

CEED 2010

Question Paper



Indian Institute of Technology Bombay

Visual Perception and Design Sensitivity

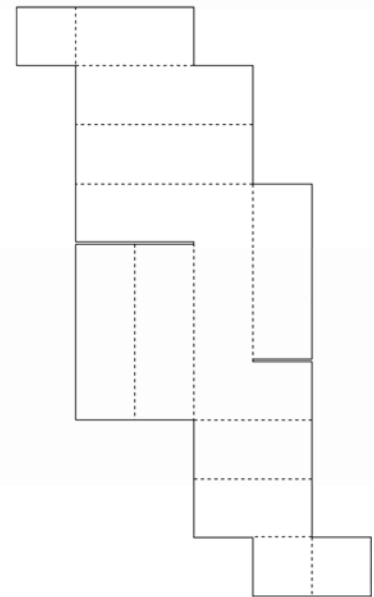
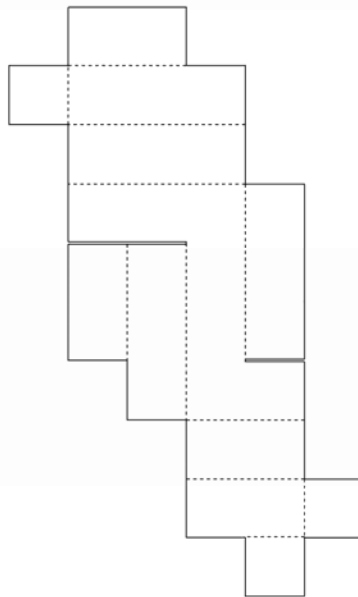
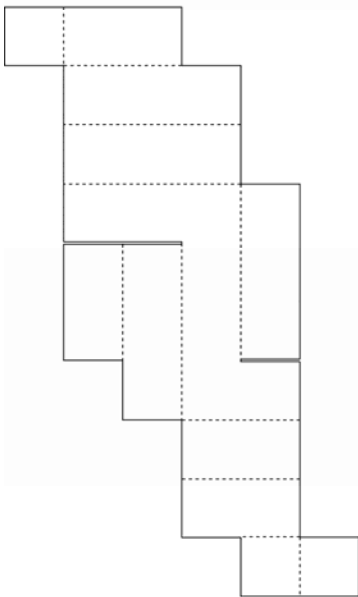
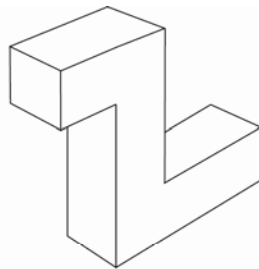
Question 1 (Answer all the questions)

[15 Marks]

1.1

[2 Marks]

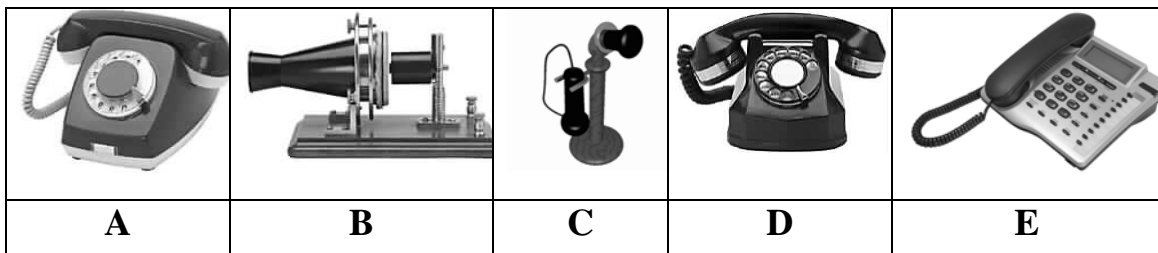
The drawing below shows a **closed box made out of cardboard**. Next to it are **three unfolded (developed) views** of the same cardboard box. Two of these options are correct. Select the **wrong** one by marking **X** in the box provided below.



1.2

[1 Mark]

Below are **5 images of Telephones** that were used across different time periods, placed in a random order. Write down the **correct sequence** of the telephones according to the time scale, from **past to present**, in the box provided below.



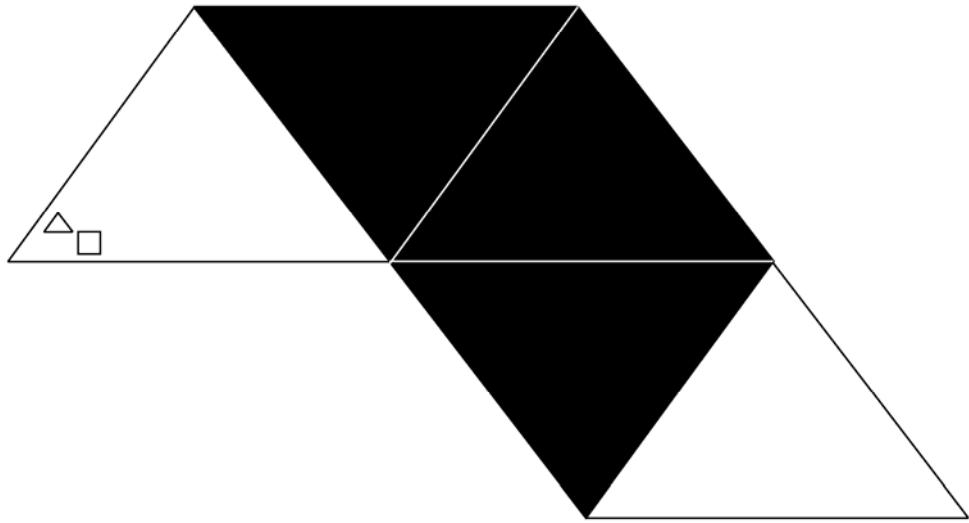
Past > Present

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1.3

[1 Mark]

Below is an image of a **triangle with some pattern** on it. This triangle is mirrored four times as shown below. Draw the **correct position of the pattern** on the last triangle.



1.4

[2 Marks]

Below are images of **different Typefaces** belonging to different families. There are two families comprising of four letters each. **Identify** these letters and write them in the box provided.

A

C

M

H

I

D

B

Z

K

Y

J

N

Q

F

L

P

Family One:

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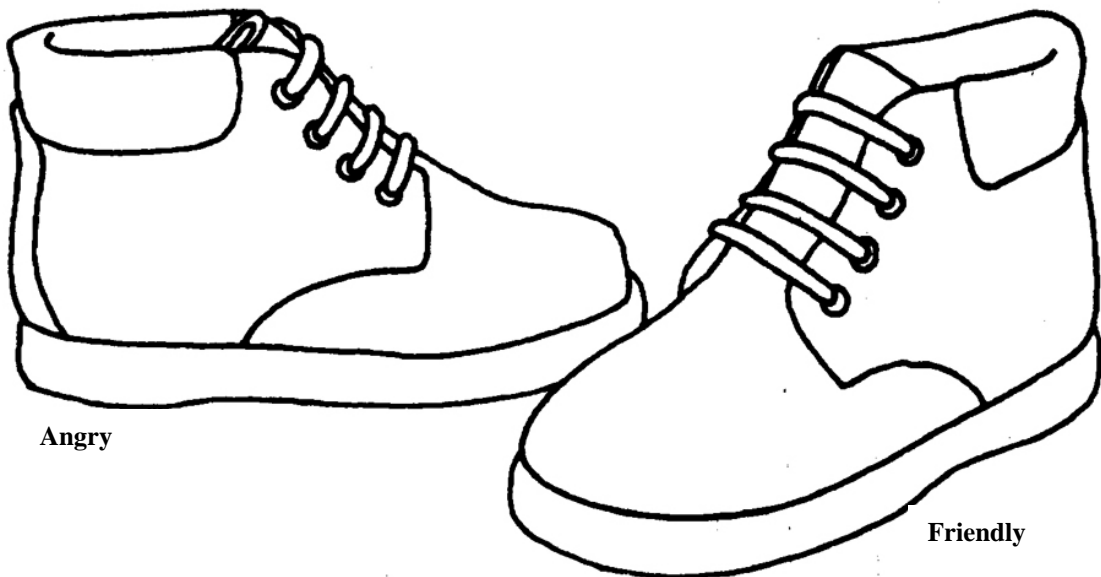
Family Two:

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1.5

[4 Marks]

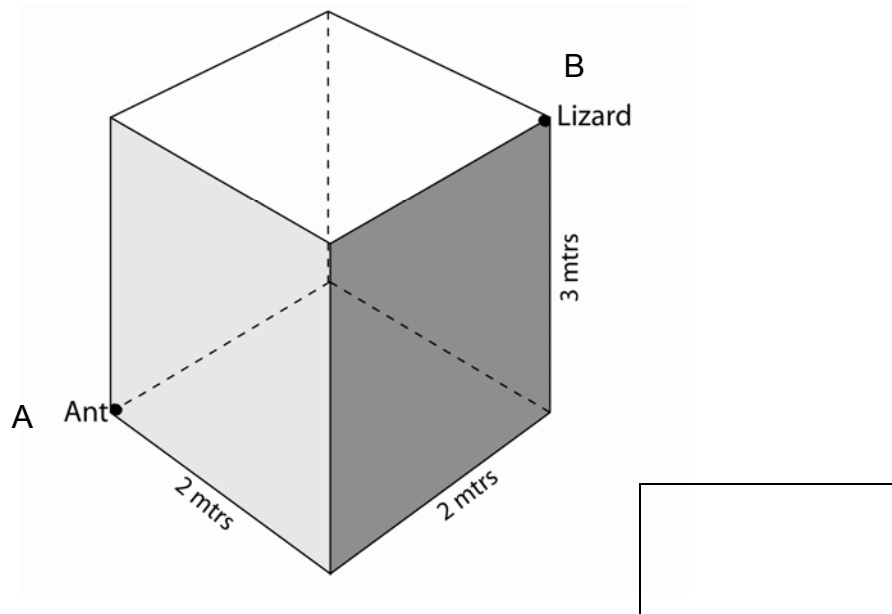
Below is an image of a **pair of Shoes**. Color the shoes to depict the following two expressions – **Angry** on the left shoe and **Friendly** on the right shoe.



1.6

[2 Marks]

Below is schematic diagram of a room 2m long, 2m wide and 3m high. An ant is at position A on the ground and a lizard is at position B on the ceiling. Calculate the **shortest distance** the lizard has to travel to eat the ant. Write the answer in the box provided.

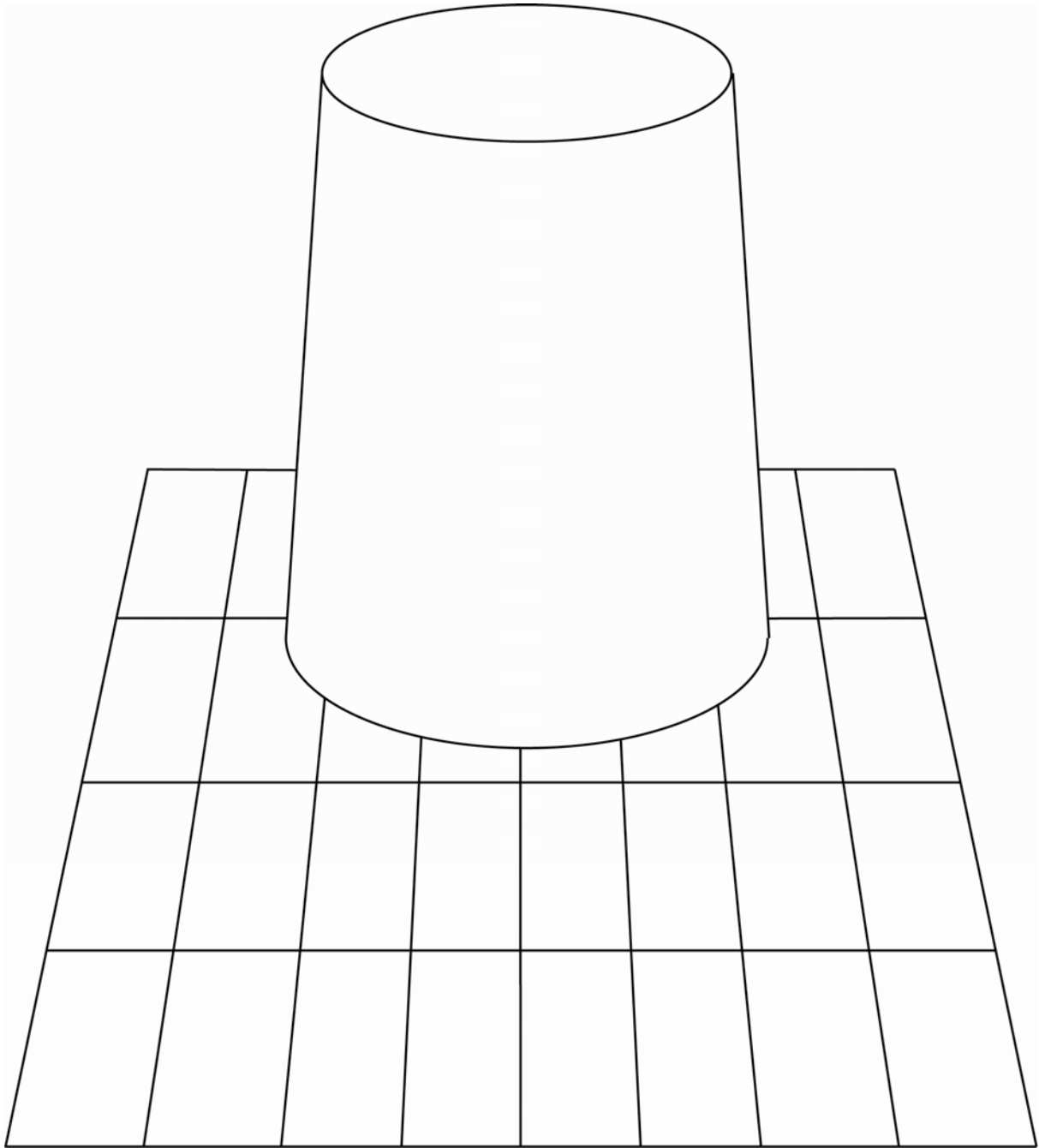


1.7

[3 marks]

Below is an image of a **reflective Steel Tumbler** kept on a table cloth with grid pattern.

Draw the pattern as reflected on the steel tumbler in the image provided



Drawing Abilities and Skills

Question 2

[20 Marks]

Illustrate in perspective, a composition with a **CUP**, **SAUCER** and a **SPOON** placed on a flat surface. The Cup is made of **Rubber**, the saucer is made of **Glass** and the spoon is made of **Wood**.

The drawing needs to be done in **Freehand** using **Black Pencil**. (Do not use any drawing instruments)

Evaluation criteria:

1. Composition and correctness of perspective [5 marks]
2. Quality of surface representation through shading [5 marks]
3. Quality of lines [5 marks]
4. Correctness of relative proportions [5 marks]

Rough Work

Final Drawing

Creativity I

Question 3

[10 Marks]

Imagine **five distinct uses** of discarded **Compact Disc (CD)**.

The CD's can be cut, bent, pasted or used in multiples to execute your ideas.

Represent your ideas with **five neat sketches** along with **brief notes** (if necessary) in the space provided.

Evaluation criteria:

1. Originality of ideas

Sketch 1

Notes.....
.....
.....

Sketch 2

Notes.....
.....
.....

Sketch 3

Notes.....
.....
.....

Sketch 4

Notes.....

.....

.....

Sketch 5

Notes.....

.....

.....

Problem Identification and Analysis

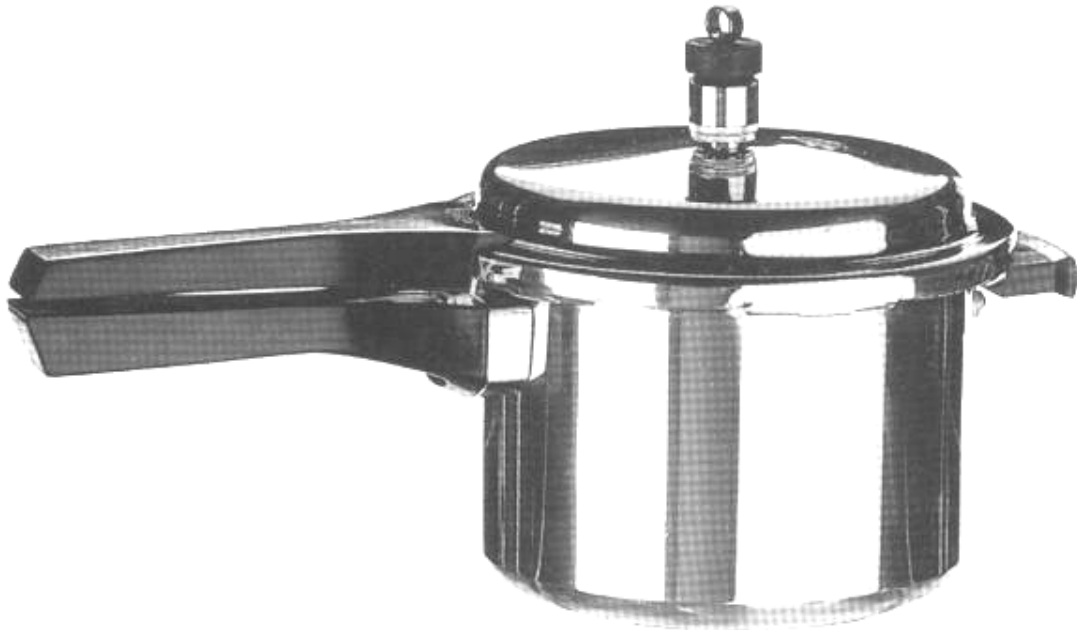
Question 4

[20 Marks]

Answer any one of the following questions **A** or **B** irrespective of the discipline you wish to pursue.

[A]

Below is an image of a **Pressure Cooker** commonly used in the Indian households.



Identify five unique problems from the **point of view of the users**.

- a. **Write** these unique problems briefly in the space provided.
- b. **Briefly justify** each of these problems in the space provided.
- c. **Illustrate a solution** for each of the identified problems with a sketch in the space provided.

Evaluation criteria:

1. Identification of unique problems and proper justification [10 marks]
2. Appropriateness of your solutions [10 marks]

OR

[B]

Below is an image of a typical **Railway Platform** in India.



Identify five unique communication design related problems from the point of view of the users.

- a. Write these unique problems briefly in the space provided.
- b. Briefly justify each of these problems in the space provided.
- c. Illustrate a solution for each of the identified problems with a sketch in the space provided.

Evaluation criteria:

1. Identification of unique problems and proper justification [10 marks]
2. Appropriateness of your solutions [10 marks]

Problem Identification

.....
.....

Justification.....
.....

Sketch

Problem Identification

.....
.....

Justification.....
.....

Sketch

Problem Identification

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Justification.....

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Sketch

Problem Identification

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Justification.....

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Sketch

Problem Identification

.....
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Justification.....
.....

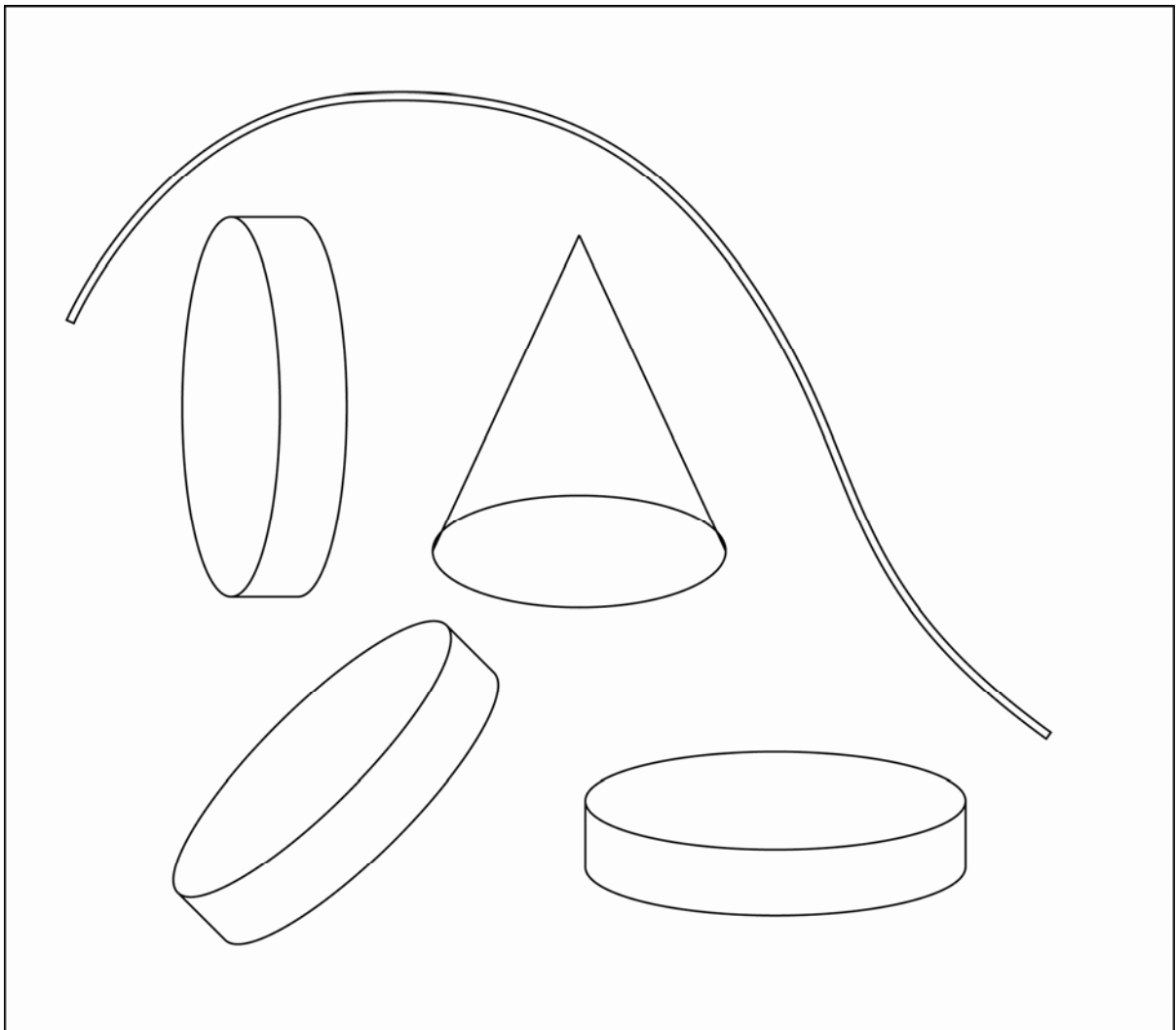
Sketch

Creativity II

Question 5

[10 Marks]

You have at your disposal the following five objects – **1 Cone, 3 Discs and 1 flexible Wire** as given below.



Imagine **five interesting products** made out of a combination of all five objects. You can scale the objects to any size or dimension.

Represent your ideas with **neat sketches, name them** along with **brief notes** (if necessary) in the space provided

Evaluation criteria:

Originality of Ideas

Sketch

Name of the Product

Brief Note

.....
.....

Sketch

Name of the Product

.....

Brief Note

.....

.....

Sketch

Name of the Product

.....

Brief Note

.....

.....

Sketch

Name of the Product

.....

Brief Note

.....

.....

Sketch

Name of the Product

.....

Brief Note

.....

.....

Design Problem Solving

Question 6

[25 Marks]

Answer any one of the following questions A or B or C irrespective of the discipline you wish to pursue.

[A]

Problem Area: Product Design / Interaction Design

In the world of the **Visually Impaired (Fully Blind)**, there is a need to equip them with special products that will help them carry out their day to day activities with an ease. One such product is a pair of scissors, which can be used for cutting liquid pouches, cloth, paper, etc.

Your task here is to **Design a new pair of Scissors** for the visually impaired. You can make use of new technologies (if needed).

a. Identify at least **five distinct factors** essential for designing a pair of scissors for the blind. Write this briefly in the space provided.

b. Generate at least **three concepts** through pencil sketches based on the factors identified above. Present these **pencil sketches** along with **brief notes** (if necessary) in the space provided.

c. Synthesize your **final concept** and present this through drawing, showing the overall form and its construction details, mentioning the materials, in the space provided.

Evaluation criteria:

1. Identification of distinct factors [5 marks]
2. Novelty of your alternate concepts [5 marks]
3. Appropriateness of your final solution [10 marks]
4. Quality of your presentation [5 marks]

Answer A

Five distinct factors

1.....
.....

2.....
.....

3.....
.....

4.....
.....

5.....
.....

Three Concepts

Sketch

Brief Note

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.....
.....

Sketch

Brief Note

.....
.....
.....

Sketch

Brief Note

.....
.....
.....

c. Final concept

Brief Note

.....
.....

Material.....
.....

[B]

Problem Area: Communication Design

Influenza-A (H1N1), also known as the Swine Flu virus is a new influenza virus causing illness in people. This virus is contagious and spreads rapidly.

Your task here is to **Design a new Symbol** to capture the essence of this disease. You can make use of Text, Graphics or both.

a. Identify at least **five distinct factors** essential for representing the disease. Write this briefly in the space provided.

b. Generate at least three concepts through pencil sketches, taking into consideration the factors identified above. Make these **pencil sketches** along with **brief notes** (if necessary) in the space provided.

c. Synthesize your **final concept** and present this through drawing. You may use colours, if necessary.

d. **Design a poster** to create awareness about this disease among **school children**. You need to make use of your final symbol in the design of the poster. Present this in the space provide along with brief notes (if necessary).

Evaluation criteria:

1. Identification of Distinct Factors [5 marks]
2. Novelty of your alternate concepts [5 marks]
3. Appropriateness of your final symbol [5 marks]

4. Clarity of your final poster design [10 marks]

Answer B

Five distinct factors

1.....
.....

2.....
.....

3.....
.....

4.....
.....

5.....
.....

Three Concepts

Sketch

Brief Note

.....
.....
.....

Sketch

Brief Note

.....
.....
.....

Sketch

Brief Note

.....
.....
.....

c. Final Symbol

Brief Note

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.....

.....

d. Poster Design

Brief Note

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.....
.....

[C]

Problem Area: Animation Design

Drought is major problem faced by our country. This is going to effect our agricultural sector badly and would have a negative impact on our national economy.

Create a **comic strip of five key frames** involving a **Farmer, Politician and God** with the use of text and images.

- a. Make at least **three alternate sketches** for each of the characters in the space provided.

- b. Represent your storyboard in **five key frames** in the space allotted. If necessary, you can make use of colours.

Evaluation criteria:

1. Appropriate portrayal of the characters [10 marks]
2. Originality of your storyboard (text and images) [10 marks]
3. Quality of your presentation [5 marks]

Answer C

a. Three alternate sketches

Character 1. Farmer

Character 2. Politician

Character 3. God

b. Storyboard

b. Storyboard

b. Storyboard

[Rough Work]

[Rough Work]

[Rough Work]

[Rough Work]

INSTRUCTIONS TO CANDIDATES:

Read these instructions carefully.

1. ■ Write your name, CEED Registration number and the Examination Centre in the space provided on the cover page of this answer book.
■ Make sure that you sign in the space provided on the cover page.

■ Entering your name or registration number anywhere else (other than in the space provided on the cover page) is strictly forbidden.

■ No distinctive mark of any sort is to be put anywhere in the answer book.

■ Violation of these instructions or adoption of malpractices in the examination hall will lead to disqualification.

2. Write your answers ONLY IN ENGLISH.
3. Write or draw your answers only in the space provided for each question.
4. Space for rough work has been provided at the end of this booklet.
This should be used for **ROUGH WORK ONLY**. DO NOT DETACH any of these pages.
5. DO NOT REMOVE ANY SHEET from this answer book.
6. Before leaving the examination hall, submit this question-cum-answer paper to the invigilator.