

CAREERS 360

PRACTICE **Series**

AIEED

**Official CAT
Sample Paper
(with Solutions)**

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Careers360

ABOUT THIS eBook

Dear AIEED Aspirants,

We are excited to share that we have created an eBook on AIEED CAT Sample Paper with Solutions to help you in your preparation. This comprehensive guide is designed to help you prepare through all aspects of the exam, ensuring you are well-prepared to tackle every challenge with confidence.

What's inside this eBook?

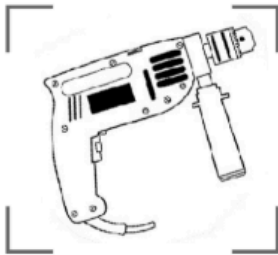
1. AIEED CAT Sample Paper with Solutions

Dive into your preparation with this guide and move confidently towards achieving your goal of excelling at the AIEED exam.

All The Best!!!!

AIEED CAT Question Paper with Solutions

Q.1 Recognize the tool given below within the frame and choose the most closely related object from the given choices.



[A]



[B]



[C]



[D]

Correct Option: B

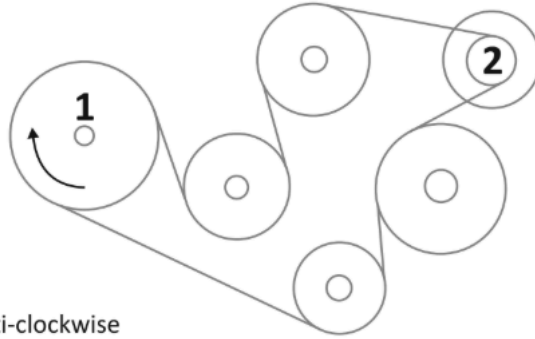
Explanation:

The tool shown in the image is an electric drill. The object most closely related to it is a drill bit, which is used as an attachment with the drill to make holes in materials like wood, metal, or plastic. Option [B] shows a drill bit, making it the most directly associated item among the given choices.

- [A] Nail – used with a hammer, not a drill.
- [C] Blade – unrelated to a drill's function.
- [D] Screw – can be driven using a drill, but not as directly associated as the bit itself.

Hence, [B] Drill Bit is the best match.

Q.2 When the wheel 1 turns in the direction shown, in what direction should wheel 2 turn in?



- [A] Anti-clockwise
- [B] Clockwise
- [C] Wheel 2 would not move
- [D] All wheels would get stuck

Correct Option: B

Explanation:

The system shown uses belt drives connecting the wheels. In a belt and pulley system:

- If the belt is twisted (as shown in the image), the wheels rotate in opposite directions.
- If the belt is not twisted, the wheels rotate in the same direction.

In this setup:

- Wheel 1 rotates anti-clockwise.
- The belt configuration alternates the direction of rotation with each connected wheel.
- Since there is an odd number of wheels (including idlers) in the belt path between wheel 1 and wheel 2, wheel 2 will rotate in the opposite direction to wheel 1.

Therefore, if wheel 1 rotates anti-clockwise, then wheel 2 will rotate clockwise.

Correct answer: [B] Clockwise.

Q. 3 Which of the cubes was formed from the cutout given below ?



Correct Option: B

Explanation:

To solve this cube unfolding problem:

- Observe the net carefully: The center face (with the arrow) will be the top face. The adjacent four side faces will fold up around it, and the one with the man will become the bottom.

From the cube net:

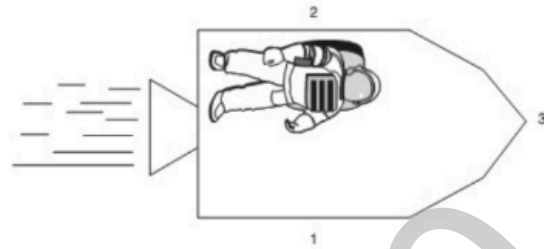
- Faces adjacent to the arrow: Flower, Car, Fish, and Star
- Opposite faces: Man is opposite the arrow

Now check the visible adjacent faces in the options:

- Option A: Shows arrow, flower, star together. But flowers and stars are on opposite sides, so this is incorrect.
- Option B: Shows arrow, fish, star together. All these are adjacent to the arrow and not opposite to each other. So this is correct.
- Option C: Shows arrow, flower, car together. Flowers and cars are opposite each other, so this is incorrect.
- Option D: Shows fish, flowers, stars together. Flower and star are opposite, so this is also incorrect.

Hence, the correct cube that can be formed is shown in Option [B].

- Q.4 When a spacecraft is not affected by the Earth's gravity, and the thrust on it is ZERO, the astronaut will be in what position ?



- [A] He will fall towards side **1**
[B] He will stay where he is at side **2**
[C] He would be thrust towards the nose at **3**
[D] He would be thrown outside the spacecraft

Correct Option: B

Explanation:

In the situation described:

- The spacecraft is in zero gravity (not affected by Earth's gravity),
- And no thrust is being applied (i.e., no acceleration or deceleration).

This creates a condition of inertia in microgravity. According to Newton's First Law of Motion, an object at rest or in uniform motion will stay that way unless acted upon by an external force.

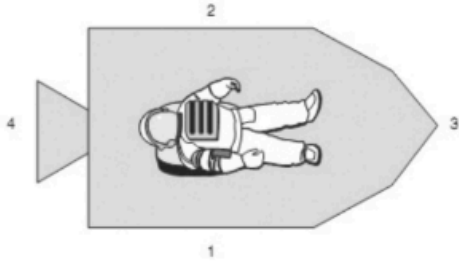
So, the astronaut inside the spacecraft:

- Will not fall in any direction (as gravity is absent),
- Will not be pushed towards the front or back (as there's no acceleration),
- And will not be thrown outside (since the spacecraft is sealed and there's no force acting on him).

Therefore, the astronaut will stay suspended exactly where he is, at side 2.

Correct answer: [B] He will stay where he is at side 2.

Q.5 In space, when a stationary spacecraft accelerates, the same astronaut will be in what position ?



- [A] be thrust towards the nose at **3**
- [B] fall down towards side **1**
- [C] float upwards, due to weightlessness, towards **2**
- [D] fall on his head on the floor at **4**

Correct Option: A

Explanation:

When a stationary spacecraft accelerates in space, it starts moving forward (in the direction of the nose, side 3). However, due to inertia, the astronaut inside tends to remain at rest unless acted upon by a force (Newton's First Law).

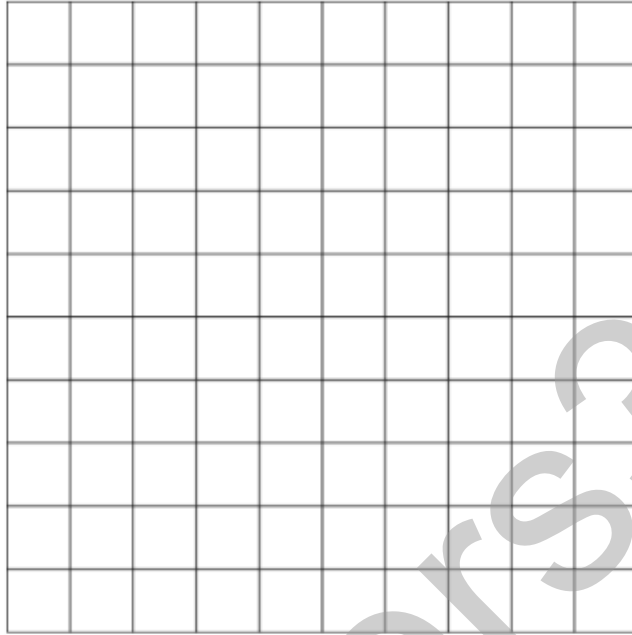
From the astronaut's point of view:

- The spacecraft accelerates forward (toward side 3),
- But the astronaut's body lags behind,
- Which makes it appear (relative to the spacecraft) that the astronaut is being thrown backward, toward the rear of the spacecraft (i.e., side 4).

But from an external inertial frame, the astronaut remains where they are while the spacecraft moves forward beneath them. Thus, relative to the spacecraft, the astronaut appears to be pushed backward toward the rear (side 4), which is equivalent to being thrust toward the nose (side 3) from the spacecraft's reference frame.

Correct Answer: [A] be thrust towards the nose at 3.

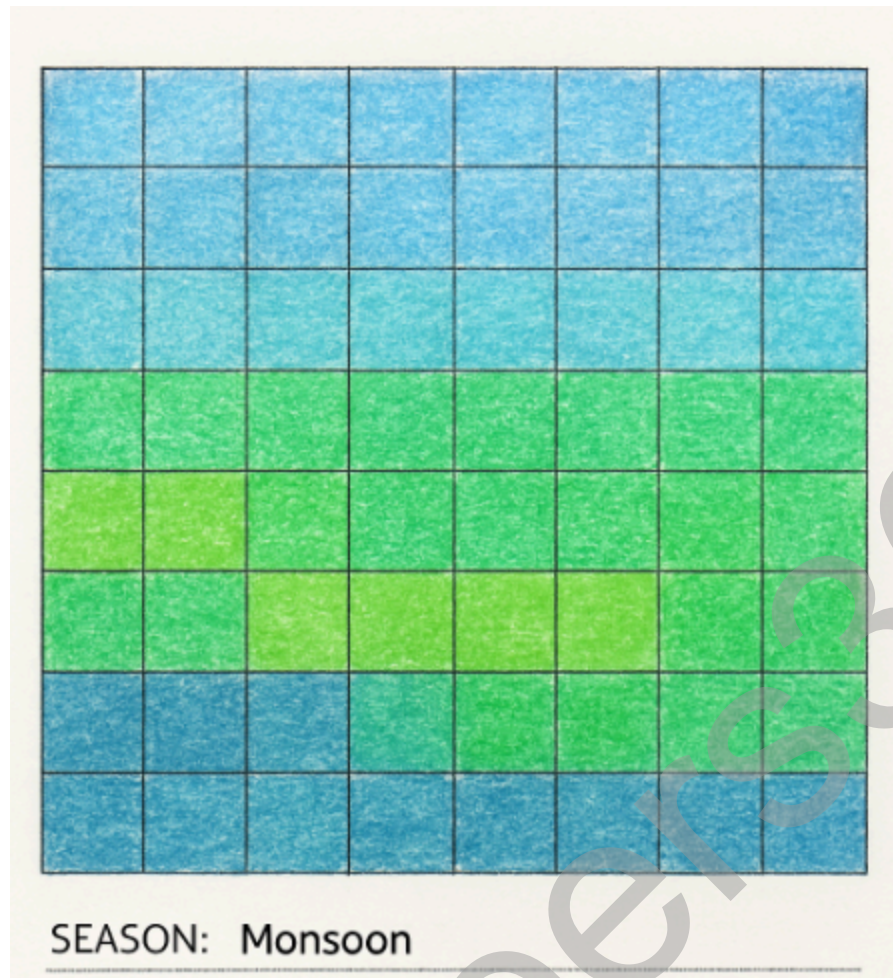
- Q.6 Make a color composition by filling colors in the GRID given below representing any ONE of the **Indian Seasons**. Use **ONLY Dry Colors** for this and fill each box completely with **ONE** color only.
Below that write a few lines about your memories of this season.



SEASON :

MEMORIES :

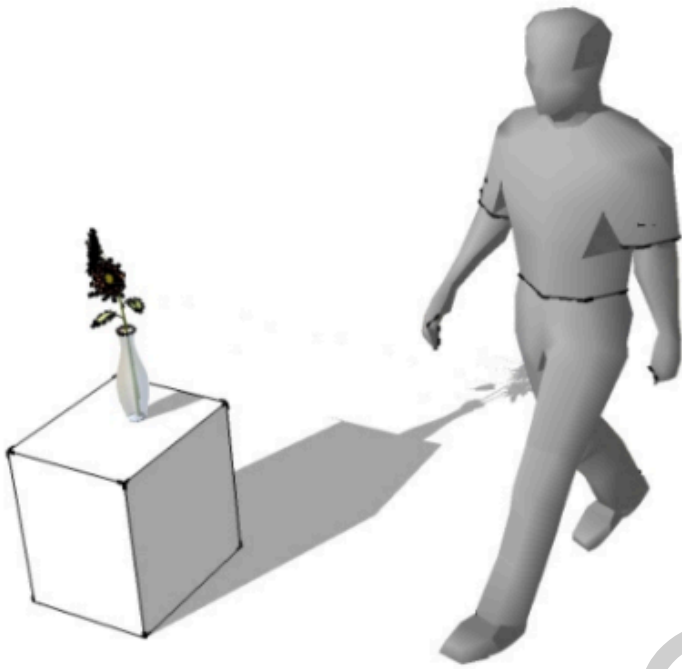
Solution:



Memories: I remember jumping in puddles and watching paper boats float in the rainwater. The smell of wet mud and the sound of rain on the roof always made monsoons magical. We used to enjoy hot pakoras and tea with family while it poured outside. It's my favorite season because everything looks so fresh and alive.

Q.7 In the following page you would find the IMAGE of a vase on a cube in the sunlight. Notice, how the objects' SHADOWS falls on the Ground.

Considering the same LIGHTING CONDITIONS, draw the shadow of the Standing MAN.

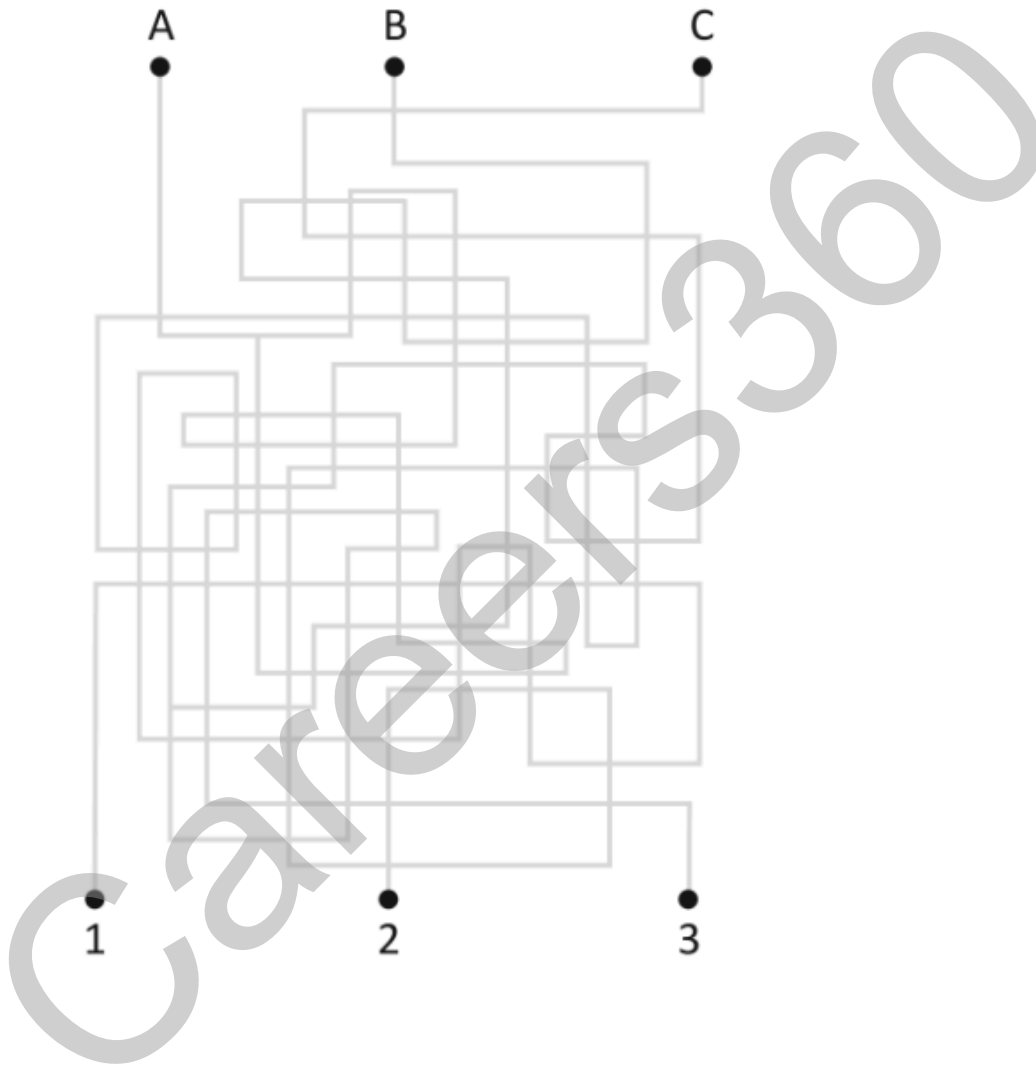


Solution:



Q.8 In the MAZE given below lines connect the points A, B, C to 1, 2, 3.
Find out the longest pathway existing between an alphabet and a number and mark the path out as a single dark continuous line connecting them.

USE a black pen OR a dark pencil for this.
Make sure you draw a SINGLE & CONTINUOUS LINE.



Solution:

The longest path is from point A to point 3.
It twists and turns significantly more than any other path in the maze.

Explanation:

1. Trace all paths from A, B, and C to 1, 2, and 3.
2. Measure which path has the maximum length (the longest continuous path).

3. Then draw a dark continuous line over the longest one.

Q.9 An OLD MAN & his DOG are at the park for a morning walk.
IMAGINE a CONVERSATION between them and DRAW a small comic strip (with words) to illustrate this STORY.
Use ONLY the space provided below & position each frame of the comic strip according to your judgement. Use as many frames as you want in your comic strip.

Solution:

Here's a preview of how the frames will be arranged:

1. Old Man greeting the dog happily, dog wagging tail.
2. Old Man appreciating sunrise, dog sniffing the air.
3. Old Man complimenting dog, dog looking lovingly.
4. Old Man and dog enjoying the morning, dog barking softly.

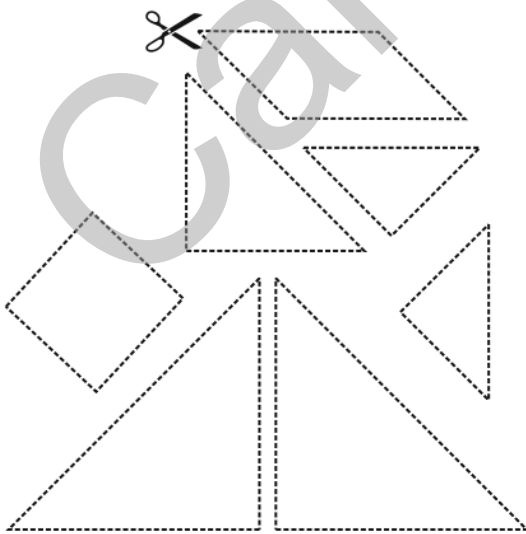
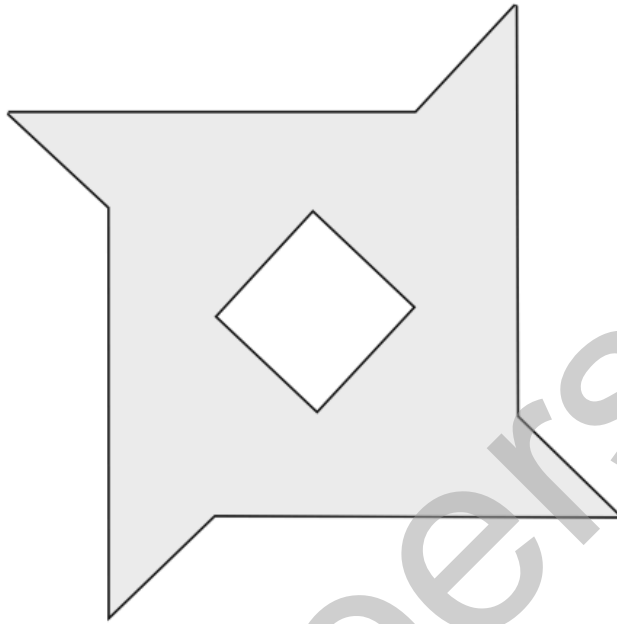


Q.10 Given below is a STAR shaped Geometric form.
In the FACING PAGE you would find a SET of 7 geometric forms to CUT OUT.

Neatly CUT, ARRANGE & PASTE using only ONE SET to create the form given below.

You MUST NOT OVERLAP any of the cutout shapes. Only ONE set needs to be used, the other is given as SPARE.

You may PASTE on the given form itself.



Solution:

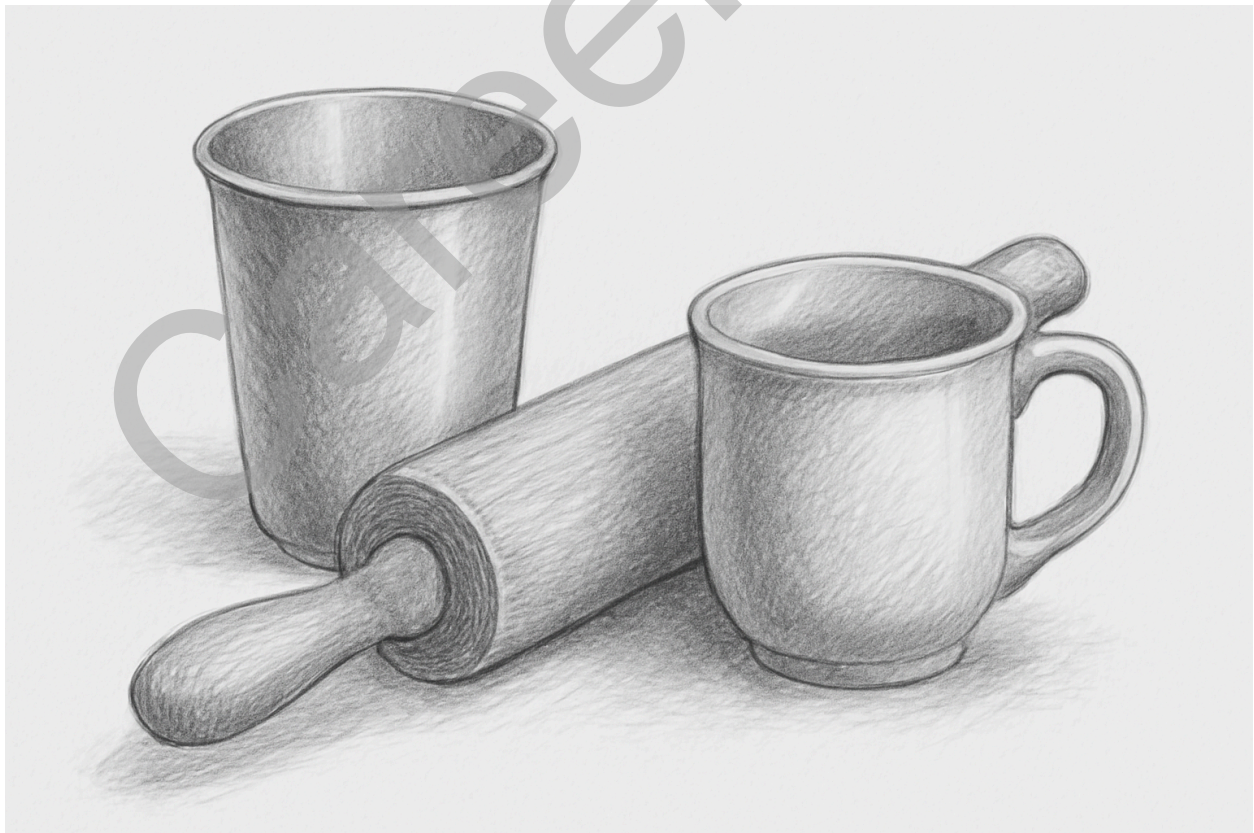
- The two largest triangles fill the bottom-left and top-right arms.
- The two medium triangles fill the top-left and bottom-right arms.
- The square fits exactly into the center cutout.
- The two small triangles fill the remaining spaces near the center square, completing the star.

Q.11 Draw the following objects in sizes proportionate to each other inside the space given below :

- Stainless Steel Glass
- Wooden Rolling Pin
- Ceramic Mug

Make these DRAWINGS with PENCIL ONLY. Also pay attention to how you show the material of each object.

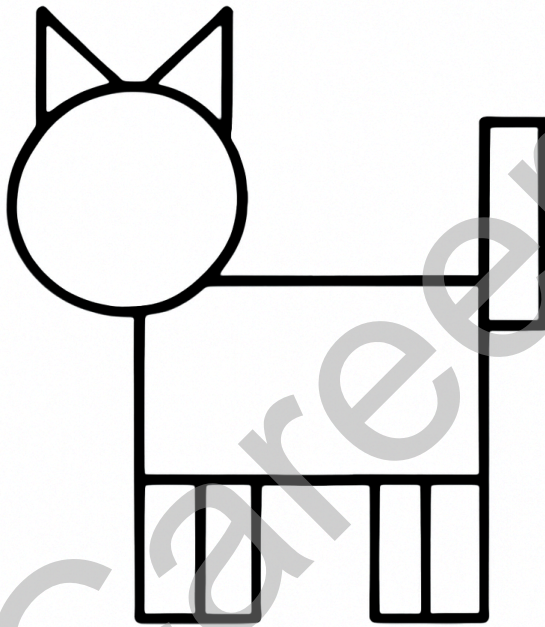
Solution:



Q.12 DRAW a DOMESTIC ANIMAL using ONLY the following shapes :



Solution:



Q.13 Given below are 3 objects from our very RECENT PAST.
Choose ONE of these products and write on ALL the following topics related to the selected product :

- Relevance of this product in your life.
- Considering its function, what is the corresponding product in use currently ?
Draw any one of these recent versions.
- Is the original product shown below better or worse than its more recent versions ?

In either case, explain why & in what all ways is that positive or negative.

Write short paragraphs & make small sketches for your answers.

Use the space given on the following page for all your answers and drawings



(A) Wheat Grinder



(B) Telephone



(C) Lantern

Solution:

Product Selected: Telephone

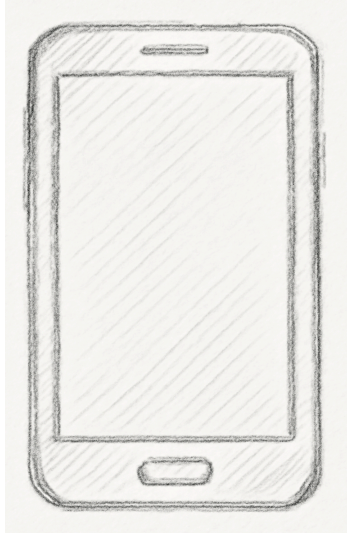
1. Relevance of this product in your life:

The telephone has been an essential device for communication in daily life. It allows people to connect instantly across long distances. Even though mobile phones and smartphones have mostly replaced traditional telephones, the basic concept of voice communication through electrical signals remains the same.



2. Corresponding product in use currently:

The modern corresponding product is the Smartphone. Smartphones not only allow voice communication but also provide features such as video calling, texting, internet access, apps, GPS, and multimedia functions.



3. Is the original product better or worse than its more recent versions?

The original telephone is worse than modern smartphones in terms of functionality and convenience but may be seen as better in terms of simplicity and durability.

Positive aspects of original telephone:

- Simple to use, no need for software updates or charging batteries.
- Durable and long-lasting with fewer parts that can malfunction.
- No distractions from apps or the internet.

Negative aspects of original telephone:

- Limited to voice calls only, no multimedia features.
- Fixed location, no portability.
- Requires physical connection through wires, limiting mobility.

Positive aspects of smartphones:

- Portable and multifunctional with many communication and entertainment options.
- Access to the internet, social media, and apps for productivity and leisure.
- Enhanced communication modes including video calls and instant messaging.

Negative aspects of smartphones:

- Can cause distractions and addiction.
- Require charging and software updates.
- More fragile and prone to damage.