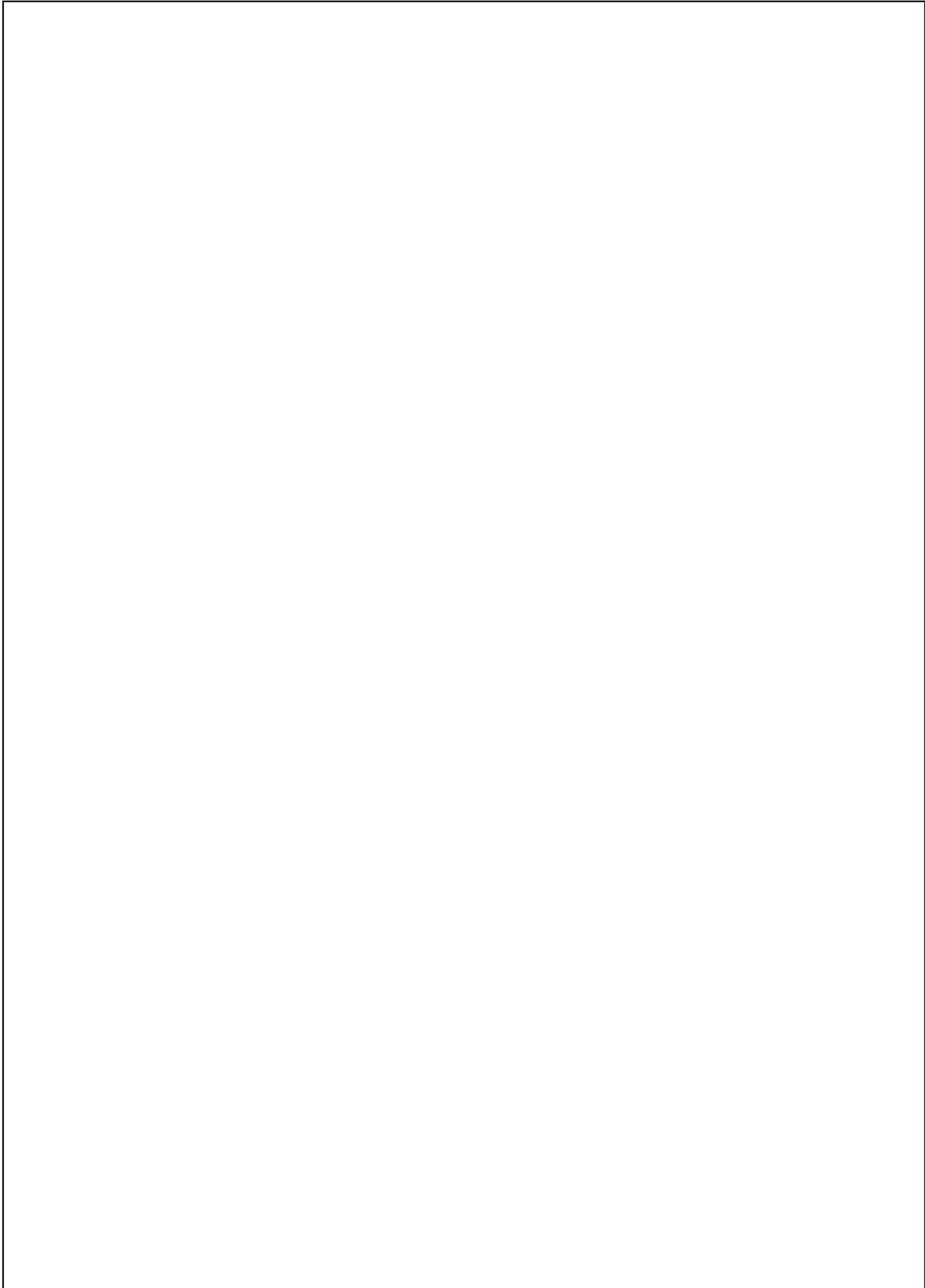
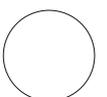


- Q1** When you wake up one morning, you find yourself on a planet exact twin of Earth, **with gravity lesser than that on Moon**. Describe the kind of life (humans, flora, fauna) that would have flourished there. Visualise and **logically explain** why the life forms will become the way you have visualised them to be? **10**
- Sketch & Explain** in the space given below.

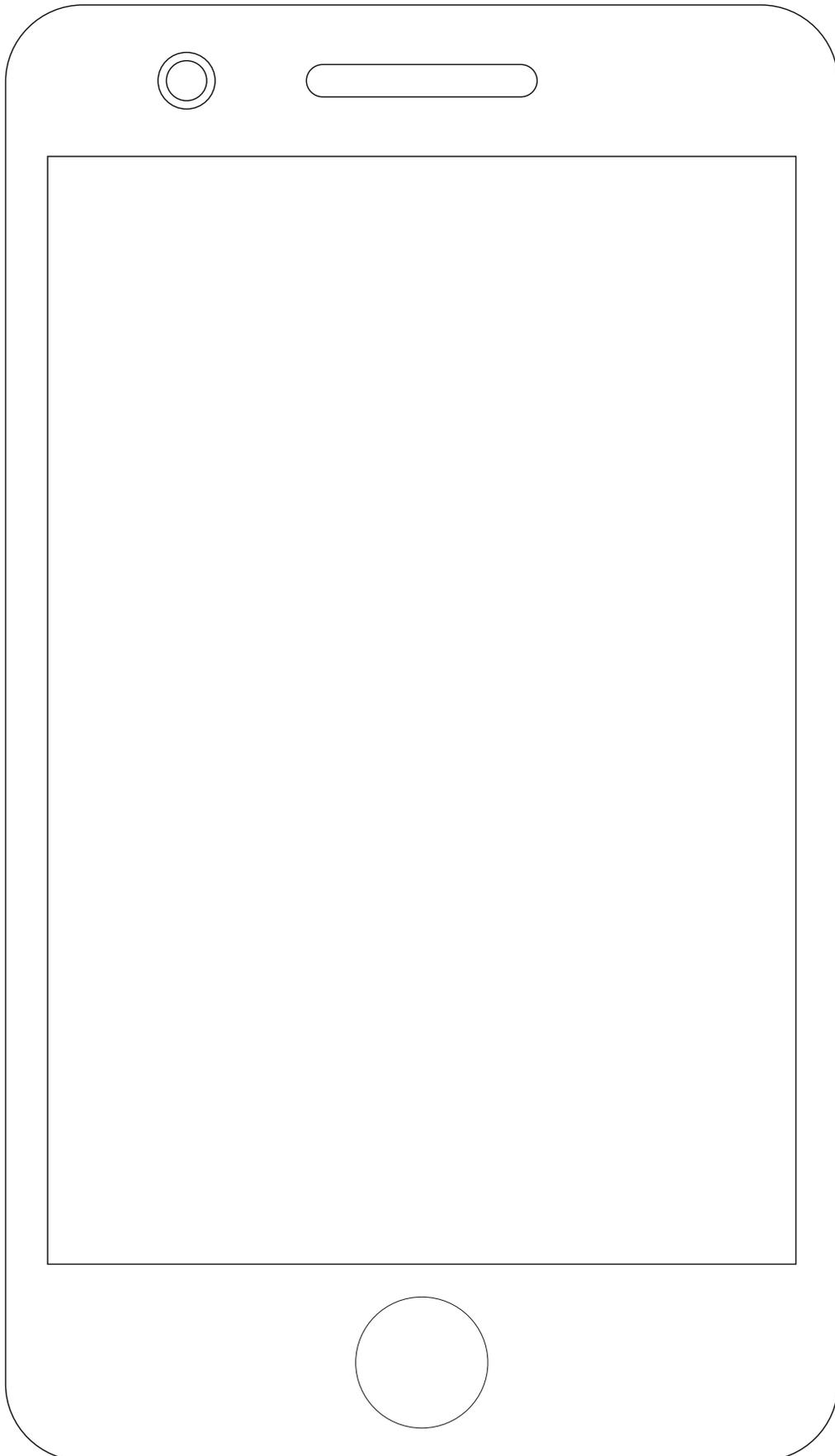


This box can also be used in landscape orientation



Q2 What will be your **SELFIE** when this DAT exam results will be declared? Sketch out your solution highlighting **most creative way** you will click that SELFIE.

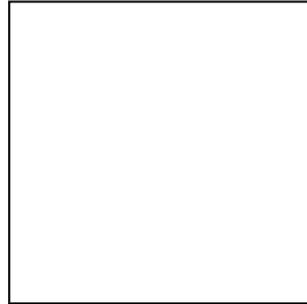
10



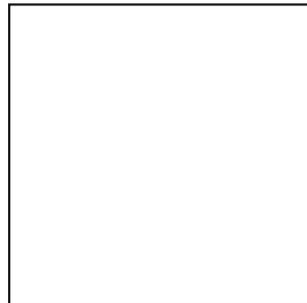
Q3 Sketch Icon / logo of following mobile applications in the given box.

10

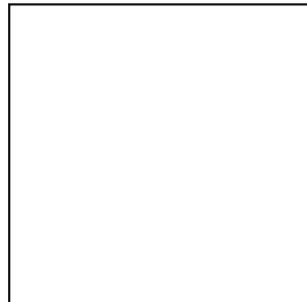
A) FACEBOOK



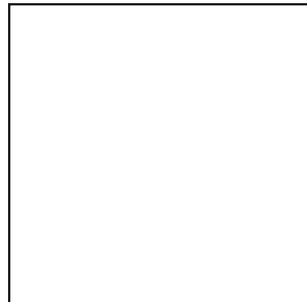
B) CHROME



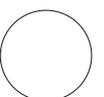
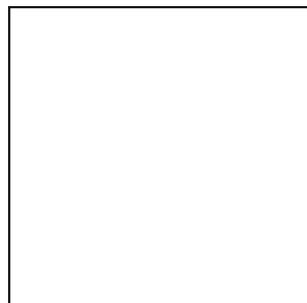
C) TWITTER



D) GOOGLE PLAYSTORE



E) WHATSAPP

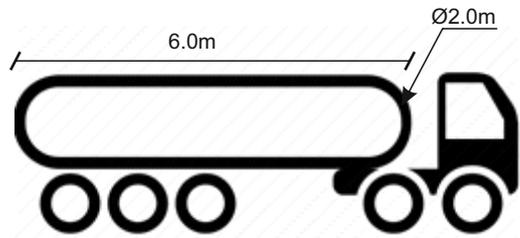


Q4 Answer the following situations.

20

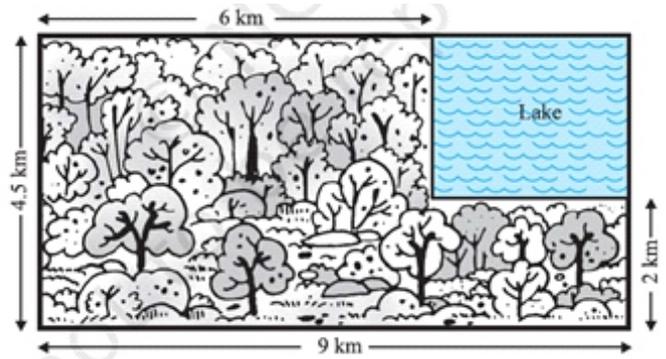
A. What will be the volume of oil contained in the tanker truck shown below? The diameter of container is 2 m and total length is 6 m. The container has hemi-spherical dished ends.

05



B. A missing helicopter is reported to have crashed somewhere in the rectangular region shown in figure below. What is the probability that it crashed inside the lake shown in the figure?

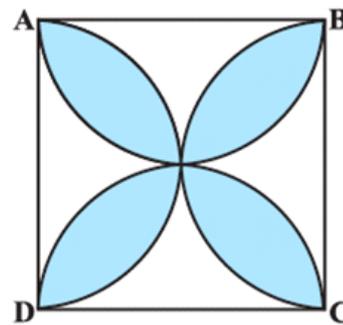
05



C. Find the area of the shaded portion shown here.

05

Side of square ABCD = 100 mm and $\pi = 3.14$



D. Find the highest common factor (HCF) and least common multiple (LCM) of 6, 72 and 120. You may use prime factorisation method.

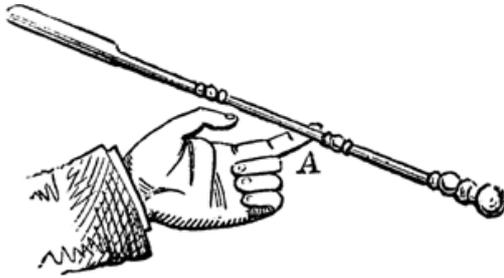
05



Q5 Name the **scientific phenomenon** shown in the images below.

05

A.



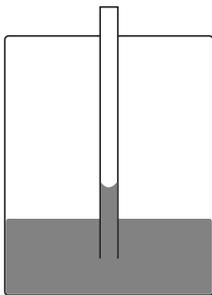
01

B.



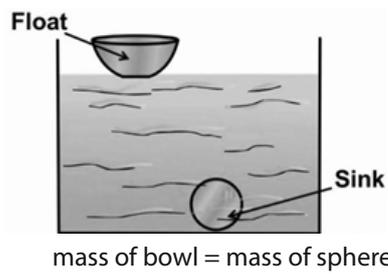
01

C.



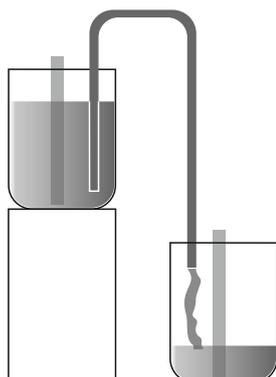
01

D.

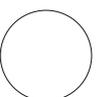


01

E.



01



Q6 Answer the following **situations**.

05

A. Name the type of mirror (Convex/Concave/Flat) used in the following situations. Support your answer with reason.

01

(a) Headlights of a car _____

(b) Side/rear-view mirror of a vehicle _____

B. You must have seen tarnished copper vessels being cleaned with lemon or tamarind juice. Explain why these sour substances are effective in cleaning the vessels.

01

C. How DC batteries in the household applications like TV remotes, Wall clocks etc, are specified in terms of its size?

01

D. Calculate digital memory space of 8 Gb pen drive in megabytes.

01

E. Why does pressure cooker cook food faster than conventional cooking methods?

01



Q7 Answer the following

20

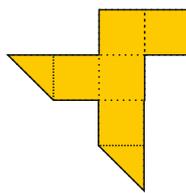
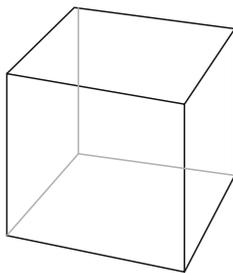
- A.** Mohan has twelve black socks and twelve white socks in his drawer. In complete darkness, and without looking, **how many socks** must he take from the drawer in order to be sure to get a pair that match?

02

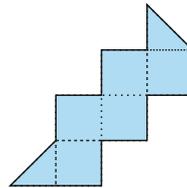
- B.** Each of the six shapes shown besides the cube in the illustration consists of five squares and two triangles. Some of these shapes can supposedly be folded into a 1x1x1 cube, while others can not.

02

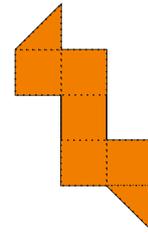
Can you figure out which of the shapes **can be folded into the cube**, keeping in mind that only the folds along the dotted lines are allowed?



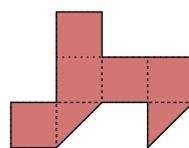
A



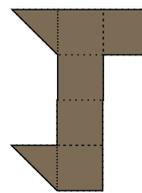
B



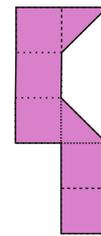
C



D



E



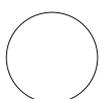
F

your answer

- C.** Which of the following statement **is true**? Tick the correct answer.

02

- A. The number of false statements here is one.
- B. The number of false statements here is two.
- C. The number of false statements here is three.
- D. The number of false statements here is four.



Q7 continued ... Answer the following

D. A store declares a scheme that they would give one chocolate for seven wrappers. A boy goes to the store with 49 wrappers. **How many chocolates does he get?**

02

E. A duck, a goose, a goat, and a horse all entered the barn at different times during a day.

02

- 1) A mammal entered the barn first.
- 2) The duck entered before the goose.
- 3) The goose entered ahead of the horse.

Who entered the barn first?

F. A corporate businessman has two cubes on his office desk. Every day he arranges both cubes so that the front faces show the current day of the month.

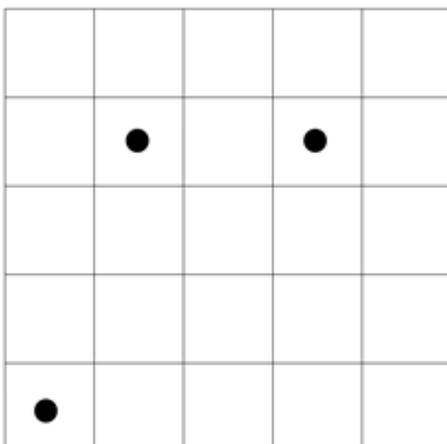
05

What numbers should be there on the faces of the cubes to allow all dates to be displayed ?

Note: You have to use both cubes all the time, so the 7th day would be displayed as "07".

G. **What are the maximum number of squares,** that can be identified which do not contain a dot?

05



your answer

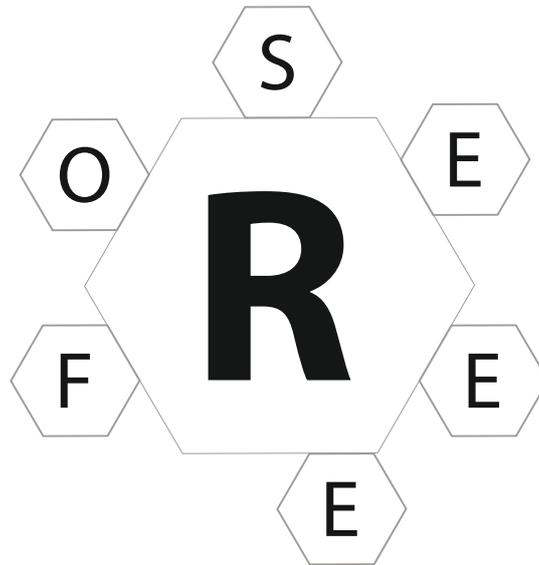


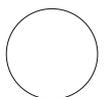
Q8 How many words of **four or more letters** can you make from the letters shown below ?

05

Every word **must contain the central letter**.
 There should be **one seven letter word**.
No letter should be repeated twice
Here 'E' can be used maximum 3 times in a word.

British English Dictionary can be used as a reference.





Q9 The illustration on the following page is from one of the famous Aesop's Fables "**THE BLUE JACKAL**".

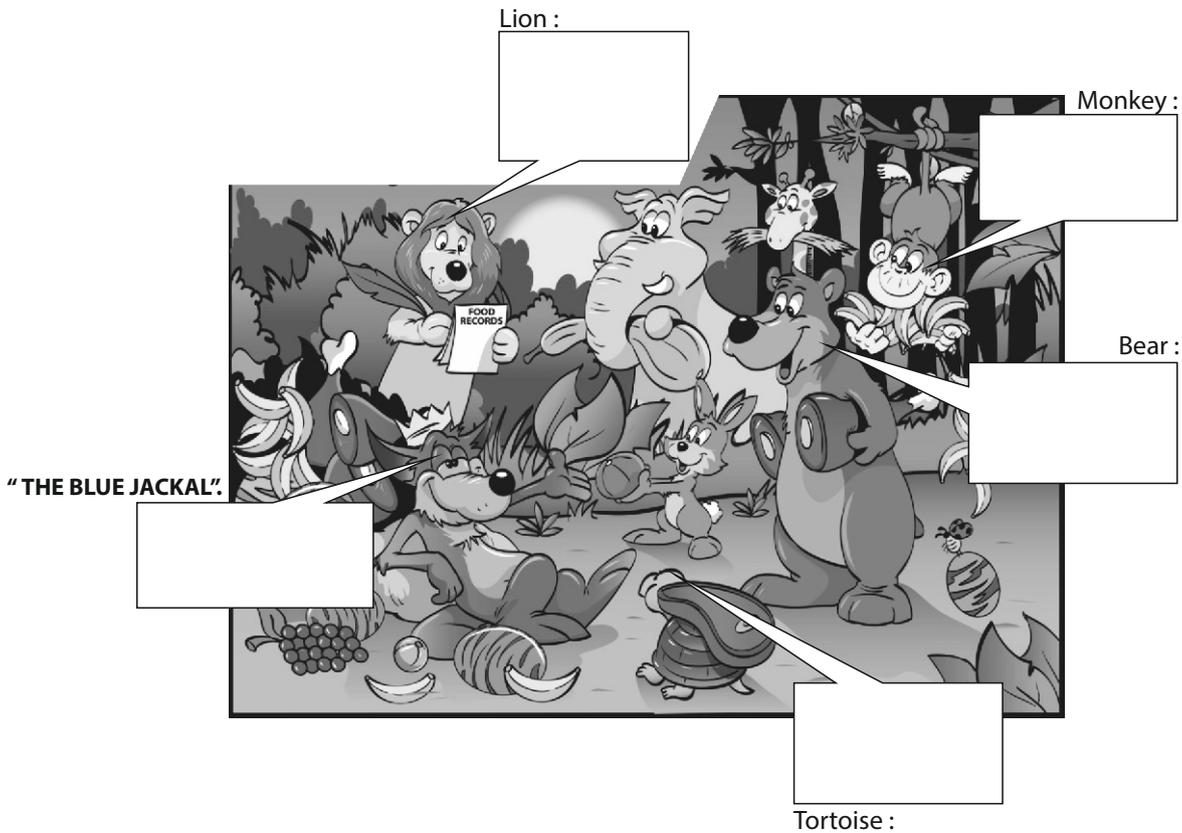
05

The story plot in short reads as:-

*One day a jackal accidentally fell into the indigo-vat & turned blue.
 He entered the jungle & fooled all other animals to become the king.
 One evening jackals set up a loud yell. The blue king yelled back.
 From the yell a tiger at once knew him to be a jackal. He fell on the blue king and killed him.*

The moral of the Story of the Blue Jackal is 'Do not pretend to be what you are not'.

Q9 continued ...



Communicate in your own words, **what the characters of the story would be saying** in the above illustration?

The illustration shows a scene when 'the blue jackal' is king of the jungle

The sayings has to be brief & responsive to the speech bubbles shown.

Lion :

Monkey :

Bear :

Tortoise :

" THE BLUE JACKAL"



you can use this page for **ROUGH WORK**