

SECTION A [20 Marks]Answer **all** the questions

Use OMR sheet for Question I only

Question I

[20]

1. The table gives the mass of domestic animals.

Animal	Mass (kg)
Sheep (Adult)	55.5
Goat (Adult)	27.7

What will be the total mass of the animals?

- A 82
B 83
C 72.2
D 83.2
2. A teacher asked team A, B, C, and D to make the highest number of pencil case by combining 24 red pens and 36 blue pens with no leftover.
Select the team who combined the pens with no leftover.
- A Team A: Concluded the finding by getting 12 groups as the maximum.
B Team B: Divided both the pens by 12 and said it will have the total of 5 cases.
C Team C: Shared both the pens equally and said there will be leftover with blue pens.
D Team D: Found out that they can group it into 12 different groups with no leftover.
3. The population of the cattle as per the Livestock Census in India in the year 2019 was 3,027,900,000.
Identify the place value of the underline digit?
- A Two
B Million
C Ten million
D Twenty million

4. Three customers bought 39 identical pieces of cakes.



1 whole = 10 equal pieces

Identify the correct calculation done for the number of whole cakes each customer will get?

- A $39 \div 3 = 13$ whole cakes
 - B $39 \div 10 = 3.9$ whole cakes
 - C $3 \div 39 = 13$ whole cakes
 - D $10 \div 39 = 3.9$ whole cakes
5. A customer bought $\frac{4}{6}$ of a pastry and shared $\frac{1}{2}$ to his friend.

How much pastry is left with him?

- A $\frac{1}{6}$
 - B $\frac{3}{4}$
 - C $\frac{5}{8}$
 - D $\frac{7}{6}$
6. Identify the correct statement for the whole number 1.
- A Neither prime, nor odd number
 - B Neither prime, nor whole number
 - C Neither prime, nor natural number
 - D Neither prime, nor composite number

7. The table shows the sets of shapes drawn by four different teams.

Team	Shapes
I	
II	
III	
IV	

Which team correctly represent both 2:5 and 2:3?

- A I
B II
C III
D IV
8. After a 15% price increase, a toy costs Nu 230.
What was the original price of the toy before the increase?
- A Nu 30
B Nu 34.5
C Nu 195.5
D Nu 200
9. A shopkeeper has a basket with 20 apples and sold 5 apples.

What percent of the apples did she sell?
- A 1%
B 5%
C 25%
D 75%
10. A basket has b apples.
If 3 apples are removed, how many apples are left?
- A $3b$
B $b + 3$
C $3 - b$
D $b - 3$

11. Study the pictures given below.

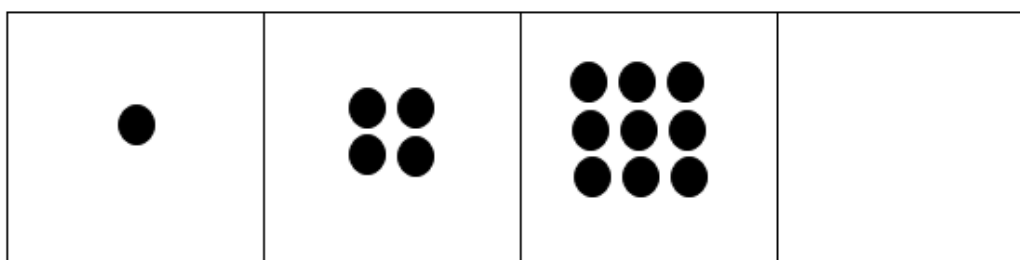


Figure I

Figure II

Figure III

Figure V

How many dots will be there in **Figure V**?

- A 12
- B 16
- C 25
- D 36

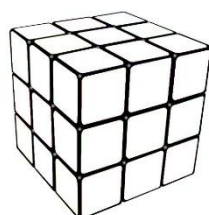
12. The table shows the question asked to four different students.

If a net has 6 congruent squares, which shape does it create?	
Student I	Square based prism
Student II	Rectangular prism
Student III	Square based pyramid
Student IV	Rectangular pyramid

Whose response is the most appropriate one?

- A Student I
- B Student II
- C Student III
- D Student IV

13. The diagram represents the Rubik's Cube.



How many faces does the cube have?

- A 6
- B 8
- C 12
- D 27

14.



Identify the properties of the object flying in the sky.

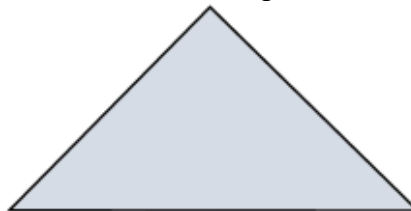
- A Only one diagonal is bisected and the diagonals are usually not equal in lengths.
- B Both the diagonals bisect each other and the diagonals are usually equal in lengths.
- C Diagonals don't bisect each other and the diagonals are usually not equal in lengths.
- D Two diagonals are of different measurement and bisect each other equally in lengths.

15. A carpenter builds the table top of the two different shapes as shown below.

Table top A



Table top B

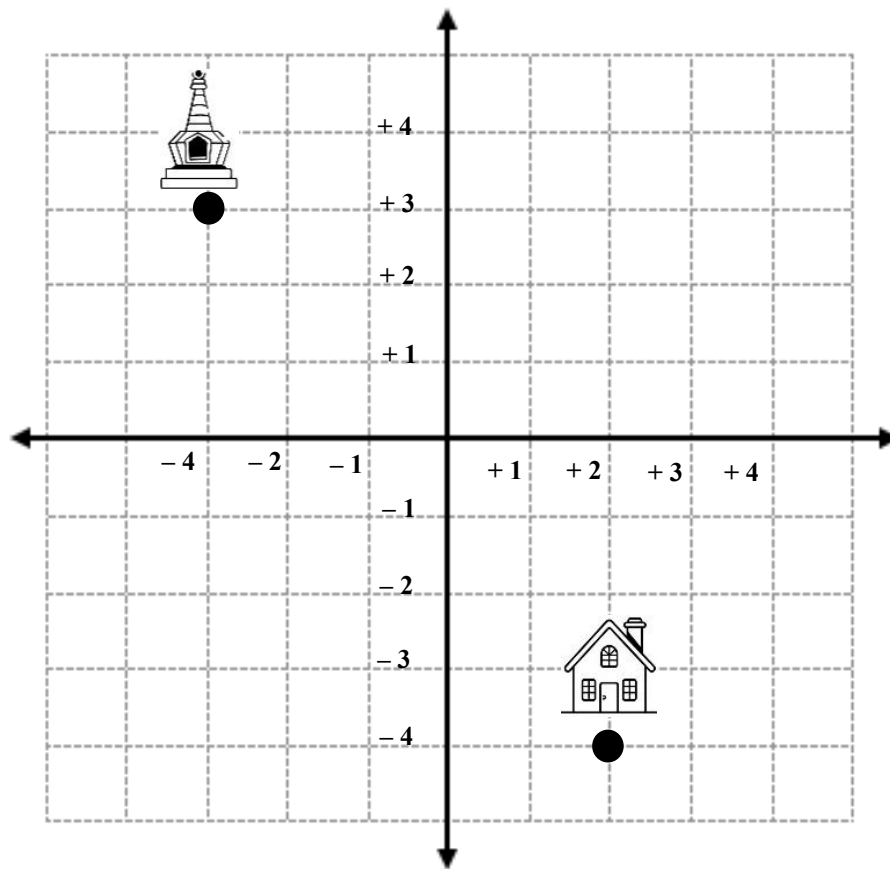


What could be the possible dimensions of Table top A and Table top B with the same area?

- A Table top A : $l = 12$ dm $w = 6$ dm Table top B : $b = 12$ dm $h = 8$ dm
- B Table top A : $l = 12$ dm $w = 6$ dm Table top B : $b = 16$ dm $h = 9$ dm
- C Table top A : $l = 12$ dm $w = 6$ dm Table top B : $b = 18$ dm $h = 6$ dm
- D Table top A : $l = 12$ dm $w = 6$ dm Table top B : $b = 20$ dm $h = 7$ dm

16. A farmer harvested 3 tonnes of rice and packed in 50 kg sack.
How many 50 kg sacks do the farmer need to pack in all?
- A 60 sacks
 - B 150 sacks
 - C 600 sacks
 - D 3000 sacks
17. Three angles meet at a single point to form a full circle.
Evaluate the correct calculation done to find Angle C, when Angle A and Angle B are given as 30° and 55° ?
- A Sum of the angles = 100° Angle A + Angle B = 85°
Angle C = $100^\circ - 85^\circ = 15^\circ$
 - B Sum of the angles = 180° Angle A + Angle B = 85°
Angle C = $180^\circ - 85^\circ = 95^\circ$
 - C Sum of the angles = 360° Angle A + Angle B = 85°
Angle C = $360^\circ - 85^\circ = 275^\circ$
 - D Sum of the angles = 720° Angle A + Angle B = 85°
Angle C = $720^\circ - 85^\circ = 635^\circ$
18. The probability of an event occurring is $P(E)$, and the probability of it not occurring is $P(\text{not } E)$.
Select the correct equation.
- A $P(E) + P(\text{not } E) = 0$
 - B $P(E) \times P(\text{not } E) = 1$
 - C $P(E) + P(\text{not } E) = 1$
 - D $P(E) - P(\text{not } E) = 0$

19. What are the locations of the stupa and the house?



- A $(+3, -4)$ and $(-4, +2)$
B $(-4, +3)$ and $(+2, -4)$
C $(+2, -4)$ and $(-4, +3)$
D $(-4, +2)$ and $(+3, -4)$
20. Which one will avoid bias sampling while collecting general information?
- A Surveys only people in a single location to understand opinions.
B An online poll where only strongly motivated individuals respond, rather than a representative cross-section of the population.
C A mall survey that excludes people who do not have transportation to the mall, do not like shopping, or prefer other locations.
D Every individual in the population has an equal chance of being selected, reducing the risk of favouring certain groups.

SECTION B [30 Marks]

Answer **all** the questions

Question II

1. The table shows the approximate distance from Earth to Sun and to Jupiter.

Celestial Bodies	Distance (km)
Earth to Sun	149,600,000
Earth to Jupiter	0.778 billion

- a. Which celestial body is further from Earth? [1]

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- b. How much further is it from the Earth? How do you know? [2]

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2. Global prices for the fuel is about \$1.58 per litre.
The driver paid \$110.6 for 7 liters.
Did the driver pay the right amount? Justify your answer.

[2]

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Question III

1. A container is filled with $\frac{2}{3}$ litre of water. If $\frac{1}{5}$ litre more is added, will it fill the whole container till brim? Show your work.

[3]

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2. A test has 20 questions. Each correct answer is +5, each wrong answer is – 2, and skipped questions are 0.

If student gets 14 correct, 4 wrong, and skips 2, what is her total score?

[2]

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Question IV

1. A shopkeeper wants to fill the rectangular container box measuring 2 m by 80 cm by 1.5 m by flour. He said it can hold 2400 kg of flour.

Do you agree? Justify your answer.

[3]

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2. The centre of the Ferris wheel is located at the origin $(0, 0)$.
A passenger gets into a seat located at the point $(3, 4)$. The wheel stopped at 90° **counter-clockwise** around the centre $(0, 0)$.
Identify the new coordinates of the passenger. [2]

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Question V

1. A boy has some fruits. He gives 5 to his friend, and now he has 12 left.
Draw equation and find the total number of fruits? [2]

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2. A sales person is stacking canned juice in a pyramid shape for a grocery display.
- The top row has 1 canned juice.
 - The second row has 2 canned juices.
 - The third row has 3 canned juices.

a. If the display has 5 rows, how many packets are in the display?

[1]

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b. If the sale person is given with 35 canned juice, will he be able to stack perfectly in the given order? How do you know?

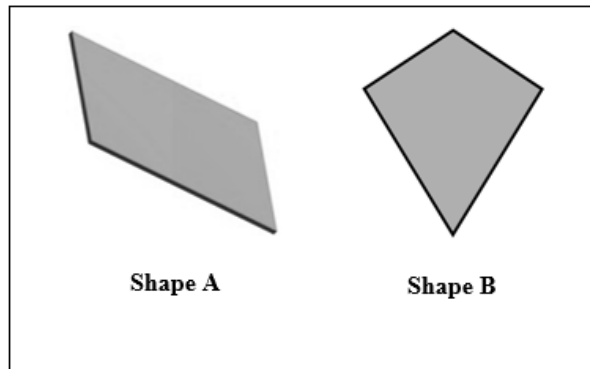
[2]

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Question VI

a) Cards with different shapes are displayed as given in the table.

[3]

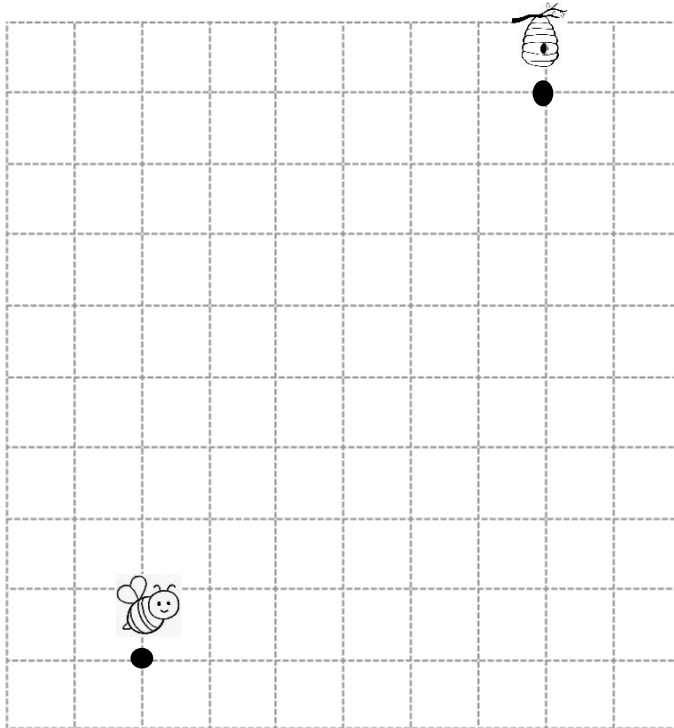


Which shape has the turn symmetry? Explain your thinking.

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b) Study the grid and answer the question.

[2]



How far is the bee from the hive?

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Question VII

1. A spinner with 4 equal sections (Red, Blue, Green, Yellow) is spun. The number of times each colour is given as:

- Red: 10 times
- Blue: 18 times
- Green: 5 times
- Yellow: 7 times

- a. What is the experimental probability of landing on Green?

[1]

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- b. One of the players says, not landing on Red and Yellow is 43%. Do you agree? Evaluate your work.

[2]

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2. The table shows the mark scored in weekly test.

Subject	Mark (10)
Dzongkha	8
English	9
Math	5
Science	10
DTI	8

The teacher asked one of the students to calculate the central tendency for the above recorded mark.

The student calculated as shown:

$$\text{Central Tendency} = (8 + 9 + 5 + 10 + 8) \div 5 = 40 \div 5 = 8$$

[2]

Do you agree? Why or why not?

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Measurement Formulas and Relationship

1. Area of a rectangle = $l \times w$
2. Area of parallelogram = $b \times h$
3. Area of triangle = $(b \times h) \div 2$ **OR** $\frac{b \times h}{2}$
4. Perimeter of rectangle = $2(l + w)$ **OR** $l + w + l + w$
5. Perimeter of square = $4 \times s$ **OR** $s + s + s + s$
6. Volume of rectangular prism = $l \times b \times h$
7. Volume of cube = $s \times s \times s$
8. Theoretical probability = $\frac{\text{Number of favourable outcomes}}{\text{Number of possible outcomes}}$
9. $1 \text{ cm}^3 = 1 \text{ mL} = 1 \text{ g}$
10. $1 \text{ tonne} = 1000 \text{ kg}$
11. $1 \text{ kg} = 1000 \text{ g}$

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