

CEED

Design Drawing & Writing Skills

Sample Paper — 7

Duration: 105 Minutes | Maximum Marks: 100

General Instructions

1. This paper constitutes **Part B** of CEED and tests drawing, design, visual composition, sequential narration, and written communication skills.
2. All five questions are **compulsory**. Attempt every question even if partially; annotated, incomplete answers score better than blank pages.
3. Use only **black or dark-blue pen, pencil, or fine-liner** for drawings. Coloured media are *not* permitted unless the question explicitly allows them.
4. Manage your time carefully. Suggested time allocations are printed with each question; adhere to them to complete the full paper.
5. Write your answers **within the designated answer spaces**. Drawings or text outside the bordered area will not be evaluated.
6. **No negative marking** applies in this section. Do not leave any question entirely blank.



Question 1

[25 Marks | Suggested Time: 22 min]

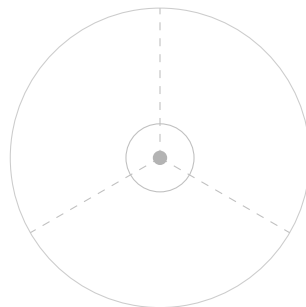
Freehand Drawing — Ceiling Fan

Draw a standard domestic **ceiling fan with three blades and a central motor housing** from memory. Produce all three of the following views:

- Top plan view** (looking *up* at the fan from below) — show the full blade span, the pitch angle of each blade, the central motor canopy, and a light kit if present.
- Front elevation view** — show the blades in profile, motor housing, downrod, and ceiling canopy.
- 3D three-quarter perspective** — show the fan mounted on a ceiling with visible light and shadow on at least one blade.

Labels: Identify at least **5 parts** from the following list: blade, blade iron/bracket, motor housing, downrod, ceiling canopy, pull chain, light kit.

Reference guide below — use the radial template to ensure even 120° blade spacing in your plan view.



Radial Guide (3-Blade Fan — Top View)

Answer Space — Q1 (all three views and labels):

Evaluation Criteria

Criterion	Marks
Top plan view and front elevation with plausible proportions	6
3D perspective sketch recognisable as a ceiling fan	7
Light and shadow rendered on at least one blade	4
Five or more structural parts correctly labelled	5
Line quality and overall visual clarity	3
Total	25

Note: Deduct 2 marks if fewer than three views are present.



Question 2

[20 Marks | Suggested Time: 20 min]

Product Design — Foot-Pedal Dual-Bin Waste Segregator

Design a **compact, foot-pedal-operated dual-bin waste segregator** for urban kitchens. The unit must segregate *wet/organic waste* from *dry/recyclable waste*, fit under or beside a kitchen counter, and allow the user to open the correct bin lid entirely without using their hands.

- (a) **3D three-quarter sketch** of the complete two-bin unit — show both foot pedals (one per bin), the two lids, and any carrying handle.
- (b) **Mechanism detail sketch** — illustrate how a single foot pedal connects to the lid it controls (cam, lever arm, or cable/Bowden arrangement). Annotate the mechanical linkage with component names.
- (c) **Annotations** — specify materials throughout (e.g., stainless-steel body, ABS plastic lid, silicone gasket seal) and state approximate overall dimensions (H × W × D).

Answer Space — Q2 (3D sketch, mechanism detail, and annotations):



Evaluation Criteria

Criterion	Marks
3D three-quarter sketch shows two-bin unit with foot pedals and lids	5
Mechanism detail sketch shows pedal-to-lid linkage clearly	5
Materials annotated throughout	5
Approximate overall dimensions indicated (H × W × D)	2
Design is plausibly foot-operated and hygienic (no hand contact needed)	3
Total	20



Question 3

[20 Marks | Suggested Time: 20 min]

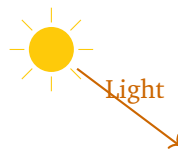
Visual Composition — Deforestation and Biodiversity Loss

Create a **single-frame poster** that communicates the theme “*Deforestation and Biodiversity Loss*” using **image alone** — **no text may appear inside the picture frame**.

Compositional requirements:

- The **dominant element** must be a large tree silhouette that transitions from *lush, full foliage* on one side to a *bare, chopped trunk* on the other.
- Include **at least three animal or bird silhouettes** that appear to be fleeing or displaced from the tree.
- Use **value contrast** deliberately: dense dark marks for the lush side vs. stark white / empty space for the cleared side. This contrast should be the primary design device.

Light direction reference below — use this to place shadows consistently on the tree and figures.



Light Direction Reference

Answer Space — Q3 image (no text inside the frame):

Composition intent statement (2–3 sentences, written below the image):

Answer Space — Q3 written statement:



Evaluation Criteria

Criterion	Marks
Theme (deforestation/biodiversity loss) communicated without text	6
Tree silhouette transitions from lush to bare clearly	4
At least 3 animal/bird silhouettes present	4
Value contrast used deliberately and effectively	3
Composition intent statement (2–3 sentences) is relevant and clearly written	3
Total	20



Question 4

[20 Marks | Suggested Time: 20 min]

Sequential Storyboard — A Child and a Butterfly

Draw a **6-panel storyboard** for the following scenario:

Panel 1: A child spots a butterfly in a garden.

Panel 2: The child follows the butterfly through flower beds.

Panel 3: The butterfly settles on a flower; the child watches quietly.

Panel 4: The child tries to cup the butterfly gently in both hands.

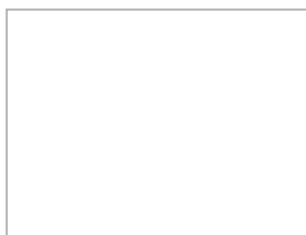
Panel 5: The butterfly escapes and flies away.

Panel 6: The child smiles and sketches the butterfly in a notebook.

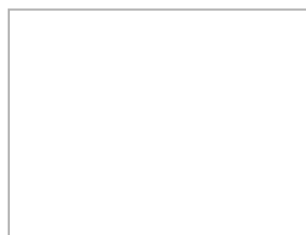
Requirements per panel:

- Show the child silhouette, the butterfly, and at least one garden/flower environment cue.
- Write a caption of **10 words or fewer** below each panel border.

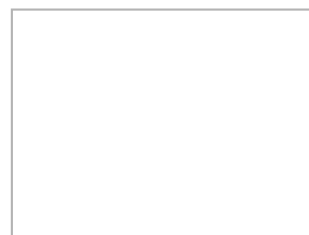
Use the 2×3 grid below as your storyboard template.



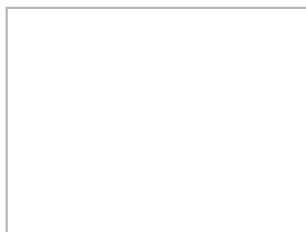
Panel 1



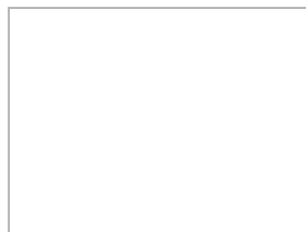
Panel 2



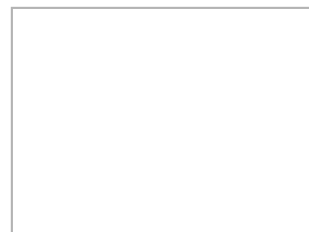
Panel 3



Panel 4



Panel 5



Panel 6

Caption notes (if additional space is needed beyond the grid above):



Evaluation Criteria

Criterion	Marks
All 6 panels present with clear borders	3
Logical and coherent narrative sequence	4
Characters and environment cues identifiable in each panel	5
Captions of 10 words or fewer for each panel	4
Overall visual storytelling quality and expressiveness	4
Total	20



Question 5

[15 Marks | Suggested Time: 15 min]

Writing Task — Typeface Selection in Public Transport Signage

Prompt: “Why is typeface selection critical in public transport signage and wayfinding systems?”

Write approximately **150 words** in continuous paragraphs (bullet points are *not* accepted). Your response must:

1. Identify **2–3 specific readability or accessibility challenges** unique to transit environments (consider: speed of passing, reading distance, low-light conditions, and the diversity of users including non-native readers and people with visual impairments).
2. Propose a **concrete typeface selection principle or example** — for instance, the use of humanist sans-serif faces, high x-height, open counters, or the deliberate avoidance of high stroke-contrast letterforms in signage contexts.

Answer Space — Q5 (continuous paragraphs only):



Evaluation Criteria

Criterion	Marks
Identifies 2–3 specific readability/accessibility challenges in transit signage	4
Proposes a concrete typeface selection principle or example	5
Well-organised paragraph structure (bullet points not accepted)	3
Grammar, vocabulary, and clarity of expression	3
Total	15

Total Marks: 100 | No Negative Marking

Attempt all questions. Annotated, partially complete answers score better than blank pages.

