: Two statements will not be sufficient.

(A) Statement 1 ALONE is sufficient, but Statement 2 alone is insufficient.

B) Statement 2 ALONE is sufficient, but Statement 1 alone is insufficient.

(C) Both statements together are sufficient.

(D) Each statement alone is sufficient.

(E) Neither statements alone nor together are sufficient.

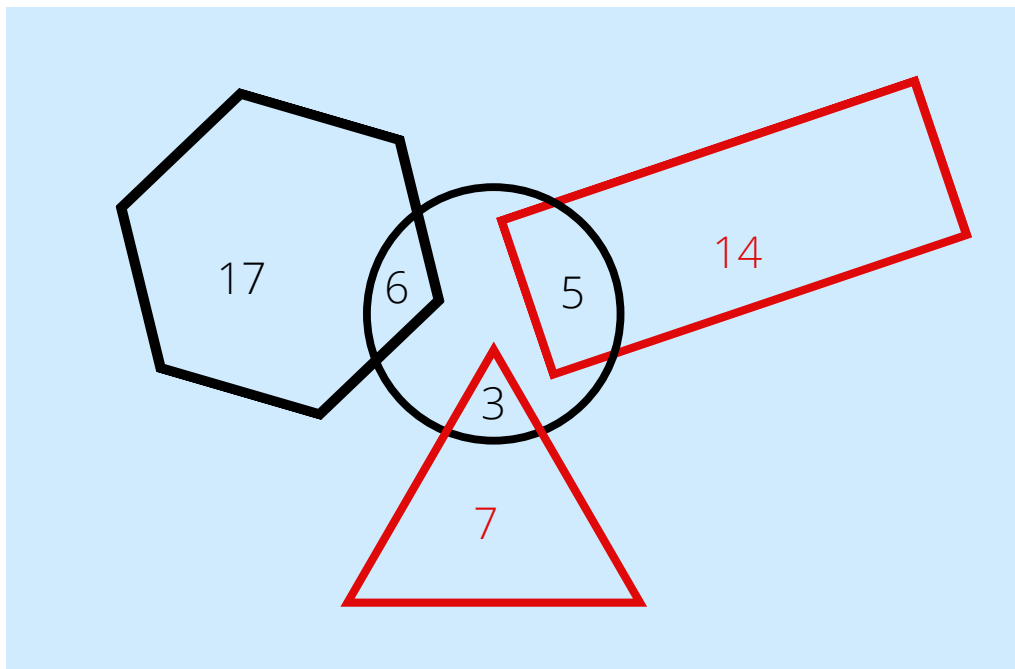
SECTION A: ANSWER KEY

15. (E)

Step 1: The triangle and the rectangle represent step 1: The people above 30.

Step 2: The part of the triangle and rectangle that does not coincide with the circle represents the unemployed people.

Step 3: Therefore, adding the number of people on these parts should give us the answer
 .i.e , $7 + 14 = 21$.



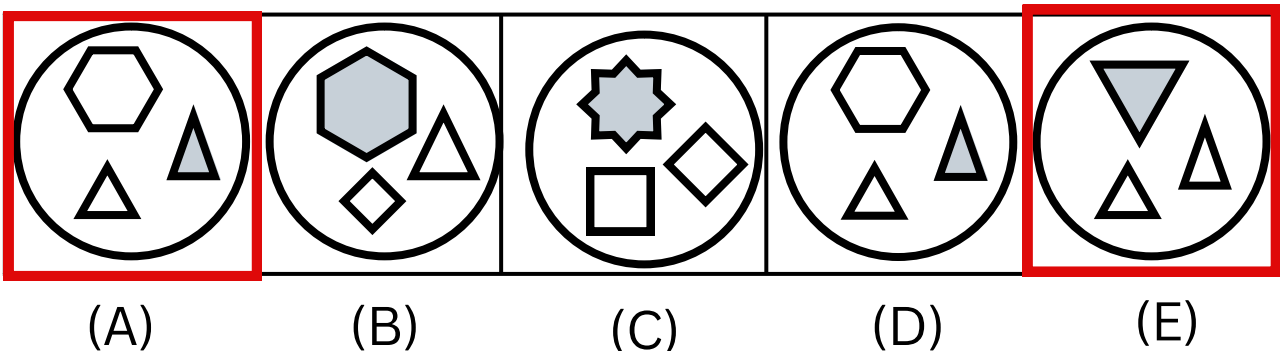
9	8	31	24	21
(A)	(B)	(C)	(D)	(E)

SECTION B: ANSWER KEY

16. (A), (E)

Step 1: The number of yellow seashells is always 1 greater than the number of blue seashells.

Step 2: The number of red seashells is always 1 greater than the number of green seashells.



17. (B), (E)

Step 1: (B) and (E) are not about the energy crisis.

(A) *Due to climate change, natural disasters like tornadoes often hit the Philippines, destroying electricity lines.*

(B) *The direct impact of land degradation has been deterioration in food availability, soil fertility, protection of wood, and groundwater recharge.*

(C) *Due to the high demand for power during the human catastrophe, there were regular power outages and unplanned maintenance.*

(D) *The Philippines depended heavily on coal imports for power generation. Since the price of coal imports increased, the cost of electricity increased.*

(E) *Due to high-tech agricultural companies taking over their land, small-scale farmers lost their jobs.*

SECTION B: ANSWER KEY

18. (A), (C), (D),(E)

Step 1: Statement 2 is the cause, and Statement 1 is its effect.

(A) Statement 1 is the cause, and Statement 2 is its effect.

(B) Statement 2 is the cause, and Statement 1 is its effect.

(C) Statement 3 is the cause, and Statement 1 is its effect.

(D) Statement 2 is the cause, and Statement 3 is its effect.

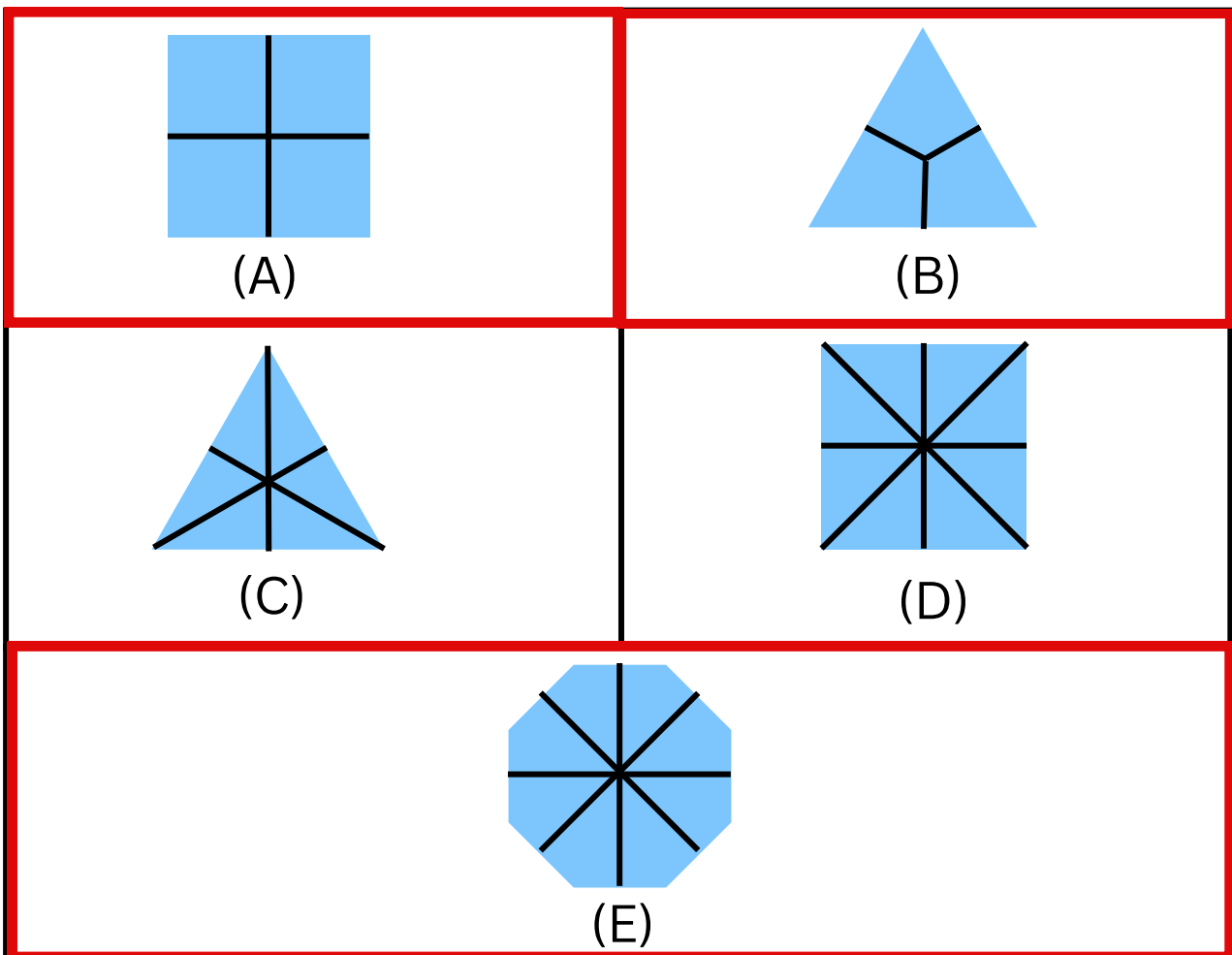
(E) All the statements are independent causes.

SECTION B: ANSWER KEY

19. (A), (B), (E)

Step 1: The rule is that all the lines start at the center of the polygon and end at the center of the sides.

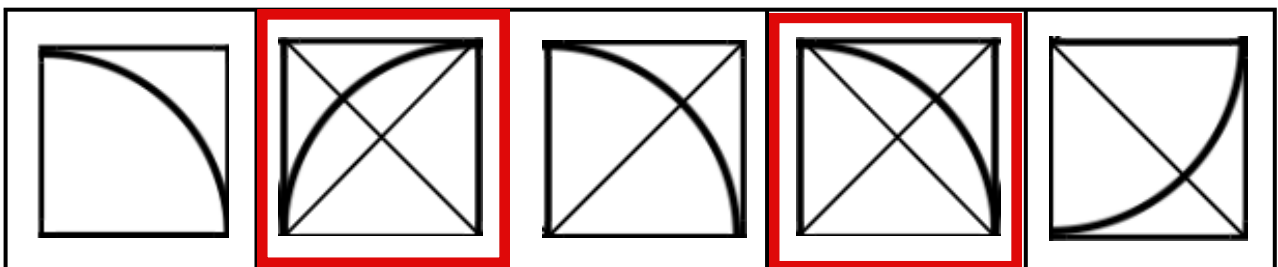
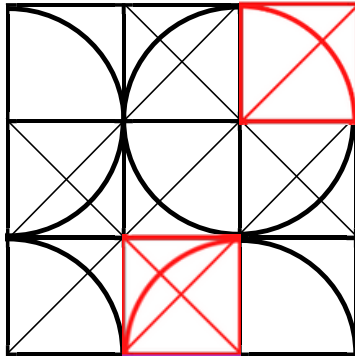
Step 2: (C) and (D) do not follow this rule.



SECTION B: ANSWER KEY

20. (B), (D)

Step 1:



(A)

(B)

(C)

(D)

(E)

SECTION B: ANSWER KEY

21. (C)

Step 1: (1) Unprecedented floods have been reported in many parts of Pakistan due to climate change.

(4) Summers can be wet due to short intervals of rainfall, but Pakistan's residents haven't experienced continuous rainfall for two months.

(2) Before, temperatures rose to 40 degrees Celsius due to extreme heat.

(3) As a result of these high temperatures, glaciers in the nearby mountains melted.

2, 3, 4, 1	4, 1, 2, 3	1, 4, 2, 3	1, 2, 4, 3	4, 2, 3, 1
(A)	(B)	(C)	(D)	(E)

SECTION B: ANSWER KEY

22 -23.

Step 1: Farida is the immediate right to Rawad.

R F

Step 2: Cole is the immediate right of Dawn.

D C

Step 3: Harsh is seated adjacent to both Farida and Ganga.

F H G



or

G H F



Step 4: Farida is sitting third to the left of Beatrice.

R F H G B

22.

Step 5: Beatrice is not sitting at the end.

Possibilities: R F H G B D C K
K R F H G B D C
D C R F H G B K

Kyle	Rawad	Farida	Dawn	Cole
(A)	(B)	(C)	(D)	(E)

SECTION B: ANSWER KEY

23. (B), (E)

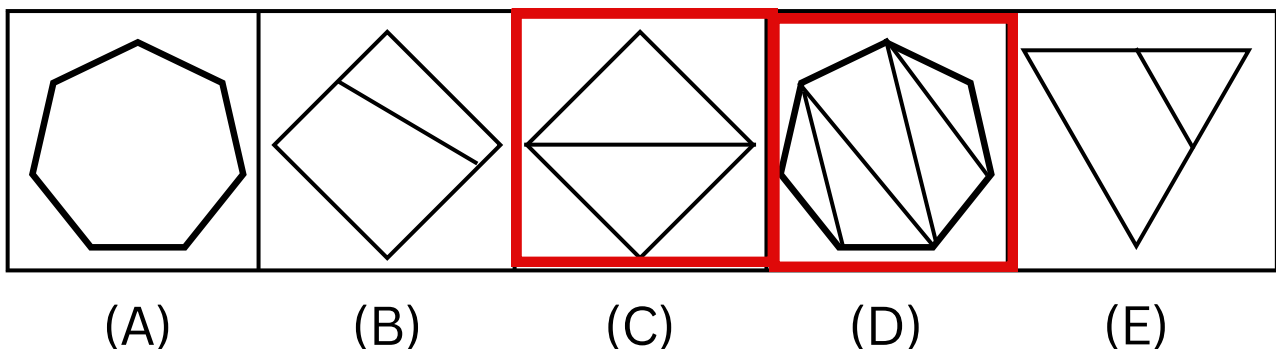
Step 6: Beatrice is sitting at the end.

Possibilities: **K D C A F H G B**

Ganga	Farida	Beatrice	Dawn	Cole
(A)	(B)	(C)	(D)	(E)

24. (C), (D)

Step 1: The rule is that all the lines pass from one corner to the other, and there is at least one line. (C) and (D) follows that rule.



SECTION B: ANSWER KEY

25. (C), (D)

Step 1: Statement 1 is the cause, and statement 2 is the effect.

Step 2: Statement 1 is the cause, and statement 3 is the effect.

(A) Statement 2 is the cause, and statement 3 is the effect.

(B) Statement 2 is the cause, and statement 1 is the effect.

(C) Statement 1 is the cause, and statement 2 is the effect.

(D) Statement 1 is the cause, and statement 3 is the effect.

(E) All statements are the causes.

SECTION C: ANSWER KEY

26. (C), (D), (E)

The causes include a rigid labor market, income structure, and economic imbalance.

(A) Rise in prices of goods and services.

(B) Mental health issues among youth.

(C) Labour market rigidities

(D) Wage structures

(E) Weak economy

27. (B)

The impacts include: Mental health of the younger generation is getting affected.

(A) Rise in prices of goods and services

(B) Mental health issues among youth.

(C) Strong economy

(D) Corruption in the government

(E) Increase in population

SECTION C: ANSWER KEY

28. (A), (C)

The solutions include Mentoring the younger generation and sharing knowledge and opportunities.

(A) Mentoring the youth.

(B) Increasing job qualification requirements

(C) Promoting platforms that share knowledge and opportunities.

(D) Promoting local businesses

(E) Raising the prices of goods and services.

29. (B)

Step 1: Statement 1 is the cause, and statement 3 is the effect.

(A) Statement 2 is the cause, and statement 3 is the effect.

(B) Statement 1 is the cause, and statement 3 is the effect.

(C) Statement 1 is the cause, and statement 2 is the effect.

(D) Statement 2 is the cause, and statement 1 and 3 is the effect.

(E) All statements are the causes.

SECTION C: ANSWER KEY

30. 23

Step 1:

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

0	1	2	3	4	5	6	7	8	9	Ones
0	1	2	3	4	5	6	7	8	9	Tens
0	1	2	3	4	5	6	7	8	9	Hundreds

SECTION C: ANSWER KEY

31. 26

Step 1:

1	2	3	4	5	6	7	8	9	10	11	12	13
B	A	D	C	F	E	H	G	J	I	L	K	N

M	P	O	R	Q	T	S	V	U	X	W	Z	Y
14	15	16	17	18	19	20	21	22	23	24	25	26

0	1	2	3	4	5	6	7	8	9	Ones
0	1	2	3	4	5	6	7	8	9	Tens
0	1	2	3	4	5	6	7	8	9	Hundreds

SECTION C: ANSWER KEY

32. 9

Step 1:

1	2	3	4	5	6	7	8	9	10	11	12	13
B	A	D	C	F	E	H	G	J	I	L	K	N

M	P	O	R	Q	T	S	V	U	X	W	Z	Y
14	15	16	17	18	19	20	21	22	23	24	25	26

0	1	2	3	4	5	6	7	8	9	Ones
0	1	2	3	4	5	6	7	8	9	Tens
0	1	2	3	4	5	6	7	8	9	Hundreds

SECTION C: ANSWER KEY

33. 12

Step 1:

1	2	3	4	5	6	7	8	9	10	11	12	13
O	P	Q	R	S	T	U	V	W	X	Y	Z	A

B	C	D	E	F	G	H	I	J	K	L	M	N
14	15	16	17	18	19	20	21	22	23	24	25	26

0	1	2	3	4	5	6	7	8	9	Ones
0	1	2	3	4	5	6	7	8	9	Tens
0	1	2	3	4	5	6	7	8	9	Hundreds

NGN LOGIC OLYMPIAD: OMR SHEET

1. ☐ A ☐ B ☐ C ☐ D ☐ E
2. ☐ A ☐ B ☐ C ☐ D ☐ E
3. ☐ A ☐ B ☐ C ☐ D ☐ E
4. ☐ A ☐ B ☐ C ☐ D ☐ E
5. ☐ A ☐ B ☐ C ☐ D ☐ E
6. ☐ A ☐ B ☐ C ☐ D ☐ E
7. ☐ A ☐ B ☐ C ☐ D ☐ E
8. ☐ A ☐ B ☐ C ☐ D ☐ E
9. ☐ A ☐ B ☐ C ☐ D ☐ E
10. ☐ A ☐ B ☐ C ☐ D ☐ E
11. ☐ A ☐ B ☐ C ☐ D ☐ E
12. ☐ A ☐ B ☐ C ☐ D ☐ E
13. ☐ A ☐ B ☐ C ☐ D ☐ E
14. ☐ A ☐ B ☐ C ☐ D ☐ E
15. ☐ A ☐ B ☐ C ☐ D ☐ E

NGN LOGIC OLYMPIAD: OMR SHEET

16. (A) (B) (C) (D) (E)
17. (A) (B) (C) (D) (E)
18. (A) (B) (C) (D) (E)
19. (A) (B) (C) (D) (E)
20. (A) (B) (C) (D) (E)
21. (A) (B) (C) (D) (E)
22. (A) (B) (C) (D) (E)
23. (A) (B) (C) (D) (E)
24. (A) (B) (C) (D) (E)
25. (A) (B) (C) (D) (E)

26. (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (O)
- (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (T)
- (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (H)

NGN LOGIC OLYMPIAD: OMR SHEET

27.

0	1	2	3	4	5	6	7	8	9	O
0	1	2	3	4	5	6	7	8	9	T
0	1	2	3	4	5	6	7	8	9	H

28.

0	1	2	3	4	5	6	7	8	9	O
0	1	2	3	4	5	6	7	8	9	T
0	1	2	3	4	5	6	7	8	9	H

29.

0	1	2	3	4	5	6	7	8	9	O
0	1	2	3	4	5	6	7	8	9	T
0	1	2	3	4	5	6	7	8	9	H

30.

A	B	C	D	E
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31.

A	B	C	D	E
---	---	---	---	---

32.

A	B	C	D	E
---	---	---	---	---

33.

A	B	C	D	E
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NGN LOGIC OLYMPIAD: OMR SHEET

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NGN LOGIC OLYMPIAD: OMR SHEET

16. ☐ ☒ B ☐ C ☐ D ☐
17. ☒ A ☐ ☐ C ☐ D ☐
18. ☐ ☐ B ☐ ☐ ☐
19. ☐ ☐ ☐ C ☐ D ☐
20. ☒ A ☐ ☐ C ☐ ☐ E
21. ☒ A ☐ B ☐ ☐ D ☐ E
22. ☒ A ☐ B ☐ ☐ ☐
23. ☒ A ☐ ☐ C ☐ D ☐
24. ☒ A ☐ B ☐ ☐ ☐ E
25. ☒ A ☐ B ☐ ☐ ☐ E

26. ☐ 0 ☐ 1 ☐ 2 ☐ ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☒ O
- ☐ 0 ☐ 1 ☐ ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☒ T
- ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☒ H

NGN LOGIC OLYMPIAD: OMR SHEET

27.

<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input checked="" type="radio"/>	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> O
<input type="radio"/> 0	<input type="radio"/> 1	<input checked="" type="radio"/>	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> T
<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> H

28.

<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input checked="" type="radio"/>	<input type="radio"/> O
<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> T
<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> H

29.

<input type="radio"/> 0	<input type="radio"/> 1	<input checked="" type="radio"/>	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> O
<input type="radio"/> 0	<input checked="" type="radio"/>	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> T
<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> H

30.

<input type="radio"/> A	<input checked="" type="radio"/>	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
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31.

<input type="radio"/> A	<input type="radio"/> B	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
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32.

<input type="radio"/> A	<input checked="" type="radio"/>	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E
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33.

<input checked="" type="radio"/>	<input type="radio"/> B	<input checked="" type="radio"/>	<input type="radio"/> D	<input type="radio"/> E
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