

NID DAT

Complete Sample Paper – 4

Duration: 150 Minutes

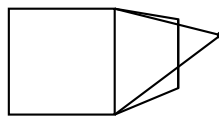
Maximum Marks: 100

Instructions

- This paper contains **50 Visual MCQs (Part A)** and **5 Drawing Tasks (Part B)**, modelled on NID DAT 2026 Prelims.
- **Part A:** Each correct answer carries **+1 mark**. There is **no negative marking**.
- **Part B:** Each drawing task carries **10 marks**; marks are awarded for design thinking, form, composition, and visual communication.
- **Total: 100 marks | Duration: 150 minutes**
- For Part A only one option is correct; for Part B all answers are open-ended sketches.
- Drawing tools allowed for Part B only. No electronic gadgets.

Part A: Visual MCQs — 50 Marks

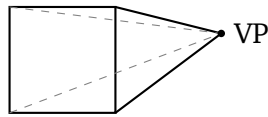
Q1. The diagram below shows a box drawn in one-point perspective. Which option correctly identifies the vanishing point location?



- (A) At the bottom-left corner of the front face
- (B) At the top-left corner of the front face
- (C) At the centre of the front face
- (D) At the right end of the horizon line, where all receding lines converge

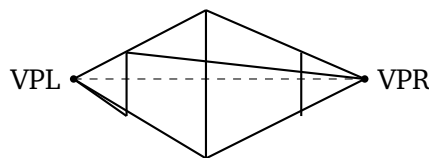
Q2. In one-point perspective, as an object moves farther from the viewer along the line of sight, how do horizontal lines that recede into the distance behave?





- (A) They remain parallel to the picture plane
- (B) They converge toward a single vanishing point on the horizon
- (C) They diverge away from the horizon line
- (D) They curve upward as distance increases

Q3. In a two-point perspective drawing of a rectangular box, how many vanishing points are used, and where are they placed?



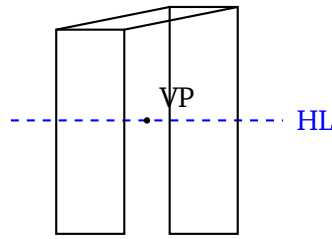
- (A) One vanishing point, placed at the centre of the drawing
- (B) Two vanishing points, both placed below the horizon line
- (C) Two vanishing points, both placed on the horizon line, one to each side
- (D) Three vanishing points, one above and two below the horizon line

Q4. A pencil is held pointing directly toward the viewer. Which of the following best describes the appearance of the pencil due to foreshortening?

- (A) The pencil appears much shorter than its actual length; only the tip is clearly visible
- (B) The pencil appears longer and thinner than its actual form
- (C) The pencil appears to curve toward the vanishing point
- (D) The pencil appears identical to its side view

Q5. A designer is drawing a street scene from a worm's-eye view. Where should the horizon line be placed relative to the scene?



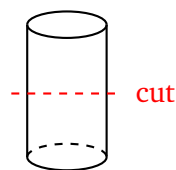


- (A) At eye level for a standing adult — approximately in the middle of the picture
- (B) At the very top of the picture plane, representing a bird's-eye view
- (C) Well above the tops of all depicted objects
- (D) Very low in the picture, near the bottom, so that objects loom above the horizon

Q6. In two-point perspective, which set of edges of a rectangular box remains perfectly vertical (neither converging nor diverging)?

- (A) All horizontal top and bottom edges
- (B) The vertical corner edges of the box
- (C) The diagonal edges running toward the left vanishing point
- (D) The diagonal edges running toward the right vanishing point

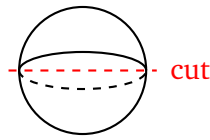
Q7. A solid cylinder is cut by a horizontal plane parallel to its base. What shape does the cross-section reveal?



- (A) Rectangle
- (B) Triangle
- (C) Circle
- (D) Ellipse

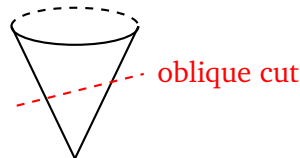
Q8. A solid sphere is cut by any plane passing through its centre. What is the shape of the resulting cross-section?





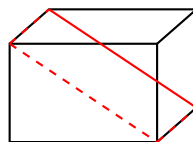
- (A) A circle whose diameter equals that of the sphere
- (B) An ellipse with the major axis equal to the sphere diameter
- (C) A semicircle
- (D) A rectangle

Q9. A right circular cone is cut by a plane that is neither parallel nor perpendicular to its base, and does not pass through the apex. What is the resulting cross-sectional shape?



- (A) Circle
- (B) Parabola
- (C) Hyperbola
- (D) Ellipse

Q10. A rectangular prism (cuboid) is cut by a diagonal plane that passes through two opposite edges (one top edge and the opposite bottom edge). What cross-section is produced?



- (A) Square
- (B) Rectangle (or parallelogram)
- (C) Triangle
- (D) Trapezoid



- Q11.** A torus (doughnut shape) is cut by a plane that passes through its central axis. What is the cross-sectional shape?
- (A) A single circle
 - (B) An ellipse
 - (C) Two separate circles (one for each tube wall on either side of the axis)
 - (D) A rectangle with rounded corners
- Q12.** A triangular prism lying on its rectangular face is cut by a plane parallel to its triangular end faces. What does the cross-section look like?
- (A) A triangle congruent to the end faces
 - (B) A rectangle
 - (C) A trapezoid
 - (D) A hexagon
- Q13.** The image below shows a classic figure-ground ambiguity. What Gestalt principle does this demonstrate?

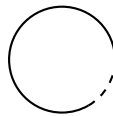


- (A) Proximity
 - (B) Similarity
 - (C) Closure
 - (D) Figure-Ground
- Q14.** In the dot arrangement below, viewers immediately perceive two distinct groups rather than eight individual dots. Which Gestalt principle explains this?



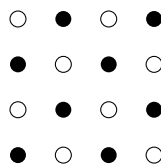
- (A) Continuity
- (B) Proximity
- (C) Closure
- (D) Similarity

Q15. A viewer sees the figure below and immediately perceives a complete circle even though the arc is broken. Which Gestalt principle is at work?



- (A) Proximity
- (B) Similarity
- (C) Closure
- (D) Continuity

Q16. In the grid below, the filled circles are perceived as forming a diagonal pattern distinct from the empty circles. Which Gestalt principle causes this?



- (A) Similarity
- (B) Proximity
- (C) Figure-Ground
- (D) Closure

Q17. Two curved lines cross each other in the centre of a composition. Viewers naturally follow each curve as a continuous path rather than seeing them as two V-shapes meeting at a point. Which principle explains this?

- (A) Closure

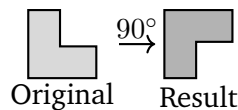


- (B) Proximity
- (C) Similarity
- (D) Continuity

Q18. A flock of birds all moving in the same direction is perceived as a unified group. Which Gestalt principle best describes this perception?

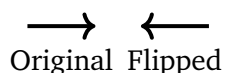
- (A) Closure
- (B) Common Fate
- (C) Proximity
- (D) Figure-Ground

Q19. The L-shaped motif shown is rotated 90° clockwise. Which option correctly shows the result?



- (A) The tall vertical arm moves to point left; the short arm points down
- (B) The motif appears identical to the original (no visible change)
- (C) The tall vertical arm rotates to become a horizontal arm pointing right; short arm points up
- (D) The motif is reflected horizontally

Q20. An asymmetric arrow motif → pointing to the right is flipped horizontally. What does the result look like?

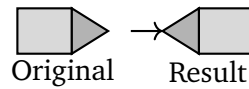


- (A) An arrow pointing to the left
- (B) An arrow pointing upward
- (C) The same right-pointing arrow (unchanged)



(D) An arrow pointing downward

Q21. The flag-like motif below (a triangle attached to the right of a rectangle) is rotated 180° . Which description best matches the result?



(A) The rectangle is now on the left and the triangle points right

(B) The motif appears unchanged

(C) The triangle is now on top of the rectangle pointing up

(D) The rectangle is on the right and the triangle now points left

Q22. A square motif with side 2 cm is scaled by a factor of 1.5. What is the area of the scaled motif?

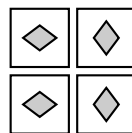
(A) 4 cm^2

(B) 9 cm^2

(C) 6 cm^2

(D) 12 cm^2

Q23. A repeating tile pattern uses a motif that has been rotated 90° for each of four tiles arranged in a 2×2 block. How many unique orientations of the motif appear in the block?



(A) One (all tiles look the same)

(B) Two (alternating orientations)

(C) Four (each tile has a distinct orientation)

(D) Three



- Q24.** Which of the following motifs has exactly two lines of reflective symmetry?
- (A) A rectangle (non-square)
 - (B) An equilateral triangle
 - (C) A regular pentagon
 - (D) A scalene triangle
- Q25.** In a plain weave fabric, how do the warp and weft threads interlace?
- (A) Each weft thread passes over two warp threads, then under two (a 2×2 pattern)
 - (B) Each weft thread passes over three warp threads, then under one
 - (C) Warp threads twist around each other between the weft insertions
 - (D) Each weft thread passes alternately over one warp thread, then under the next, across the full width
- Q26.** Which statement correctly describes the *batik* resist-dyeing technique?
- (A) Fabric is folded, twisted, and bound with string before dyeing to create patterns
 - (B) Hot wax is applied to the fabric to block dye absorption; after dyeing, the wax is removed to reveal a pattern
 - (C) Threads are tie-dyed before weaving to create a blurred, cloud-like pattern in the final cloth
 - (D) Indigo vat dye is applied through a stencil screen onto the fabric surface
- Q27.** Shibori is a Japanese textile dyeing technique. Which of the following best characterises its defining process?
- (A) Screen printing with reactive dyes on flat, unstretched fabric
 - (B) Applying wax resist with a *tjanting* tool before vat dyeing



- (C) Manipulating fabric through folding, twisting, binding, stitching, or clamping before immersion dyeing
- (D) Weaving coloured threads in a supplementary weft to build a raised pattern

Q28. A fashion designer selects a fabric labelled **280 GSM**. What does GSM represent, and what does this value indicate?

- (A) Grams per square metre — the fabric is medium-heavy weight (suitable for outerwear or denim)
- (B) Grams per square metre — the fabric is ultra-lightweight (suitable for chiffon scarves)
- (C) Gauge per stitch measurement — the fabric has 280 stitches per centimetre
- (D) Geometric stitch matrix — defining the thread interlacing pattern

Q29. Denim jeans are made from a **twill weave** fabric. Which visual characteristic is most distinctive of twill weave?

- (A) A checkerboard pattern of alternating colour blocks
- (B) A uniform flat surface with no visible diagonal lines
- (C) A series of horizontal ribs running across the fabric width
- (D) A diagonal rib or line running across the fabric surface

Q30. A fabric sample burns with a smell of burning hair, forms a crushable black ash, and self-extinguishes when removed from flame. Which fibre type is it most likely?

- (A) Polyester
- (B) Wool or silk (protein fibre)
- (C) Cotton or linen (cellulosic fibre)
- (D) Nylon



- Q31.** Which of the 12 principles of animation refers to the deformation of an object to exaggerate the force of impact or movement, maintaining consistent volume throughout?
- (A) Anticipation
 - (B) Follow Through
 - (C) Squash and Stretch
 - (D) Staging
- Q32.** Before a character jumps upward, they first bend their knees and crouch slightly downward. This preparatory action is an example of which animation principle?
- (A) Anticipation
 - (B) Overlapping Action
 - (C) Slow In and Slow Out
 - (D) Secondary Action
- Q33.** After a running character suddenly stops, their hair and coat continue to move forward briefly before settling. This is an example of which principle?
- (A) Anticipation
 - (B) Squash and Stretch
 - (C) Solid Drawing
 - (D) Follow Through and Overlapping Action
- Q34.** A standard film runs at 24 frames per second (fps). An animator produces a walk cycle using “shooting on twos” (each drawing held for 2 frames). How many unique drawings are needed for one second of animation?
- (A) 24 drawings



- (B) 12 drawings
- (C) 8 drawings
- (D) 6 drawings

Q35. In motion design, “ease in” (or “slow in”) means that an animated object:

- (A) Moves at constant speed throughout the animation
- (B) Starts fast and gradually decelerates to a stop
- (C) Starts slowly and gradually accelerates to full speed
- (D) Bounces back and forth before settling

Q36. In digital animation, a **keyframe** is best defined as:

- (A) A frame that defines a significant pose or state; the software interpolates between keyframes to create in-between frames
- (B) Every individual frame rendered in the final animation output
- (C) A frame used exclusively for background art
- (D) A frame that marks the start of each scene cut

Q37. According to universal design and accessibility guidelines (aligned with IS 9926 / ADA standards), the recommended maximum gradient for a wheelchair-accessible ramp is:

- (A) 1:5 (rise to run)
- (B) 1:8 (rise to run)
- (C) 1:10 (rise to run)
- (D) 1:12 (rise to run)

Q38. Tactile ground surface indicators (TGSI) used for visually impaired pedestrians at pedestrian crossings in India are standardised in which colour?

- (A) Red
- (B) Yellow



- (C) White
- (D) Blue

Q39. For text to be legible for people with low vision, WCAG 2.1 Level AA requires a minimum contrast ratio of:

- (A) 2.5:1
- (B) 3.5:1
- (C) 4.5:1
- (D) 7:1

Q40. A standard Braille cell consists of:

- (A) A 2-column, 3-row grid of six raised dots (positions 1–6)
- (B) A 3-column, 3-row grid of nine raised dots
- (C) A single row of four raised dots
- (D) A 2-column, 4-row grid of eight raised dots (Braille Grade 2 only)

Q41. An induction loop (hearing loop) system in a public space is designed to assist:

- (A) Wheelchair users navigating the space
- (B) Visitors with low vision by amplifying lighting
- (C) Visitors with cognitive disabilities by simplifying wayfinding
- (D) People who use hearing aids equipped with a telecoil (T-coil)

Q42. For a universally accessible door handle, which type is recommended over a round knob?

- (A) Recessed pull handle only
- (B) Lever-style handle (horizontal bar)
- (C) Flush-mounted ring pull



(D) Dual-knob handle

Q43. A brand's logo consists solely of the brand name rendered in a distinctive, custom-designed typeface (e.g., *Google* or *Coca-Cola*). This logo type is called a:

(A) Brandmark (pictorial mark)

(B) Lettermark (monogram)

(C) Wordmark (logotype)

(D) Combination mark

Q44. "IBM", "NASA", and "CNN" use logos formed only from initials rendered in a specific typeface. This logo style is known as a:

(A) Lettermark

(B) Wordmark

(C) Emblem

(D) Abstract mark

Q45. In advertising layout, **visual hierarchy** primarily refers to:

(A) The alphabetical ordering of text elements in a design

(B) The uniform sizing of all design elements for consistency

(C) The use of a single typeface throughout all brand communications

(D) The arrangement of design elements so the viewer's eye moves through them in a desired sequence, guided by size, colour, contrast, and placement

Q46. In advertising design, a "Call to Action" (CTA) element is best described as:

(A) The brand's tagline printed below the logo



- (B) A prompt (button, phrase, or instruction) designed to motivate the audience to take an immediate, specific action (e.g., “Buy Now”, “Sign Up”, “Learn More”)
- (C) The legal disclaimer text at the bottom of an advertisement
- (D) The background pattern used on a promotional poster

Q47. A logo that pairs an icon or symbol alongside the full company name is called a:

- (A) Emblem
- (B) Abstract mark
- (C) Combination mark
- (D) Lettermark

Q48. Which of the following is **NOT** typically part of a brand’s visual identity system?

- (A) The brand’s financial revenue targets
- (B) Logo and its usage rules
- (C) Brand colour palette
- (D) Typography guidelines

Q49. The Nike “Swoosh” and the Pepsi circular logo are examples of which logo type?

- (A) Wordmark
- (B) Lettermark
- (C) Emblem
- (D) Abstract / Pictorial mark

Q50. A luxury jewellery brand wants to communicate exclusivity, sophistication, and timelessness. Which colour combination from the options below is most aligned with these brand values?



- (A) Bright orange and neon yellow
- (B) Deep navy blue and gold
- (C) Hot pink and lime green
- (D) Turquoise and coral

Part B: Drawing Tasks — 50 Marks

Q51. [10 Marks | Suggested time: 15–18 min]

Design a **public bench in a park** that can be used comfortably by both **wheelchair users** and **ambulatory users** (people who walk).

- Show a **front view** of the bench.
- Show a **3D perspective sketch** of the bench.
- **Label at least 2 key inclusive-design features** (e.g., armrest placement, clear ground space for wheelchair, seat height, etc.).

[Drawing space — use this area for your sketch]



Q52. [10 Marks | Suggested time: 15–18 min]

Sketch **three orthographic views** (front view, side view, top view) of a **compact Bluetooth speaker** with a **cylindrical form**.

- Arrange the views in standard first-angle or third-angle projection layout.
- Add **simple dimension annotations** (e.g., height, diameter, depth).
- Indicate the position of the speaker grille, power button, and charging port on appropriate views.

[Drawing space — use this area for your sketch]

Q53. [10 Marks | Suggested time: 18–20 min]

Create a **mandala pattern** with **exactly 8-fold radial symmetry**.



- The design must include **at least 3 distinct concentric zones** (innermost, middle, outer ring).
- Vary the motifs used in each concentric zone (e.g., petals, geometric forms, dots, interlocking shapes).
- Pencil drawing only — no colour required.

[Drawing space — use this area for your sketch]

Q54. [10 Marks | Suggested time: 15–18 min]

Illustrate the **interior of a public library reading room at midnight**, with just a **few lamps lit**.

- Convey atmosphere through **light, shadow, and empty spaces**.
- Use value contrast (light vs. dark areas) to create mood.
- **No human figures** should appear in the scene.
- Suggest architectural details: bookshelves, reading tables, pools of lamplight, deep shadows.



[Drawing space — use this area for your sketch]

Q55. [10 Marks | Suggested time: 15–18 min]

Design **packaging (box + label)** for **artisan chocolates** made in a hill station.

- The design should reflect the **place of origin** (mountain landscape, local flora, altitude/mist) and the **premium handmade nature** of the product.
- Show the **front panel** of the box with label design.
- Show a **flattened die-line sketch** indicating the box net (panels, folds, flaps).
- Include brand name, tagline, and any relevant visual motifs in your layout.

[Drawing space — use this area for your sketch]



Detailed Solutions**Part A — Visual MCQ Solutions****Solution****Concept: One-Point Perspective — Vanishing Point.**

In one-point perspective, all receding lines (edges going “into” the picture) converge to a single point called the *vanishing point*, which always lies on the horizon line. In the diagram, the lines drawn from the right side of the front face converge to a point at the right end of the horizon line.

Why others are wrong:

- Q1.
- (A) Bottom-left and (B) top-left are corners of the front face, not on the horizon.
 - (C) The centre of the front face is a face point, not the VP.

Answer: (D) [Go Back to Q1](#)

Solution**Concept: Perspective Convergence.**

In one-point perspective, horizontal lines that travel away from the viewer (perpendicular to the picture plane) *converge toward the vanishing point* on the horizon. Vertical and truly horizontal lines (parallel to the picture plane) remain straight.

Why others are wrong:

- Q2.
- (A) Only lines *parallel* to the picture plane remain parallel — not receding ones.
 - (C) Divergence would produce an impossible, anti-perspective view.
 - (D) Lines do not curve; they remain straight but converging.

Answer: (B) [Go Back to Q2](#)

Solution**Concept: Two-Point Perspective Setup.**

Two-point perspective uses *two* vanishing points, both placed on the horizon line — one to the left and one to the right. All horizontal edges of the object converge toward one or the other VP; only vertical edges remain truly vertical.

Why others are wrong:

- Q3.
- (A) One VP is one-point perspective.
 - (B) VPs below the horizon line would create an impossible distortion.
 - (D) Three VPs are used in three-point (worm's or bird's-eye) perspective.

Answer: (C) [Go Back to Q3](#)

Solution

Concept: Foreshortening.

Foreshortening is the visual effect that makes an object or part of it appear shorter and compressed when viewed at an angle relative to the viewer. A pencil pointing directly at the viewer appears drastically shortened — you see mostly the circular tip cross-section and very little of the barrel length.

Why others are wrong:

- Q4.
- (B) Foreshortening compresses, not elongates.
 - (C) The pencil appears straight; it does not curve.
 - (D) The side view shows the true length — the opposite of foreshortening.

Answer: (A) [Go Back to Q4](#)

Solution

Concept: Horizon Line and Eye Level.

The horizon line always corresponds to the viewer's *eye level*. A worm's-eye view places the camera/eye close to the ground, so the eye level (horizon line) is very low — near the bottom of the picture — making all objects tower above it.

Why others are wrong:

- Q5.
- (A) Middle placement is a normal eye-level view, not a worm's-eye view.
 - (B) Top placement is a bird's-eye view.
 - (C) Above all objects is an extreme aerial view.

Answer: (D) [Go Back to Q5](#)

Solution

Concept: Two-Point Perspective — Vertical Edges.

In two-point perspective, the *vertical corner edges* of a box (the upright edges) do not converge; they remain perfectly vertical and parallel to each other. Only the



horizontal edges recede toward the left or right vanishing points.

Why others are wrong:

- Q6.**
- (A) Top and bottom horizontal edges converge to the VPs — they are not vertical.
 - (C) and (D) Diagonal edges toward either VP converge and are not vertical.

Answer: (B) [Go Back to Q6](#)

Solution

Concept: Cross-Section of a Cylinder — Horizontal Cut.

When a cylinder is cut by a plane *parallel* to its circular base, the resulting cross-section is a *circle* (same shape as the base). The circle has the same radius as the cylinder at the point of the cut.

Why others are wrong:

- Q7.**
- (A) A rectangle results from cutting parallel to the axis (longitudinal section).
 - (B) A triangle cannot result from any standard cut of a cylinder.
 - (D) An ellipse results from an *oblique* (angled) cut, not a horizontal one.

Answer: (C) [Go Back to Q7](#)

Solution

Concept: Cross-Section of a Sphere.

Any plane that passes through the *centre* of a sphere (a great-circle cut) produces a circular cross-section whose diameter equals the sphere's diameter. This is the largest possible circular cross-section of the sphere.

Why others are wrong:

- Q8.**
- (B) An ellipse would result from cutting a cylinder obliquely, not a sphere through its centre.
 - (C) A semicircle is only half of the cross-section, not the full shape.
 - (D) A rectangle cannot be produced by cutting a sphere.

Answer: (A) [Go Back to Q8](#)



Solution**Concept: Conic Sections.**

When a plane cuts a cone obliquely (not parallel or perpendicular to the base, and not through the apex), the four possible cross-sections are: circle, ellipse, parabola, and hyperbola. An oblique cut that does *not* become parallel to a generator line of the cone and does not pass through the apex yields an **ellipse**.

Why others are wrong:

- Q9.**
- (A) Circle: only when the cut is parallel to the base.
 - (B) Parabola: only when the cutting plane is parallel to exactly one generator.
 - (C) Hyperbola: only when the plane intersects both nappes (a steeper cut).

Answer: (D) [Go Back to Q9](#)

Solution**Concept: Diagonal Cross-Section of a Cuboid.**

A plane passing through two opposite parallel edges (e.g., the top-front edge and the bottom-rear edge) of a rectangular prism cuts across the full width and length. Because opposite edges are parallel and of equal length, the resulting cross-section is a **rectangle** (or parallelogram if the cut is not perfectly perpendicular to the side faces).

Why others are wrong:

- Q10.**
- (A) A square requires equal sides — not guaranteed in a general cuboid.
 - (C) A triangle would result from a cut passing through a corner point, not two full edges.
 - (D) A trapezoid would result from a cut through two non-parallel edges.

Answer: (B) [Go Back to Q10](#)

Solution**Concept: Cross-Section of a Torus.**

A torus (ring/doughnut shape) consists of a circular tube bent into a loop. When cut by a plane passing through the central axis, the plane slices through both walls of the tube. Each wall produces a circular cross-section, giving **two separate circles** — one on each side of the central hole.

Why others are wrong:

- Q11.
- (A) One circle would be the cross-section of a simple ring at a different angle.
 - (B) An ellipse would result from an oblique cut, not through the axis.
 - (D) A rectangle with rounded corners is not produced by a simple plane cut.

Answer: (C) [Go Back to Q11](#)

Solution

Concept: Cross-Section of a Triangular Prism.

A triangular prism has two triangular end faces and three rectangular side faces. Any plane cut *parallel* to the triangular end faces will intersect the prism in a shape *congruent* to those end faces — a **triangle**.

Why others are wrong:

- Q12.
- (B) A rectangle results from a cut parallel to a rectangular side face.
 - (C) A trapezoid results from an oblique cut partway through.
 - (D) A hexagon cannot result from any simple plane cut of a triangular prism.

Answer: (A) [Go Back to Q12](#)

Solution

Concept: Gestalt — Figure-Ground.

The vase-faces illusion is the classic demonstration of the **figure-ground** principle, where the same visual region can be perceived either as the foreground figure (the white vase) or as the background (the black silhouetted faces), depending on which element the viewer treats as “figure” versus “ground”.

Why others are wrong:

- Q13.
- (A) Proximity: grouping by nearness — not relevant here.
 - (B) Similarity: grouping by shared features — not the core principle here.
 - (C) Closure: perceiving incomplete shapes as complete — not demonstrated here.

Answer: (D) [Go Back to Q13](#)



Solution**Concept: Gestalt — Proximity.**

When elements are *close* to each other in space, the visual system automatically groups them together. The two clusters of dots (left group and right group) are perceived as separate groups because of the large gap between them — this is the principle of **proximity**.

Why others are wrong:

- Q14.**
- (A) Continuity refers to following a smooth path, not spatial clustering.
 - (C) Closure refers to completing an incomplete shape.
 - (D) Similarity involves grouping by shared visual properties (shape, size, colour).

Answer: (B) [Go Back to Q14](#)

Solution**Concept: Gestalt — Closure.**

Closure is the tendency of the visual system to complete an incomplete or broken shape, filling in the missing gaps to perceive a whole form. The brain “closes” the gap in the broken arc and perceives a full circle.

Why others are wrong:

- Q15.**
- (A) Proximity is about spatial grouping of separate elements.
 - (B) Similarity is about grouping elements that share visual properties.
 - (D) Continuity is about following smooth paths, not completing closed forms.

Answer: (C) [Go Back to Q15](#)

Solution**Concept: Gestalt — Similarity.**

When elements share a *visual attribute* (shape, colour, size, texture), the brain groups them together. Here, filled circles share the same visual property (filled) and are perceived as a group distinct from empty circles — demonstrating **similarity**.

Why others are wrong:

- Q16.**
- (B) Proximity: the filled and empty circles are interspersed at the same distances.



- (C) Figure-Ground: not applicable to a regular grid pattern.
- (D) Closure: no incomplete shape is being completed here.

Answer: (A) [Go Back to Q16](#)

Solution

Concept: Gestalt — Continuity.

The principle of **continuity** (or good continuation) states that the eye naturally follows smooth, continuous paths or curves, even when they intersect with other lines. At the crossing point, viewers do not perceive two V-shapes but instead see two smooth, continuous crossing curves.

Why others are wrong:

- Q17.**
- (A) Closure: no incomplete shape requiring completion is present.
 - (B) Proximity: the curves are not grouped by distance.
 - (C) Similarity: the curves may be identical, but the grouping is by path continuity.

Answer: (D) [Go Back to Q17](#)

Solution

Concept: Gestalt — Common Fate.

Common Fate is the Gestalt principle stating that elements moving in the *same direction* or undergoing the same motion are perceived as belonging together as a unified group. A flock of birds all flying in the same direction is the canonical example.

Why others are wrong:

- Q18.**
- (A) Closure: completing an incomplete shape.
 - (C) Proximity: grouping by spatial nearness — the birds may be spread out.
 - (D) Figure-Ground: about foreground vs. background perception.

Answer: (B) [Go Back to Q18](#)

Solution

Concept: Pattern Transformation — 90° Clockwise Rotation.

Rotating the L-shaped motif 90° clockwise transforms coordinates using the rule $(x, y) \rightarrow (y, -x)$. The tall vertical arm (originally pointing upward) rotates to



become a *horizontal arm pointing to the right*; the short horizontal arm (originally pointing right) rotates to become an arm *pointing upward*.

Why others are wrong:

- Q19.**
- (A) Describes a counter-clockwise rotation result.
 - (B) A 360° rotation is the only one that leaves the motif unchanged.
 - (D) A horizontal reflection is a different transformation.

Answer: (C) [Go Back to Q19](#)

Solution

Concept: Pattern Transformation — Horizontal Flip (Mirror).

A horizontal flip (mirroring left-to-right) reverses the direction along the horizontal axis. An arrow originally pointing to the *right* ($\rightarrow$) becomes an arrow pointing to the *left* ($\leftarrow$) after a horizontal flip. Up/down position is unchanged.

Why others are wrong:

- Q20.**
- (B) Pointing upward would result from a 90° rotation.
 - (C) The motif cannot be unchanged by a horizontal flip unless it has horizontal symmetry.
 - (D) Pointing downward would result from a vertical flip or 180° rotation.

Answer: (A) [Go Back to Q20](#)

Solution

Concept: Pattern Transformation — 180° Rotation.

A 180° rotation maps every point (x, y) to $(-x, -y)$ (relative to the centre of rotation). The flag motif (rectangle on left, triangle pointing right) after 180° rotation becomes: rectangle on the right, and triangle pointing to the left. Both parts swap sides and the triangle's direction reverses.

Why others are wrong:

- Q21.**
- (A) Describes the original orientation — the rectangle was already on the left.
 - (B) The motif only appears unchanged after 0° or 360° rotation.
 - (C) A vertical flip or 90° rotation would place the triangle above.

Answer: (D) [Go Back to Q21](#)



Solution**Concept: Scale Factor and Area.**

Original square side = 2 cm, so original area = $2^2 = 4 \text{ cm}^2$. When a shape is scaled by a linear scale factor k , the area scales by k^2 . With $k = 1.5$: new side = $2 \times 1.5 = 3 \text{ cm}$; new area = $3^2 = 9 \text{ cm}^2$.

Alternatively: $4 \times (1.5)^2 = 4 \times 2.25 = 9 \text{ cm}^2$.

Why others are wrong:

- Q22.**
- (A) 4 cm^2 is the original area, before scaling.
 - (C) 6 cm^2 would result from multiplying area by k instead of k^2 .
 - (D) 12 cm^2 is not produced by this scaling operation.

Answer: (B) [Go Back to Q22](#)

Solution**Concept: Tile Repeat — Rotational Orientations.**

The 2×2 block of four tiles uses the motif rotated 90° for each successive tile: 0° , 90° , 180° , 270° . These are *four distinct orientations*, so all four tiles look different from each other (unless the motif has 4-fold symmetry, which an asymmetric motif does not).

Why others are wrong:

- Q23.**
- (A) All tiles look the same only if the motif has 90° rotational symmetry.
 - (B) Two alternating orientations describes a $0/180$ alternation, not $0/90/180/270$.
 - (D) Three unique orientations would require two tiles to share the same orientation.

Answer: (C) [Go Back to Q23](#)

Solution**Concept: Lines of Reflective Symmetry.**

A **rectangle** (non-square) has exactly **two** lines of reflective symmetry: one running horizontally through the midpoints of the long sides, and one running vertically through the midpoints of the short sides. The diagonals are *not* lines of symmetry for a non-square rectangle.

Why others are wrong:

- Q24.**
- (B) An equilateral triangle has exactly 3 lines of symmetry.



- (C) A regular pentagon has exactly 5 lines of symmetry.
- (D) A scalene triangle has 0 lines of symmetry (all sides unequal).

Answer: (A) [Go Back to Q24](#)

Solution

Concept: Plain Weave Structure.

In a **plain weave** (the simplest and most common weave), each weft thread passes *alternately over one warp thread, then under the next* across the full width of the fabric. This creates a 1×1 interlacing pattern, producing a balanced, strong, and uniform textile.

Why others are wrong:

- Q25.**
- (A) Over two, under two (2×2) describes a *basket weave* or *matt weave*.
 - (B) Over three, under one describes a *satin* or *twill* weave (longer floats).
 - (C) Twisting warp threads around each other describes *gauze* or *leno* weave.

Answer: (D) [Go Back to Q25](#)

Solution

Concept: Batik Resist-Dyeing.

Batik is a wax-resist dyeing technique originating in Indonesia and practised across Asia and Africa. Hot wax (or wax mixed with resin) is applied to the fabric using a *tjanting* (a small metal cup with a spout) or a copper stamp (*cap*). The waxed areas resist the dye. After dyeing, the wax is removed (by boiling or scraping) to reveal the pattern.

Why others are wrong:

- Q26.**
- (A) Folding, twisting, and binding before dyeing describes *tie-dye* or *shibori*.
 - (C) Threads dyed before weaving describes *ikat*.
 - (D) Applying dye through a stencil screen describes *screen printing*.

Answer: (B) [Go Back to Q26](#)

Solution

Concept: Shibori Technique.

Shibori is a Japanese manual textile resist dyeing technique in which cloth is ma-



nipulated — through *folding, twisting, binding, stitching, or clamping with boards* — before immersion in an indigo (or other) vat dye. The bound or compressed areas resist the dye, creating diverse geometric and organic patterns. Different shibori methods include itajime (clamping), arashi (pole-wrapping), and kumo (pleating and binding).

Why others are wrong:

- Q27.**
- (A) Screen printing is a surface-application technique, not a resist technique.
 - (B) Using wax with a tjanting describes batik.
 - (D) Supplementary weft describes brocade weaving.

Answer: (C) [Go Back to Q27](#)

Solution

Concept: Fabric Weight — GSM.

GSM stands for **Grams per Square Metre**, the standard measure of fabric weight. A fabric at **280 GSM** is medium-to-heavy weight (typical range for denim: 280–340 GSM; canvas: 300+ GSM). This weight is appropriate for outerwear, jackets, or structured garments.

GSM weight guide:

- Q28.**
- < 100 GSM: Ultra-lightweight (chiffon, organza)
 - 100–200 GSM: Lightweight (shirt fabric, lining)
 - 200–300 GSM: Medium-heavy (trouser fabric, polo shirts)
 - > 300 GSM: Heavy (denim, canvas, upholstery)

Answer: (A) [Go Back to Q28](#)

Solution

Concept: Twill Weave Visual Characteristic.

Twill weave is identified by its characteristic *diagonal rib* or diagonal line running across the fabric surface. This diagonal is formed because each weft thread moves one step up or down from the previous pass, creating a staggered interlacing pattern. Denim, gabardine, and serge are classic twill weaves.

Why others are wrong:

- Q29.**
- (A) Checkerboard pattern describes a houndstooth or basket weave pat-



tern.

- (B) A uniform flat surface with no diagonals describes plain weave.
- (C) Horizontal ribs describe a *rib weave* (e.g., grosgrain ribbon fabric).

Answer: (D) [Go Back to Q29](#)

Solution

Concept: Burn Test for Fibre Identification.

The burn test is a standard method for identifying fibre types:

- Q30.**
- **Protein fibres** (wool, silk): Burn slowly, smell like *burning hair or feathers*, produce a *crushable black ash*, and *self-extinguish* when removed from flame.
 - Cotton/linen: Smell of burning paper; grey, feathery ash; continue to glow.
 - Polyester/Nylon (synthetics): Melt and drip; produce black smoke; form hard, rounded beads.

The sample in the question matches wool or silk behaviour precisely.

Answer: (B) [Go Back to Q30](#)

Solution

Concept: 12 Principles of Animation — Squash and Stretch.

Squash and Stretch is considered the most important of the 12 principles. It gives the illusion of weight and flexibility to an object. When an object hits a surface, it squashes (flattens); when it moves fast, it stretches. The critical constraint is that *total volume is conserved* — the object flattens but widens, or stretches but narrows.

Why others are wrong:

- Q31.**
- (A) Anticipation: a preparatory movement before a main action.
 - (B) Follow Through: secondary elements continuing to move after the main action stops.
 - (D) Staging: presenting an idea clearly within a shot.

Answer: (C) [Go Back to Q31](#)



Solution**Concept: 12 Principles — Anticipation.**

Anticipation prepares the audience for the main action. It is a counter-movement that precedes and emphasises the primary motion. Crouching *before* jumping is the classic example — the downward movement signals to the viewer that a jump is about to happen.

Why others are wrong:

- Q32.**
- (B) Overlapping Action: different body parts move at slightly different rates simultaneously.
 - (C) Slow In/Slow Out: easing at the start and end of a motion — about timing, not preparatory action.
 - (D) Secondary Action: a supplementary motion supporting the main action (e.g., arms swinging while walking).

Answer: (A) [Go Back to Q32](#)

Solution**Concept: 12 Principles — Follow Through and Overlapping Action.**

Follow Through refers to parts of a character or object that continue moving after the main body has stopped, because of inertia. Loose parts like hair, fabric, and accessories have their own momentum and will overshoot before settling. **Overlapping Action** refers to different parts of a character moving at different speeds simultaneously.

Why others are wrong:

- Q33.**
- (A) Anticipation is the preparatory counter-movement *before* the action.
 - (B) Squash and Stretch is about volume-preserving deformation during impact.
 - (C) Solid Drawing refers to giving characters a sense of three-dimensional form.

Answer: (D) [Go Back to Q33](#)

Solution**Concept: Frame Rate and Shooting on Twos.**

At 24 fps, a film shows 24 frames per second. “Shooting on twos” means each



unique drawing is *photographed twice* (held for 2 consecutive frames). Therefore:

$$\text{Unique drawings per second} = \frac{24 \text{ frames}}{2 \text{ frames/drawing}} = 12 \text{ drawings}$$

This is the standard approach for traditional hand-drawn animation (used by Disney, Studio Ghibli).

Why others are wrong:

- Q34.**
- (A) 24 drawings/second is “shooting on ones” (full animation), more labour-intensive.
 - (C) 8 would be shooting on threes; (D) 6 would be shooting on fours — both used for very limited animation.

Answer: (B) [Go Back to Q34](#)

Solution

Concept: Animation Easing — Ease In (Slow In).

Ease in (slow in) means an object *starts slowly* and *accelerates* over time toward full speed. Mathematically, spacing between frames is small at the start and increases progressively. This mimics real-world physics: objects at rest require force to accelerate and do not instantly reach top speed.

Why others are wrong:

- Q35.**
- (A) Constant speed is called a *linear* animation curve — no easing.
 - (B) Starting fast and decelerating is *ease out* (slow out).
 - (D) Bouncing back and forth is an elastic or bounce easing curve.

Answer: (C) [Go Back to Q35](#)

Solution

Concept: Keyframe Definition.

In digital animation (and traditional animation), a **keyframe** marks a *significant state or pose* in an animation sequence. The software (or the in-between animator) calculates or draws all intermediate frames between keyframes. Keyframes define the “what” and “when” of the main poses; in-betweens fill the gaps.

Why others are wrong:

- Q36.**
- (B) Every rendered frame is just called a “frame” — not all frames are keyframes.



- (C) Background art frames have no special technical designation as keyframes.
- (D) Scene cut markers are called “edit points” or “cut marks,” not keyframes.

Answer: (A) [Go Back to Q36](#)

Solution

Concept: Universal Design — Ramp Gradient.

International accessibility standards (ADA in the USA, IS 9926 in India, and ISO guidelines) specify that a wheelchair-accessible ramp should have a maximum gradient of **1:12** (rise:run), which equals approximately 4.8° or an 8.3% slope. This ensures that a wheelchair user or person with limited mobility can safely navigate the ramp without tipping.

Why others are wrong:

- Q37.**
- (A) 1:5 (20%) is too steep for wheelchair use.
 - (B) 1:8 (12.5%) exceeds the recommended maximum.
 - (C) 1:10 (10%) is close but not the standard; 1:12 is the ADA/IS standard.

Answer: (D) [Go Back to Q37](#)

Solution

Concept: Tactile Paving — Standard Colour.

In India, the **yellow** colour is standardised for tactile ground surface indicators (TGSIs) used at pedestrian crossings, railway platforms, and public spaces to guide visually impaired pedestrians. The high-contrast yellow against grey concrete creates a detectable visual contrast, in addition to the tactile (raised dot or bar) surface texture.

Why others are wrong:

- Q38.**
- (A) Red tactile tiles indicate danger/stop zones in some systems but are not the Indian standard for pedestrian crossings.
 - (C) White provides insufficient contrast against light pavement.
 - (D) Blue is not a standard tactile paving colour.

Answer: (B) [Go Back to Q38](#)



Solution

Concept: WCAG 2.1 — Colour Contrast Ratio.

The **Web Content Accessibility Guidelines (WCAG) 2.1** specify minimum contrast ratios for readable text:

- Q39.**
- **Level AA:** minimum contrast ratio of **4.5:1** for normal text; 3:1 for large text ($\geq 18\text{pt}$ or $\geq 14\text{pt}$ bold).
 - **Level AAA:** minimum contrast ratio of 7:1 for normal text.

A ratio of 4.5:1 ensures that people with moderate vision loss (approximately 20/80 vision) can read text without assistive technology.

Answer: (C) [Go Back to Q39](#)

Solution

Concept: Braille Cell Structure.

Standard **Braille** (Grade 1 and Grade 2) uses a rectangular **cell** consisting of **6 raised dots** arranged in a **2-column, 3-row grid** (2 dots wide $\times$ 3 dots tall), numbered 1–6 from top to bottom, left to right. Different combinations of raised dots represent different letters, numbers, and punctuation marks.

Why others are wrong:

- Q40.**
- (B) A 3×3 grid of 9 dots would be 8-dot Braille (used in some specialized systems but not standard).
 - (C) A single row of 4 dots is not a Braille cell.
 - (D) An 8-dot, 2×4 cell is used in computer Braille (Grade 3), not standard literary Braille.

Answer: (A) [Go Back to Q40](#)

Solution

Concept: Hearing Loop (Induction Loop) System.

An **induction loop** (also called an audio frequency induction loop or AFIL) works by generating a magnetic field that carries an audio signal (e.g., speech from a PA system). **Hearing aids equipped with a telecoil (T-coil)** can pick up this magnetic field directly, bypassing the microphone and filtering out background noise. This dramatically improves speech clarity for hearing aid users in theatres, airports, and other public spaces.

Why others are wrong:



- Q41.**
- (A) Wheelchair users: hearing loops do not assist with mobility.
 - (B) Low vision: induction loops do not affect lighting.
 - (C) Cognitive disabilities: hearing loops do not assist with wayfinding.

Answer: (D) [Go Back to Q41](#)

Solution

Concept: Universal Design — Door Handle.

A **lever-style handle** is universally preferred over a round knob because it can be operated with a closed fist, an elbow, or a wrist push — without requiring the ability to grip and twist. This makes it accessible for people with arthritis, limited hand strength, prosthetic limbs, or who are carrying objects. Round knobs require precise grip and twisting, excluding many users.

Why others are wrong:

- Q42.**
- (A) Recessed pull handles are useful for sliding doors but not for all users in all contexts.
 - (C) Ring pulls still require grip and pulling.
 - (D) Dual-knob handles are not a recognised universal design solution.

Answer: (B) [Go Back to Q42](#)

Solution

Concept: Branding — Wordmark (Logotype).

A **wordmark** (or logotype) is a logo consisting *solely* of the brand name set in a distinctive, custom-designed or selected typeface, with no separate icon or symbol. Examples include Google, Coca-Cola, FedEx, and Sony. The typographic treatment itself becomes the visual identifier.

Why others are wrong:

- Q43.**
- (A) A brandmark (pictorial mark) uses only an icon/image, no text (e.g., Apple logo).
 - (B) A lettermark uses only initials (e.g., IBM, CNN).
 - (D) A combination mark pairs both a symbol/icon and the brand name.

Answer: (C) [Go Back to Q43](#)



Solution**Concept: Branding — Lettermark (Monogram Logo).**

A **lettermark** (monogram logo or initial mark) consists of the brand's initials or abbreviation rendered in a distinctive typeface. This is ideal for organisations with long names: "International Business Machines" becomes IBM, "National Aeronautics and Space Administration" becomes NASA, "Cable News Network" becomes CNN.

Why others are wrong:

- Q44.**
- (B) A wordmark uses the full company name, not abbreviations.
 - (C) An emblem encloses text within a badge, crest, or seal shape.
 - (D) An abstract mark uses a geometric or abstract form with no letters (e.g., Nike Swoosh).

Answer: (A) [Go Back to Q44](#)

Solution**Concept: Advertising Layout — Visual Hierarchy.**

Visual hierarchy is the deliberate arrangement of design elements to guide the viewer's eye in a specific sequence — from the most important element to the least important. Designers achieve hierarchy through size (larger = more important), colour contrast, typography weight, white space, and spatial positioning. The viewer's eye naturally follows the hierarchy without conscious effort.

Why others are wrong:

- Q45.**
- (A) Alphabetical ordering is not a design principle.
 - (B) Uniform sizing creates visual monotony — the opposite of hierarchy.
 - (C) Using a single typeface is a consistency guideline, not hierarchy.

Answer: (D) [Go Back to Q45](#)

Solution**Concept: Advertising Design — Call to Action (CTA).**

A **Call to Action** is a design element (button, text, phrase, or instruction) that explicitly prompts the viewer to perform a *specific, immediate action*. Effective CTAs use action verbs ("Buy," "Download," "Subscribe"), create urgency, and are visually prominent. They are a conversion-driving element in advertising, UI design, and marketing communications.



Why others are wrong:

- Q46.**
- (A) A tagline is a brand phrase conveying positioning, not an action prompt.
 - (C) Legal disclaimer text is a compliance requirement, not a CTA.
 - (D) Background patterns are aesthetic elements with no directive function.

Answer: (B) [Go Back to Q46](#)

Solution

Concept: Branding — Combination Mark.

A **combination mark** pairs a distinct icon, symbol, or pictorial element *alongside* the brand name (wordmark). This gives the brand flexibility: the icon and the name can be used separately once the brand is established, or together for new audiences. Examples: Adidas, Burger King, Lacoste.

Why others are wrong:

- Q47.**
- (A) An emblem integrates text *inside* a badge/crest shape (e.g., Starbucks, Harley-Davidson) — text and icon are inseparable.
 - (B) An abstract mark has no representational imagery — it is a pure geometric form.
 - (D) A lettermark uses only initials.

Answer: (C) [Go Back to Q47](#)

Solution

Concept: Brand Identity System — Components.

A **visual identity system** (brand identity) encompasses all visual elements that represent a brand: logo and usage rules, colour palette, typography guidelines, imagery style, iconography, pattern/texture library, and layout grids. **Financial revenue targets** are a *business metric* — they belong to the business plan or financial strategy, not the visual identity system.

Why others are wrong:

- Q48.**
- (B) Logo and usage rules: a core component of every brand identity guide.
 - (C) Brand colour palette: critical for consistent visual recognition.
 - (D) Typography guidelines: define which fonts, weights, and sizes represent the brand.



Answer: (A) [Go Back to Q48](#)

Solution

Concept: Branding — Abstract / Pictorial Mark.

The Nike **Swoosh** is an *abstract mark* — a simple, non-representational geometric shape that does not directly depict a recognisable object but conveys speed and movement through its form. The Pepsi globe (circular yin-yang) is also an abstract/pictorial mark. These marks derive their meaning purely from brand association over time.

Why others are wrong:

- Q49.**
- (A) Wordmark: text-only logo using the full brand name.
 - (B) Lettermark: initials-based text logo.
 - (C) Emblem: text integrated within a badge or crest shape.

Answer: (D) [Go Back to Q49](#)

Solution

Concept: Brand Colour Psychology — Luxury and Sophistication.

Deep navy blue communicates trust, depth, sophistication, and authority. **Gold** signals exclusivity, luxury, prestige, and craftsmanship. The navy-and-gold combination is widely used in high-end jewellery, banking, and premium fashion brands (e.g., Montblanc, Patek Philippe) precisely because it conveys timeless elegance.

Why others are wrong:

- Q50.**
- (A) Bright orange and neon yellow: energetic, youthful, casual — opposite of luxury.
 - (C) Hot pink and lime green: playful, vibrant, trendy — not luxury signifiers.
 - (D) Turquoise and coral: tropical, fresh, friendly — not aligned with exclusivity.

Answer: (B) [Go Back to Q50](#)

Part B — Drawing Task Model Answers

Q51. Inclusive Park Bench — Model Answer Guidelines

Design Intent: An inclusive bench must accommodate both ambulatory users (who sit and rise independently) and wheelchair users (who park alongside the bench and interact at a shared level).

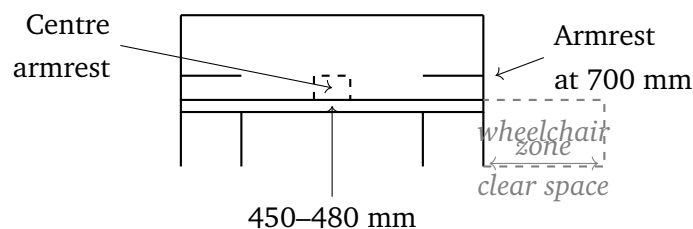


Key Inclusive Design Features to Label:

1. **Clear floor space (900 mm × 1200 mm minimum)** on at least one end of the bench, free of obstructions, allowing a wheelchair to park alongside.
2. **Seat height 450–480 mm** from ground — within the comfortable range for ambulatory users and approximate wheelchair seat height, enabling side-by-side interaction.
3. **Armrests on both sides** and at the centre (not just at the ends) to assist elderly users in rising; armrests also serve as grip aids.
4. **Backrest with lumbar support** at a slight recline (100–105°) for comfortable sitting.
5. **Firm, non-slippery seat surface** (slatted hardwood or recycled composite) — no soft upholstery that makes rising difficult.

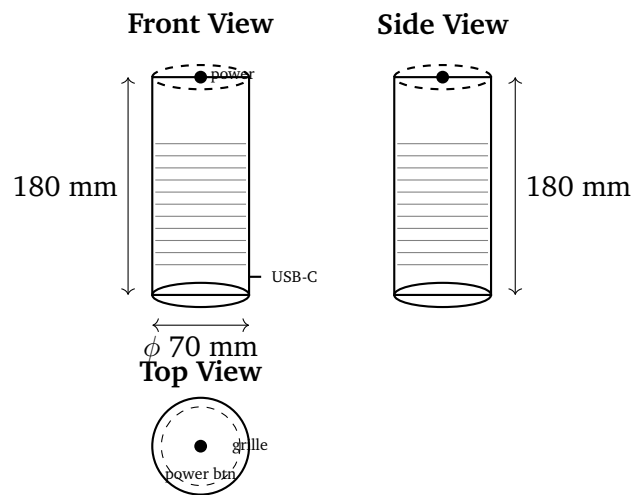
Sketch Assessment Criteria:

- Front view clearly shows seat height, armrest height, leg clearance (2 marks)
- 3D perspective sketch shows the bench in context with clear floor space for wheelchair (3 marks)
- At least 2 design features correctly labelled with notes (2 marks)
- Proportions, line quality, and clarity of communication (3 marks)

*Front View — Inclusive Park Bench***Q52. Compact Bluetooth Speaker — Orthographic Views Model Answer**

Design Concept: A cylindrical Bluetooth speaker approximately 180 mm tall, 70 mm diameter, with a speaker grille occupying the upper two-thirds, a rubber ring base, a power button on top, and a charging port + auxiliary port on the base section.

Orthographic Layout (First-Angle Projection):

**Sketch Assessment Criteria:**

- Three views correctly arranged in projection layout (3 marks)
- Cylindrical form correctly represented with hidden lines shown dashed (2 marks)
- Grille, power button, and charging port visible on correct views (2 marks)
- Dimension annotations (at least height and diameter) (2 marks)
- Overall clarity and neatness (1 mark)

Q53. Mandala Pattern — Model Answer Guidelines**Design Requirements:**

1. **8-fold radial symmetry:** The pattern must be identical when rotated by 45° ($360 \div 8 = 45$). Each design element must appear 8 times around the centre.
2. **Three concentric zones:**
 - **Inner zone (innermost circle):** Simple motif — e.g., 8 small petals, dot-and-circle, 8-pointed star. Radius approximately 15–20 mm.
 - **Middle zone (ring):** Geometric repeat — e.g., 8 lotus petals interspersed with 8 flame-like pointed forms, or 8 paired triangles. Width approximately 20–30 mm.
 - **Outer zone (outermost ring):** Complex repeat — e.g., 8 large petals with internal line detail, interlocking arcs, or a series of 16–24 small elements. Width approximately 25–40 mm.
3. **Transition lines** between zones (circles separating each band) should be clearly drawn.
4. **No colour required:** Tonal variation can be achieved through hatching, cross-hatching, or stippling.

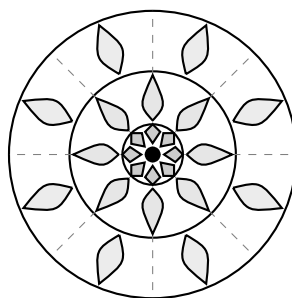
Construction Method (for exam use):

1. Draw a small circle in the centre (dot); draw 3 concentric circles for zone boundaries.
2. Lightly draw 4 diameter lines through the centre at 0, 45, 90, 135 — giving 8 radiating guide lines.

3. Build one “sector” (one-eighth of the pattern) and replicate it 8 times.

Sketch Assessment Criteria:

- 8-fold radial symmetry clearly achieved (3 marks)
- At least 3 distinct concentric zones with varied motifs (3 marks)
- Quality of line work, consistency of repetition (2 marks)
- Overall visual appeal and design sophistication (2 marks)



Sample Mandala — 8-fold symmetry, 3 concentric zones

Q54. Midnight Library Reading Room — Model Answer Guidelines

Atmospheric Goals:

- **Light source:** A few table lamps create small islands of warm, focused light in an otherwise dark space. Floor lamps or emergency exit signs may add secondary light hints.
- **Shadow:** The dominant value in the composition should be *dark*. Deep shadows fill the space between lit areas. Bookshelves recede into darkness.
- **Empty space:** The absence of human figures is itself a compositional element. Empty chairs, abandoned books on tables, and vacant aisles communicate solitude and stillness.
- **Mood:** Silence, solitude, intellectual depth, the weight of accumulated knowledge.

Key Compositional Elements:

1. High bookshelves on the left and right walls, converging in perspective toward the back, fading into darkness.
2. Three or four reading tables in the foreground, each with a lit table lamp creating a circular pool of light on the tabletop.
3. Strong contrast: the lamp halos and table surfaces are bright (white or very light grey); the surrounding space is very dark.
4. Ceiling details (beams, pendant fixtures, mouldings) partially visible at the top, disappearing into shadow.
5. A window at the back with faint moonlight creating a secondary light rectangle in the darkness.

Rendering Technique:



- Use **heavy pencil pressure** for dark areas (bookshelves, floor between tables, ceiling).
- Use **light pressure or leave white** for lamp halos and lit table surfaces.
- Use **hatching or blending** to create gradual value transitions from light to shadow.

Sketch Assessment Criteria:

- Convincing atmospheric lighting (contrast of lit vs. dark areas) (3 marks)
- Architectural space (shelves, tables, perspective) correctly suggested (3 marks)
- No human figures; emptiness used as a compositional device (2 marks)
- Overall mood, composition quality, and tonal range (2 marks)

Q55. Hill Station Artisan Chocolate Packaging — Model Answer Guidelines

Design Concept: A premium chocolate box for artisan chocolates from a Himalayan hill station (e.g., Coorg, Ooty, Darjeeling, or Mussoorie).

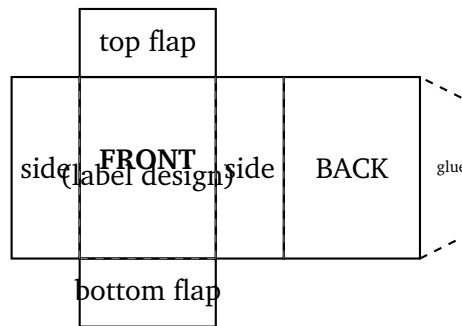
Front Panel Design Elements:

1. **Brand Name:** e.g., “Mist & Cacao” or “Cloud Nine Chocolates” — letterforms should feel handcrafted (script or artisan-style typeface).
2. **Tagline:** e.g., “Handcrafted at 2100 m” or “Where the clouds taste of cocoa.”
3. **Visual Motifs:** Mountain silhouette, mist/cloud patterns, local flora (rhododendron, tea leaves), altitude contour lines used decoratively.
4. **Colour Palette:** Earthy tones — deep brown, cream, forest green, misty grey, gold foil accents for premium feel.
5. **Material Feel:** Kraft paper texture (or a clean white base with embossed elements) to communicate handmade quality.
6. **Certification or provenance badge:** “Single-Origin Cacao | Hill Station Grown” label element.

Die-Line Sketch: A standard tuck-end box die-line includes:

- **Front panel** (largest), **back panel** (same size as front)
- **Two side panels** (gussets, narrower)
- **Top and bottom tuck flaps** (folded to lock the box)
- Fold lines shown as *dashed lines*; cut lines shown as *solid lines*





— cut line - - - fold line

Sketch Assessment Criteria:

- Front panel design conveys hill station origin and premium/handmade quality (3 marks)
- Visual motifs, typography, and colour concept described/sketched (2 marks)
- Die-line sketch correct (all panels, folds, flaps indicated) (3 marks)
- Overall design coherence, creativity, and visual communication (2 marks)



Answer Key (Part A — Visual MCQs)

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	D	2	B	3	C	4	A	5	D
6	B	7	C	8	A	9	D	10	B
11	C	12	A	13	D	14	B	15	C
16	A	17	D	18	B	19	C	20	A
21	D	22	B	23	C	24	A	25	D
26	B	27	C	28	A	29	D	30	B
31	C	32	A	33	D	34	B	35	C
36	A	37	D	38	B	39	C	40	A
41	D	42	B	43	C	44	A	45	D
46	B	47	C	48	A	49	D	50	B

