

CEED 2013

Question Paper



Indian Institute of Technology Bombay

CEED 2013 Part A

Fifty Questions,

Correct answer carries + 2.0 marks, Wrong answer carries- 0.5 marks.

Question No. 1

The resolution of a full HD is

Options :

1. 800 X 600 pixels
2. 1024 X 768 pixels
3. 1920 X 1080 pixels
4. 768 X 576 pixels

Question No. 2

The frame rate of PAL video is

Options :

1. 24 fps
2. 25 fps
3. 30 fps
4. 8 fps

Question No. 3

HDMI stands for

Options :

1. High Density Material Interface
2. High Dimension Material Interface
3. High Definition Multimedia Interface
4. High Definition Material Interface

Question No. 4

The Director of the recent animation film "Arjun the warrior prince" is

Options :

1. Arnab Chaudhuri
2. Anurag Kashyap
3. Arnab De
4. Karan Johar

Question No. 5

The ratio of horizontal dimension to vertical dimension for "wide screen" format is likely to be:

Options :

1. 4:3
2. 4:4
3. 16:9
4. 16:12

Question No. 6

The character belongs to which comic strip ?



Options :

1. Garfield
2. Tommy
3. Black stripe
4. Harfield

Question No. 7

The partial view of a common car is shown below. Identify the car.



Options :

1. New Wagon R
2. Zen Estilo
3. Santro
4. Spark

Question No. 8

Several Fonts are shown below. Identify the one that can be used for Invitation Cards for a joyous occasion.



Options :

1. A
2. B
3. C
4. D

Question No. 9

Identify the Pictogram for swimming in London Olympics 2012



Options :

1. A
2. B
3. C
4. D

Question No. 10

A reflected image is shown below, Identify the reflective surface.



Options :

1. Concave surface
2. Convex surface
3. Cylindrical surface
4. Conical surface

Question No. 11

The Rear view mirror of a car is

Options :

1. Concave Mirror
2. Convex mirror
3. Plain mirror
4. None of these

Question No. 12

Mary Kom is associated with

Options :

1. Wrestling
2. Kung Fu
3. Karate
4. Boxing

Question No. 13

Among the objects that have equal length, breadth and height, the least surface area is of

Options :

1. Sphere
2. Cube
3. Cone
4. Cylinder

Question No. 14

CYMK stands for

Options :

1. Coronary Multiple Yield Ketosis
2. Cyan, Magenta, Yelow, Black
3. Crimson, Magenta, Yelow, Kala
4. Cartoon Memory Yielding Knowledge

Question No. 15

In a computer, what will be the resultant colour if you use the following combination: R = 100, G = 100, B = 100.

Options :

1. Black
2. White
3. Gray
4. Yellow

Question No. 16

Identify the animal from the skin texture



Options :

1. Giraffe
2. Tiger
3. Zebra
4. Cheetah

Question No. 17

Identify the object shown in the image

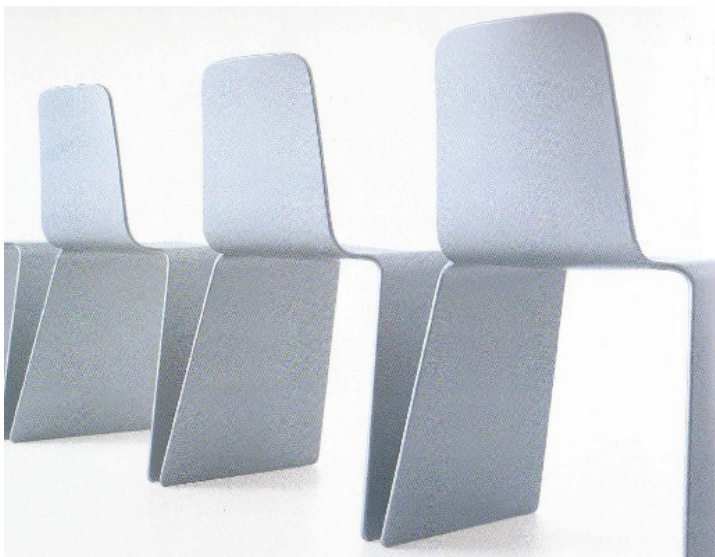


Options :

1. Tibetan prayer wheel
2. Wind Chime
3. Chinese musical instrument
4. Bell for monkey dance

Question No. 18

An image of a chair is shown below. Identify the material most suited for its manufacture.



Options :

1. Steel
2. Plastic
3. Laminated wood
4. Cast iron

Question No. 19

Identify the state to which this head gear belongs to



Options :

1. Bihar
2. Kerala
3. Rajasthan
4. West Bengal

Question No. 20

Blue Tooth stands for

Options :

1. Damaged tooth turned blue
2. Tooth of Blue Whale
3. Wireless navigation system
4. Wireless communication system

Question No. 21

Identify the type of lens used to shoot the photograph shown here.



Options :

1. Fish eye lens
2. Wide angle lens
3. Tele lens
4. Zoom lens

Question No. 22

Identify the product in the photograph.



Options :

1. Ironing box
2. Carpet Cutter
3. Gardening tool
4. Surgical tool

Question No. 23

Identify the Musical instrument shown below



Options :

1. Sitar
2. Tanpura
3. Sarod
4. Rudra Veena

Question No. 24

Identify the oldest camera from the picture



A



B



C



D

Options :

1. A
2. B
3. C
4. D

Question No. 25

A flat belt pulley has a circumference of 40 cms and turns at 60 rpm. It rotates another pulley of 1.2 meters circumference through a belt having 7.2 meters in length. If driven pulley has revolved 600 times, what is the time that the driver pulley rotated?

Options :

1. 20 minutes
2. 30 minutes
3. 40 minutes
4. 120 minutes

Question No. 26

A boat is crossing a wide river flowing at 8 km/hr from east to west. The landing port is exactly opposite the starting point in the north bank of the river. If the boat moves at 10 km/hr towards other bank and crosses the river, what is the width of the river?

Options :

1. 6 km
2. 8 km
3. 10 km
4. 1.8 km

Question No. 27

Local time of a place is related to the value of.

Options :

1. Latitude of the place
2. Longitude of the place
3. Height of the place from mean sea level
4. Distance from the equator

Question No. 28

Find the odd object out.

Options :

1. Sphere
2. Tetrahedron
3. Cube
4. Cylinder

Question No. 29

The front and rear wheels of a tractor have different diameters in the proportion of 1:2 ratio. What will be the speed of the front wheel, if the rear wheel moves at 40 km/hr on road ?

Options :

1. 80 km/hour
2. 40 km/hour
3. 60 km/hour
4. 120 km/hour

Question No. 30

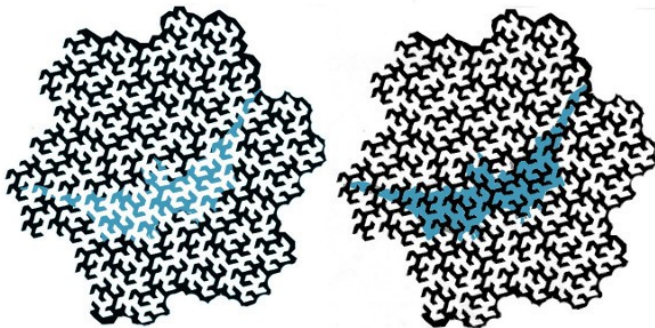
A pilgrim is climbing to a temple at top of a conical hill . The hill has equal slope from bottom to top and is 800 meters high from it's base. The pilgrim covered the climb at the rate of 2 km/hour in half an hour. What will be the diameter of the base of the hill ?

Options :

1. 1800 meters
2. 1600 meters
3. 600 meters
4. 1200 meters

Question No. 31

Observe the two fractal patterns given below and the patch of color in them.

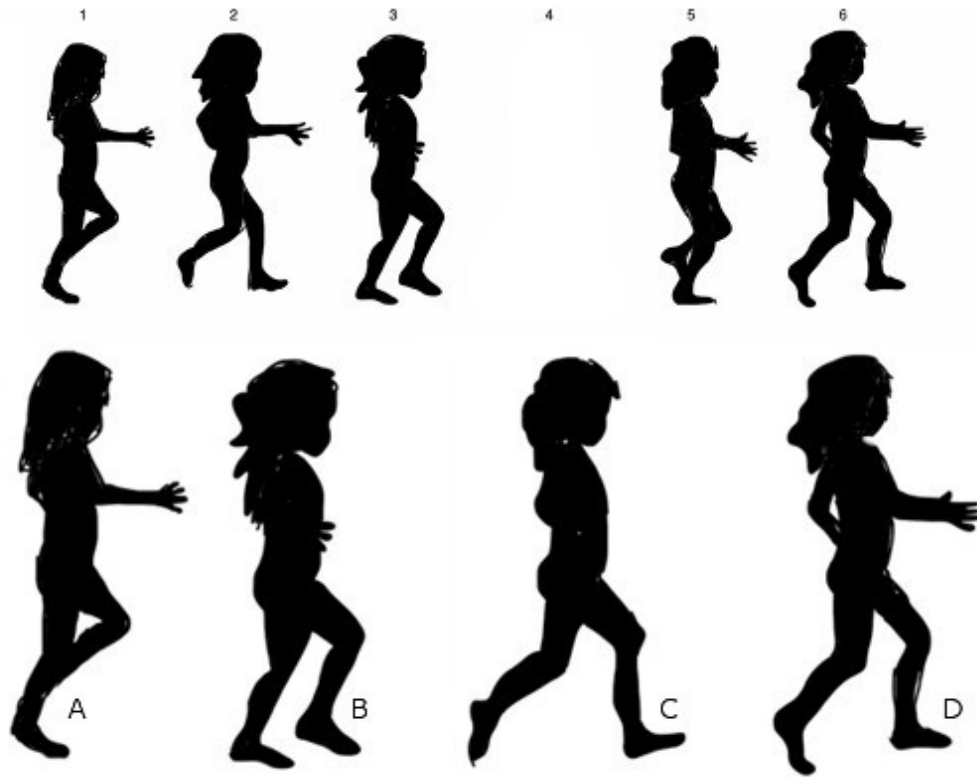


Options :

1. The patch of color in the left hand pattern is darker
2. The patch of color in the right hand pattern is lighter
3. Both the patterns have patches of color with the same tone
4. None of the above options

Question No. 32

The sequence of numbered images depicting a walk cycle below, image number 4 is missing. Of the four options given, select the correct image.

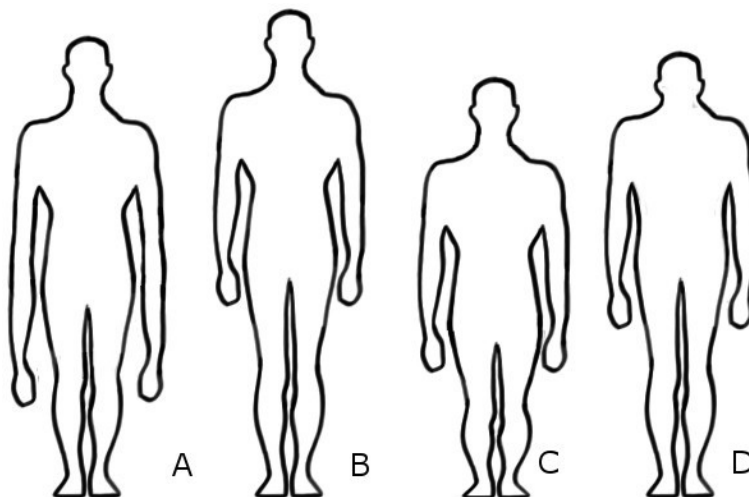


Options :

1. A
2. B
3. C
4. D

Question No. 33

The correct proportion of the human figure is:



Options :

1. A
2. B
3. C
4. D

Question No. 34

Observe the photograph and choose the correct option:



Options :

1. The shutter speed setting was low
2. The shutter speed setting was high
3. There was a camera shake while clicking the picture
4. There was a mistake while saving the image

Question No. 35

A building of 25 meters casts a shadow 15 meters long on the ground. What will be the length of shadow cast by a building 40 meters tall?

Options :

1. 20 meters
2. 24 meters
3. 26 meters
4. 30 meters

Question No. 36

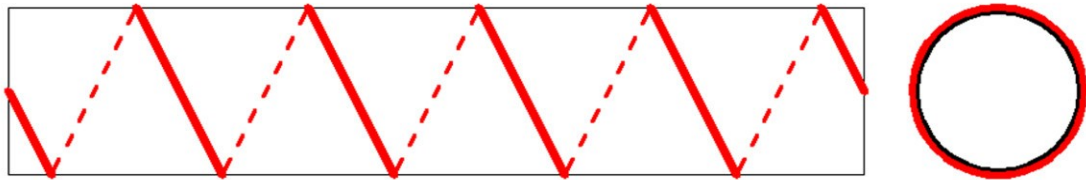
A number of children are standing evenly spaced around a circle. The third child is directly opposite to 28th child. How many children are there altogether?

Options :

1. 48
2. 50
3. 54
4. 56

Question No. 37

A cylinder 15 cms long has a circumference of 4 cms. A string makes exactly 5 turns around the cylinder, while its two ends touch the cylinder top and bottom. How long is the string?



Options :

1. 20 cms
2. 22 cms
3. 25 cms
4. 28 cms

Question No. 38

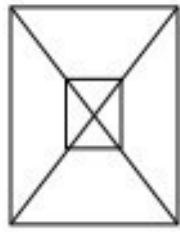
There is a pole in a lake, one half of the pole is buried in soil, another one third is submerged in water, and 2 meters is out of the water. What is the total length of the pole?

Options :

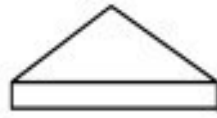
1. 10 meters
2. 12 meters
3. 14 meters
4. 18 meters

Question No. 39

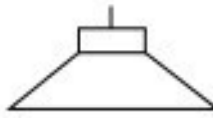
The figure "A" here is a plan view drawing of one of the objects shown in the right. Identify the correct object whose plan view drawing is shown.



A



1



2



3



4

Options :

1. 1
2. 2
3. 3
4. 4

Question No. 40

Identify the aircraft which uses the latest technology



A



B



C



D

Options :

1. A
2. B
3. C
4. D

Question No. 41

Identify the foreign car manufacturer that does not have a manufacturing facility in India?

Options :

1. Nissan
2. Citroen
3. Renault
4. Skoda

Question No. 42

The following product is used as?



Options :

1. Packaging
2. Pillow
3. Fruit basket
4. Paper weight

Question No. 43

The following products are used as?



Options :

1. Hair Clip
2. Key Ring
3. Christmas Decoration
4. Finger Ring

Question No. 44

Which of these torch lights is suitable for a security guard?

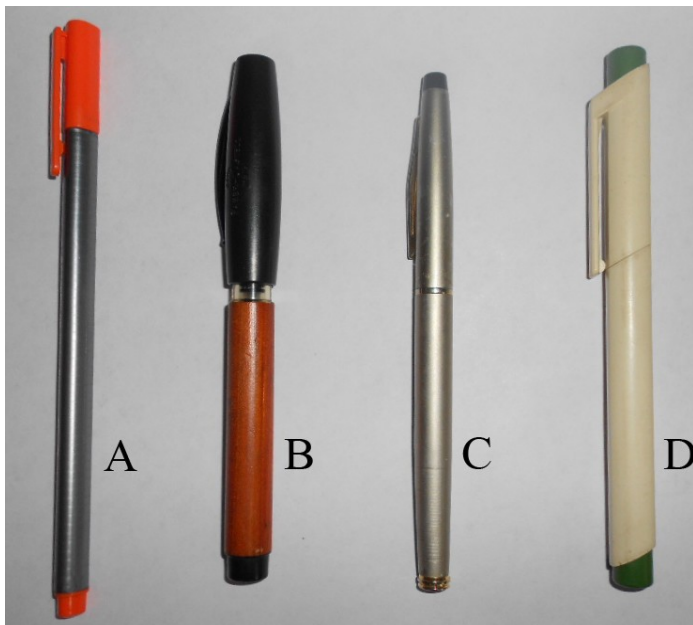


Options :

1. A
2. B
3. C
4. D

Question No. 45

Which of the following pens is sporty?



Options :

1. A
2. B
3. C
4. D

Question No. 46

The following are drawings of different stools. Indicate which one of them is most unstable for sitting.



A

B

C

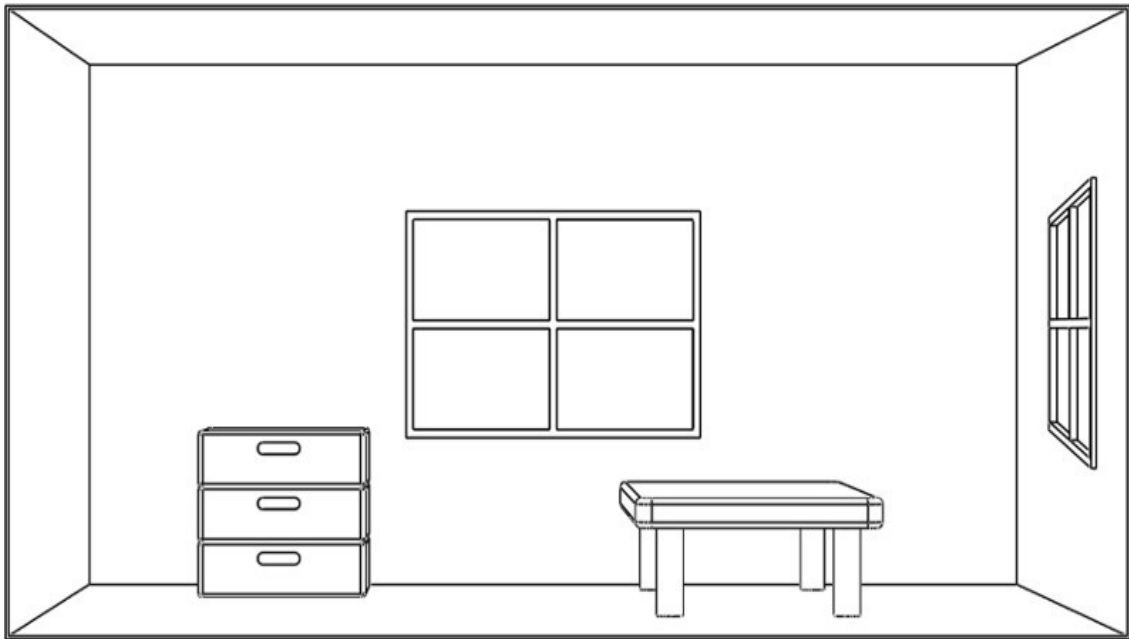
D

Options :

1. A
2. B
3. C
4. D

Question No. 47

Which object or surface in the given figure is/are not in perspective?

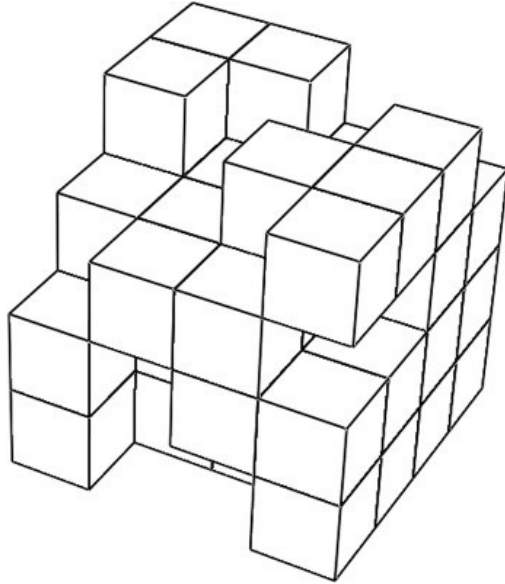


Options :

1. Walls
2. Table
3. Window on the back wall
4. Window on the side wall

Question No. 48

The figure shown below is a composition of cubes of four by four by four matrix. Some of the cubes are removed, but no cubes those are not visible are removed. How many cubes are there in the whole composition?

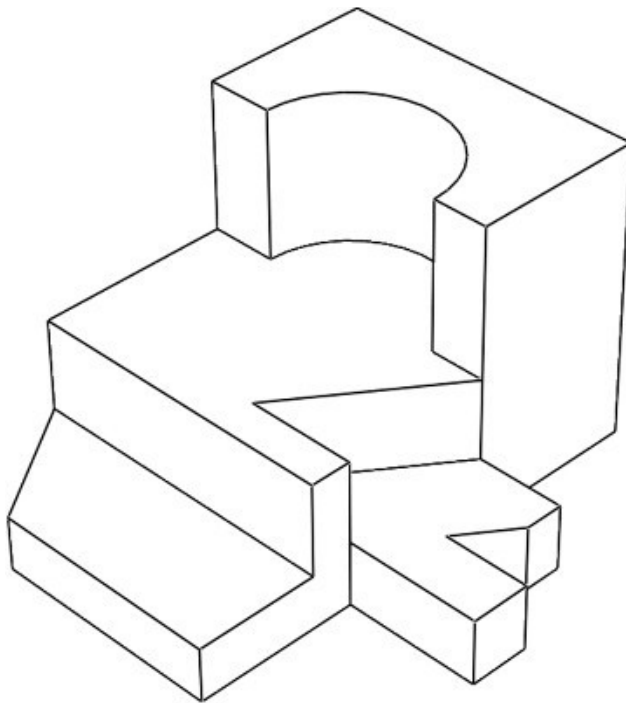


Options :

1. 45
2. 47
3. 49
4. 51

Question No. 49

Count the number of surfaces in the shown solid.

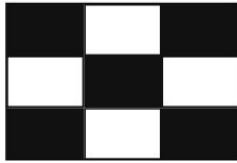


Options :

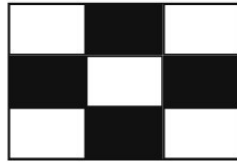
1. 21
2. 23
3. 25
4. 27

Question No. 50

Study the visuals shown here. Select one which you find aesthetically pleasing.



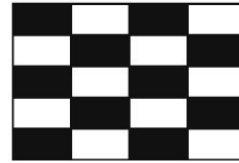
A



B



C



D

Options :

1. A
2. B
3. C
4. D

CEED 2013 Part B Mandatory

Following three questions are mandatory

Question No. 1

Marks 20

Create a freehand sketch of an apple and a bunch of six bananas placed on a dinner plate.

The final drawing is to be done freehand using only pencil. You may use shading to create a realistic three dimensional feel.

Do not use any colour.

Do not use any drawing instrument like ruler, set square, compass etc.

Evaluation criteria:

Perspective

Light, shade and shadow

Quality of lines

Composition

Three Dimensional Quality

Question No. 2

Marks 15

You are given a special magic liquid. You can make anything invisible by spraying this liquid on it. Describe five instances where you will use this liquid in your daily life.

Use a sketch and a brief note (less than 20 words) to describe each answer.

Evaluation criteria:

Originality of ideas.

Ability to imagine.

Sense of humor

Question No. 3

Marks 15

Below is an image of a college canteen in India. Identify five problems in this scenario. Briefly describe the problems (in less than 20 words each).



Evaluation criteria:

- Identification of unique problem.
- Ability to understand the problems.
- Design Sensitivity.

Attempt any one of the following three optional questions.

CEED 2013 Part B Optional (Product Design)

Marks 50

In case of day to day activity in a household, one tedious activity is mopping of the floors. A normal mop cannot reach all the crevices and under the furniture.
Design a manually operated floor mop for domestic use.

1. Identify at least five distinct factors essential for designing a mop that can be used for domestic purpose.
2. Generate three distinct concepts through pencil sketches based on the factors identified above.
Present these pencil sketches along with brief notes (not more than 15 words).
3. Create your final concept and present this through drawings, showing the overall form and design of it's features. Indicate materials to be used for various parts of the mop.

Evaluation criteria:

Identification of distinct factors.
Originality of your alternate concepts.
Appropriateness of your final solution.
Appropriateness of choice of materials.
Quality of presentation

CEED 2013 Part B Optional (Visual Communication)

Marks 50

The following instructions are required to be printed on a medicine packet. Represent visually the given instructions without using any text.

1. One tablet before breakfast at 7:00 AM.
2. One tablet after lunch at 2:00 PM.
3. One and half tablets after dinner at 9:00 PM.
4. Not to be taken by pregnant women

Size of the medicine packet is as follows:

Height: 50mm, Width 200mm, Depth: 50mm.

Your final artwork (total ALL four visuals) should fit into the following size: Height: 40mm, Width 160mm

Explain your design solution in not more than 20 words.

Evaluation criteria:

Ability to communicate clearly using visuals without use of text.
Clarity of visuals.
Quality of renderings.
Overall effectiveness of final design solution.

CEED 2013 Part B Optional (Animation Design)

Marks 50

The crow is the most common bird that we get to see in India. One cannot miss noticing the innumerable deep rooted associations that the crow has in Indian society.

Imagine that you are a crow and narrate your autobiography.

1. Write your story in 5 sentences.
2. Make 3 sketches of the crow in your story in various poses/moods/expressions.
3. Design a storyboard to describe your story in 8 frames.

Evaluation criteria:

Ability to design an interesting character and story.

Quality and finish of drawings.

Originality of the story.

