AIEED Creative Ability

Sample Paper – 2

Duration: 180 Minutes **Maximum Marks: 200**

Instructions

- This paper contains **50 Multiple Choice Questions** (Single Correct Answer), modelled on the Creative Ability Test (CAT) of **AIEED** entrance.
- Each correct answer carries **+4 marks**. There is **no negative marking** for incorrect or unattempted answers.
- Only **one** option is correct. Choose carefully.
- The test is conducted in **online (CBT) mode**. Use of personal calculators, mobile phones, or electronic gadgets is strictly prohibited.
- Topics: **Design Elements & Principles, Visual & Spatial Ability, Colour Theory & Composition, Lateral Thinking, Design History & Movements, Typography & Branding.**

Q1. Which of the following statements CORRECTLY defines the design principle of **proportion**?

(A) Proportion refers to the relative size relationship between elements within a composition, or between an element and the whole.

(B) Proportion is the use of repeated visual motifs placed at equal intervals to create a consistent, unified pattern.

(C) Proportion describes the degree of lightness or darkness distributed across different areas of a composition.

(D) Proportion means distributing equal visual weight symmetrically on both sides of a central axis.

Q2. Which of the following compositions BEST demonstrates **asymmetrical (informal) balance**?

(A) A poster with identical columns of text arranged symmetrically on either side of a central vertical axis.

(B) A large bold headline placed on the left side, counterbalanced by a cluster of smaller decorative elements of equal visual weight on the right.

(C) A mandala in which identical motifs radiate uniformly outward from a single central point in all directions.

(D) A full-bleed photograph repeated identically in both the upper half and the lower half of the layout.

Q3. Which of the following examples BEST illustrates **radial balance**?

(A) A layout where a large typographic element on the left is balanced by a group of smaller images placed on the right.

(B) A composition in which the upper half and lower half are mirror images reflected across a horizontal axis.

(C) A snowflake pattern in which identical crystal arms radiate symmetrically outward from a single central point.

(D) A composition in which elements decrease progressively in size from left to right, creating an illusion of receding depth.

Q4. When an **oversized** object is deliberately placed alongside a normal-sized object of the same type in a composition, what is the PRIMARY design effect created?

(A) Radial balance, because the large object anchors the entire composition around itself.

(B) Rhythm, because the viewer's eye moves repeatedly back and forth between the two objects.

(C) Texture, because the size differential adds surface-level interest to the overall composition.

(D) Emphasis and visual contrast, immediately drawing the viewer's attention through the unexpected scale difference.

Q5. Which statement BEST describes the design principle of **contrast**?

(A) Contrast is achieved by repeating identical elements at regular, evenly spaced intervals throughout a layout.

(B) Contrast creates visual interest and emphasis by juxtaposing elements that differ significantly in colour, size, shape, or texture.

(C) Contrast requires all elements in a composition to carry equal visual weight so the design feels balanced.

(D) Contrast is the principle of placing all design elements at equal distances from each other to produce order and harmony.

Q6. In design, what does the principle of **repetition** primarily create?

(A) A sense of visual rhythm, pattern, and unity by consistently repeating elements such as colour, shape, line, or texture.

(B) A dominant focal point that guides the viewer's eye directly to the single most important element in the layout.

(C) Maximum visual contrast between elements by emphasising their differences in size, colour, and form.

(D) A sense of progressive movement from one end of a composition to the other through gradual, step-by-step change.

Q7. Which single factor MOST increases the **visual weight** of an element within a composition?

(A) Placing the element in the lower right corner of the composition.

(B) Making the element pale or light in colour relative to its surrounding elements.

(C) Making the element larger, darker, or more saturated in colour than the surrounding elements.

(D) Reducing the element's opacity so that it blends gradually into the background.

Q8. What is the PRIMARY function of **variety** as a design principle?

(A) To ensure that all elements share the same colour palette, reinforcing visual cohesion throughout the design.

(B) To repeat the same element consistently throughout the composition in order to create a strong, unified pattern.

(C) To align every element to a common grid, producing visual order and consistency across the layout.

(D) To introduce deliberate differences among elements so as to prevent monotony and sustain the viewer's visual interest.

Q9. The diagram below shows a composition designed to suggest **visual movement**. Which design strategy BEST creates the illusion of movement in a static 2D composition?

(A) Diagonal lines, repeated shapes with gradual size changes, or flowing curved lines that guide the eye through the composition in a clear direction.

(B) Horizontal and vertical lines arranged in a symmetrical grid to create a stable, static, and rigidly ordered layout.

(C) A single centred element with no directional cues, placed exactly at the geometric centre of the canvas.

(D) Identical elements spaced at perfectly equal intervals in a regular grid pattern, with no variation in size or direction.

Q10. Which of the following examples BEST demonstrates the **Gestalt Law of Continuity**?

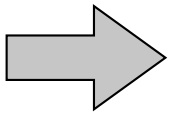
(A) Three tight groups of dots that are perceived as three separate clusters due to the close spacing of elements within each group.

(B) A series of dots arranged along a gently curving arc that the eye follows as a single, unbroken path even where short gaps interrupt the sequence.

(C) Two identical triangles placed point-to-point that together appear to form a six-pointed star because of their similar shape.

(D) A large red square on a white background that immediately draws the viewer's eye owing to strong value contrast.

Q11. The shape below is a right-pointing arrow.



Original shape

When this shape is reflected about a **vertical axis** (i.e., flipped horizontally as in a mirror), which description correctly identifies the resulting shape?

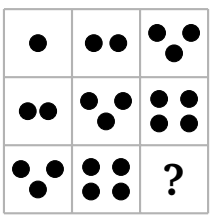
(A) An arrow pointing upward with the arrowhead at the top (equivalent to rotating the original 90° clockwise).

(B) An arrow pointing rightward but flipped upside down (equivalent to rotating the original 180° about a horizontal axis).

(C) A left-pointing arrow with the rectangular body extending to the right and the arrowhead pointing to the left.

(D) An arrow pointing downward with the arrowhead at the bottom (equivalent to rotating the original 90° anti-clockwise).

Q12. Study the 3×3 matrix of dot patterns below. Each cell contains dots according to a consistent rule across rows and columns. What should appear in the cell marked **"?"** (bottom-right)?



(A) 3 dots (repeating the count from the cell diagonally above-left)

(B) 4 dots (repeating the count from the middle-row third-column cell)

(C) 6 dots arranged in two rows of three

(D) 5 dots arranged in a quincunx pattern (four corners plus one centre)

Q13. How many **rectangles in total** (of all sizes, including unit squares) exist in the 2×3 grid of unit squares shown below?

(A) 18

(B) 12

(C) 6

(D) 24

Q14. The capital letter **"W"** is rotated **180°**. Which capital letter does the resulting shape most closely resemble?

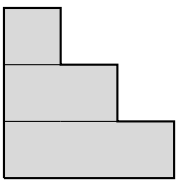
(A) N

(B) M

(C) Z

(D) E

Q15. The diagram below shows a **staircase** built from unit cubes ($1 \times 1 \times 1$). The tallest column (left) has 3 cubes, the middle column has 2, and the shortest (right) has 1. Each column is exactly **one cube deep** (into the page). What is the **total number of unit cubes** in the solid?



Front view (depth = 1 unit per column)

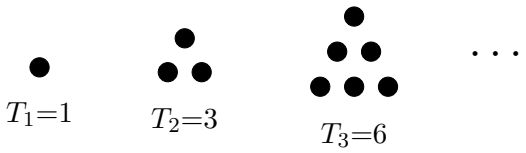
(A) 3

(B) 4

(C) 6

(D) 9

Q16. The diagrams below illustrate the first three **triangular numbers** — each figure adds one extra row of dots to form a larger equilateral triangle. The sequence continues: 1, 3, 6, 10, 15, . . . What is the **next term** after 15?



(A) 21

(B) 18

(C) 20

(D) 25

Q17. A cone is placed with its **apex (pointed tip) facing downward** and viewed from the **front (front elevation)**. Which 2D shape BEST represents this front view?

(A) A circle with a small dot at the top (representing the circular base as seen from directly above)

(B) A rectangle, because the curved lateral surface of the cone appears rectangular from the front

(C) A circle, because the circular cross-section of the cone is the dominant visible feature

(D) An isosceles triangle with the apex pointing downward and the base (wider end) at the top

Q18. A standard cube (which has 6 square faces) has **exactly one corner** removed by a single straight planar cut that slices across that corner. How many faces does the resulting solid have?

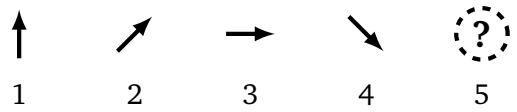
(A) 6

(B) 7

(C) 8

(D) 9

Q19. Each arrow in the series below is rotated **45° clockwise** from the previous arrow. In which direction does **arrow 5** (marked "?") point?



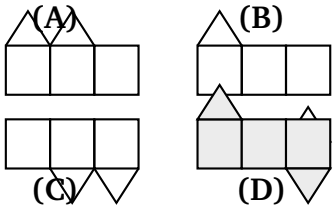
(A) Left (pointing due west)

(B) Up-right (pointing northeast, 45° above the horizontal)

(C) Down (pointing due south)

(D) Down-left (pointing southwest, 45° below the horizontal to the left)

Q20. A **triangular prism** has exactly 5 faces: 2 triangular faces and 3 rectangular faces. Which of the four nets shown below, when folded, correctly forms a closed triangular prism?



(A) Net A: a strip of three rectangles with both triangles attached to the top edge of the strip.

(B) Net B: a strip of three rectangles with one triangle on top of the first rectangle and one triangle detached below the strip.

(C) Net C: a strip of three rectangles with both triangles attached to the bottom edge of the strip.

(D) Net D: a strip of three rectangles with one triangle on the top of the first rectangle and one triangle on the bottom of the last rectangle.

Q21. An **analogous colour scheme** uses colours that are:

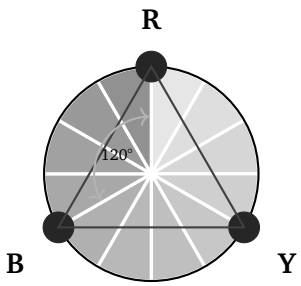
(A) Adjacent to each other on the colour wheel (for example, red, red-orange, and orange).

(B) Directly opposite each other on the colour wheel (a complementary scheme).

(C) Equidistant at 120° apart on the colour wheel (a triadic scheme).

(D) All tints and shades derived from a single base hue (a monochromatic scheme).

Q22. The colour wheel below shows three equally spaced points connected by a triangle. In a **triadic colour scheme**, the three colours are positioned ___ degrees apart. Which three colours form the **primary colour triad**?



(A) 90°; Red, Orange, Yellow, and Green

(B) 120°; Red, Yellow, and Blue (the three traditional primary colours)

(C) 60°; Orange, Green, and Violet

(D) 180°; Red and Green only (a complementary pair, not a triad)

Q23. In **RGB additive colour mixing** (the mixing of coloured light), Red light combined with Blue light produces which colour?

(A) Yellow

(B) Cyan

(C) White

(D) Magenta

Q24. In the **CMYK** colour model used in commercial printing, what does the letter **"K"** stand for?

(A) Khaki (a warm neutral tone used as a base layer in offset printing)

(B) Kolor (from the archaic German spelling used when CMYK was standardised)

(C) Key (referring to the key printing plate, typically black, used to add fine detail and contrast)

(D) Krypton (a chemical compound used as a drying agent in modern offset lithography)

Q25. In Western colour psychology and cultural tradition, which colour is most strongly associated with **royalty, luxury, and wisdom**?

(A) Purple (violet)

(B) Gold (yellow)

(C) Crimson (red)

(D) Midnight blue

Q26. In colour theory, the term **"saturation"** refers to:

(A) The relative lightness or darkness of a colour (its value on a light-to-dark scale).

(B) The intensity or purity of a colour — how vivid and undiluted it appears compared with a neutral grey.

(C) The perceived warmth or coolness of a colour on the warm-cool spectrum.

(D) The hue angle of a colour as measured in degrees around the colour wheel.

Q27. A **split-complementary** colour scheme uses how many colours, and how are they selected?

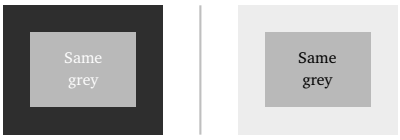
(A) 2 colours: a base colour and its direct complement directly opposite on the wheel.

(B) 4 colours: pairs of complements placed at 90° intervals forming a rectangle on the wheel.

(C) 3 colours: one base colour plus the two colours immediately adjacent to its complement on the wheel.

(D) 6 colours: all six positions equally spaced at 60° intervals around the wheel.

Q28. The diagrams below show the **same grey square** placed on two different backgrounds. According to **Chevreul's Law of Simultaneous Contrast**, two colours placed next to each other will each appear ___ than if viewed in isolation.



Light background

(A) More similar in appearance, because adjacent colours blend optically at their shared edge.

(B) Lighter in value, because any juxtaposition of two colours always increases their perceived brightness.

(C) Cooler in temperature, because contrast reduces the warmth of adjacent colours.

(D) More different from each other (more intensified or shifted in apparent hue), because each colour's appearance is influenced by its neighbour.

Q29. Complete the analogy: **Brush : Painter :: Chisel : ___**

(A) Sculptor

(B) Carpenter

(C) Architect

(D) Weaver

Q30. Three of the following four software applications primarily serve **2D visual communication and graphic design**. Which one does **NOT**?

(A) Adobe Photoshop (raster image editing for graphic design and photography)

(B) Autodesk Revit (Building Information Modelling software for architecture and engineering)

(C) Adobe InDesign (page layout and editorial design for print and digital publishing)

(D) Adobe Illustrator (vector graphics and illustration for graphic design)

Q31. "I have a face but no eyes; I have hands but no fingers; I measure time but I am not alive." What am I?

(A) A sundial

(B) A metronome

(C) A clock

(D) A calendar

Q32. In the **Design Thinking** process (Empathise $\rightarrow$ Define $\rightarrow$ Ideate $\rightarrow$ Prototype $\rightarrow$ Test), the **Define** phase produces which key output?

(A) A clear **Problem Statement** (Point of View statement) that frames the user's core need in actionable terms.

(B) A set of physical prototypes that are ready to be tested directly with end users.

(C) A detailed manufacturing specification listing materials, tolerances, and production methods for the final product.

(D) A comprehensive user testing report containing quantitative usability metrics and statistical analysis.

Q33. Complete the analogy: **Wood : Carpenter :: Clay : ___**

(A) Painter

(B) Weaver

(C) Architect

(D) Potter

Q34. Using the alphabetic code where A = 1, B = 2, C = 3, . . . , Z = 26, what is the **sum of the letter values** in the word **"BLUE"**?

(B = 2, L = 12, U = 21, E = 5)

(A) 35

(B) 40

(C) 45

(D) 30

Q35. A product designer is briefed to redesign a teacup **specifically for users with arthritis** (characterised by limited grip strength and reduced finger dexterity). Which redesign feature MOST directly addresses this brief?

(A) Using fine bone china material for an elegant, lightweight, and visually refined aesthetic.

(B) Reducing the cup's overall height to make it more compact and easier to store on a shelf.

(C) A large D-shaped handle with an integrated thumb rest and a non-slip textured base to maximise grip security.

(D) Printing a decorative floral pattern on the exterior to create a more attractive and appealing visual appearance.

Q36. The **Art Nouveau** movement (c. 1890–1910) is characterised by which visual style?

(A) Bold geometric patterns, strong bilateral symmetry, and the lavish use of luxury materials such as chrome and marble.

(B) Flat rectangular colour planes bounded by primary colours separated by a strict grid of black horizontal and vertical lines.

(C) Minimalist typographic grids, neutral sans-serif type, and the complete rejection of all surface ornament.

(D) Organic flowing lines inspired by natural forms (plants, flowers, and insects), sinuous asymmetrical curves, and whiplash decorative motifs.

Q37. The **De Stijl** movement (Netherlands, founded 1917) is most associated with which artist/designer and which visual characteristic?

(A) Piet Mondrian; flat planes of primary colours (red, blue, yellow) and white, separated by bold black horizontal and vertical grid lines.

(B) Salvador Dalí; surrealist dreamlike imagery featuring melting clocks, distorted figures, and impossible juxtapositions.

(C) Gustav Klimt; ornate gilded decorative patterns combined with figurative painting in the Vienna Secession style.

(D) Kazimir Malevich; pure geometric abstraction using only black squares and rectangles on white backgrounds.

Q38. The **Wassily Chair** (1925–1926), constructed from bent tubular steel and stretched canvas straps, was designed by which **Bauhaus** designer?

(A) Walter Gropius

(B) Marcel Breuer

(C) Ludwig Mies van der Rohe

(D) László Moholy-Nagy

Q39. **Paul Rand** (1914–1996) was one of America's most influential graphic designers. For which company did he create the famous **striped horizontal-line logo**?

(A) Nike (the "swoosh" logo)

(B) Apple (the bitten apple symbol)

(C) IBM (the 8-stripe and 13-stripe horizontal-line rebus logo)

(D) Coca-Cola (the flowing Spencerian script logotype)

Q40. The **Memphis Group** (Milan, founded 1981), known for its bold, colourful, and postmodern furniture and product designs, was founded by which Italian designer?

(A) Gio Ponti

(B) Enzo Mari

(C) Achille Castiglioni

(D) Ettore Sottsass

Q41. The famous phrase **"Form ever follows function"** is most closely associated with which designer or design thinker?

(A) Louis Sullivan (American architect, late 19th century), who coined the phrase in his 1896 essay.

(B) William Morris (Arts and Crafts Movement), who advocated handcraft against industrial production.

(C) Le Corbusier (International Style), who described a house as "a machine for living in".

(D) Dieter Rams (Braun industrial design), who articulated his "Ten Principles of Good Design".

Q42. In typography, **"tracking"** refers to:

(A) The vertical distance between successive baselines of text (also called leading or line-height).

(B) The uniform adjustment of letter-spacing across a selected range of text (a word, sentence, or paragraph).

(C) The fine-tuned spacing between a specific pair of adjacent letters to achieve visual balance (kerning).

(D) The height of capital letters measured from the baseline to the top of the uppercase letterform (cap height).

Q43. Which of the following is a **sans-serif** typeface?

(A) Garamond (a classical Old Style serif typeface based on 16th-century French letterforms)

(B) Georgia (a transitional serif typeface designed by Matthew Carter specifically for screen legibility)

(C) Helvetica (a neo-grotesque sans-serif typeface designed by Max Miedinger in 1957)

(D) Palatino (a humanist serif typeface designed by Hermann Zapf in 1948)

Q44. Which of the following CORRECTLY distinguishes between a **"typeface"** and a **"font"**?

(A) They are perfect synonyms; both terms refer identically to the overall visual design of a set of letterforms.

(B) A font is the complete design family (e.g., Helvetica), while a typeface is one particular style within that family.

(C) A typeface refers exclusively to digital type files, while a font refers exclusively to metal moveable type used in letterpress printing.

(D) A typeface is the overall design or style (e.g., Helvetica), while a font is a specific instance defined by weight, style, and size (e.g., Helvetica Bold 12 pt).

Q45. In typography, the **"x-height"** measures:

(A) The height of a typical lowercase letter such as *x*, *a*, or *n*, measured from the baseline to the top of the letter body (excluding ascenders such as in *h* or *d*).

(B) The height of capital letters measured from the baseline to the top of the uppercase letterform (cap height).

(C) The distance from the baseline to the lowest point of descending letters such as *g*, *p*, or *y* (the descender depth).

(D) The total point size of the typeface, measured from the top of the tallest ascender to the bottom of the deepest descender.

Q46. In branding, a **"wordmark"** (also called a logotype) is best described as:

(A) A purely abstract graphic symbol that represents a brand entirely without any text.

(B) A logo that consists solely of the company's name rendered in a distinctive, custom-designed typographic style.

(C) A combination mark that integrates both a graphic symbol and the company name together as a single unit.

(D) A monogram logo constructed exclusively from the initials of a company name.

Q47. In international branding standards and safety signage, which colour is most universally associated with **urgency, danger, and "stop"**?

(A) Orange (commonly used for warnings and general cautionary messaging)

(B) Yellow (used for general caution and hazard awareness)

(C) Red (universally used for stop signs, fire equipment, and danger warnings)

(D) Black (associated with premium positioning, authority, and power in branding)

Q48. In the traditional typographic measurement system, **1 pica** is equal to how many **points**?

(A) 72 points (there are 72 points in one inch, not one pica)

(B) 8 points

(C) 100 points (a centimetre-based metric, not the typographic pica)

(D) 12 points

Q49. In typography, a **"widow"** is defined as:

(A) A very short line — typically a single word or a short phrase — at the **end** of a paragraph that appears alone at the **top** of a new column or page, visually disconnected from the rest of the paragraph.

(B) A very short line at the **beginning** of a paragraph that is left stranded alone at the **bottom** of a column (also sometimes called an orphan).

(C) An excessively long em-dash used between clauses in editorial typography, creating an awkward gap in the text flow.

(D) A letter whose stroke descends below the baseline, such as g, j, p, q, or y.

Q50. In typography, the **"baseline"** is:

(A) The imaginary line at the top of capital letters that defines the maximum height of upper-case characters (cap height line).

(B) The invisible horizontal line on which most letters sit and from which measurements such as ascender height and descender depth are calculated.

(C) The line that marks the average height of lowercase letters without ascenders or descenders (the x-height line).

(D) The lowest boundary of the descenders of letters such as g, j, p, q, and y.

Detailed Solutions

Q1.

Solution

Concept — Proportion: Proportion is a fundamental design principle concerned with the *size relationships* between elements — both among elements within a composition and between each element and the overall design or canvas. Good proportion creates harmony and visual order; poor proportion makes compositions feel awkward or unbalanced.

Step 1 — Match the definition: Option (A) precisely captures this: the relative size relationship between elements within a composition, or between an element and the whole. This is the standard definition taught in design education.

Why other options are wrong:

- Option B: Using repeated motifs at equal intervals describes the principle of *repetition and rhythm*, not proportion.
- Option C: Lightness and darkness is the definition of *value*, one of the seven elements of design.
- Option D: Distributing equal visual weight on both sides of an axis describes *symmetrical balance*, not proportion.

Final Answer: Proportion defines the relative size relationship between design elements and the whole. $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q1

Q2.

Solution

Concept — Asymmetrical (Informal) Balance: Unlike symmetrical balance, which mirrors identical elements on both sides of an axis, *asymmetrical balance* achieves visual equilibrium by placing dissimilar elements of equivalent visual weight. A large, simple element on one side can balance multiple smaller, more complex elements on the other.

Step 1 — Identify the asymmetrical example: Option (B) — a large bold headline on the left counterbalanced by a cluster of smaller decorative elements of equal visual weight on the right — is the defining example of asymmetrical (informal) balance. The two sides are visually different but feel balanced.

Why other options are wrong:

- Option A: Identical columns mirrored about a vertical axis is *symmetrical* (formal) balance.
- Option C: Elements radiating uniformly from a centre point is *radial* balance.
- Option D: A photograph repeated identically top and bottom is *symmetrical* balance about a horizontal axis.

Final Answer: A large headline balanced by a cluster of smaller elements of equivalent visual weight demonstrates asymmetrical balance. $\Rightarrow$ B

Answer: (B) Go Back to Q2

Q3.

Solution

Concept — Radial Balance: Radial balance occurs when all design elements radiate outward from, or converge toward, a single central point, like spokes on a wheel or petals on a flower. The visual weight is distributed equally in all directions from the centre.

Step 1 — Identify radial balance: Option (C) — a snowflake with identical crystal arms radiating symmetrically from a central point — is the classic textbook example of radial balance in nature. Each arm radiates outward from the centre at equal angular intervals.

Why other options are wrong:

- Option A: Large type on the left balanced by smaller images on the right is *asymmetrical* balance.
- Option B: Upper and lower halves mirroring each other is *symmetrical* balance (about a horizontal axis).
- Option D: Elements decreasing in size from left to right demonstrate *gradation and perspective*, not radial balance.

Final Answer: A snowflake with arms radiating symmetrically outward from a central point is the definitive example of radial balance. $\Rightarrow$ C

Answer: (C) Go Back to Q3

Q4.

Solution

Concept — Scale and Emphasis: Scale refers to the relative size of objects compared to each other or to a standard reference. When a designer deliberately places an oversized object next to a normal-sized one of the same type, it violates the viewer's size expectations. This immediately *attracts attention* through the shock of the unexpected scale difference, creating both emphasis (a focal point) and strong visual contrast.

Step 1 — Identify the primary effect: Option (D) correctly identifies this as emphasis and visual contrast — the scale difference immediately draws the viewer's eye and creates a memorable focal point.

Why other options are wrong:

- Option A: Radial balance requires elements to radiate from a centre; a scale comparison between two objects does not create this.
- Option B: Rhythm requires repeated elements at intervals; two objects side by side do not constitute rhythm.
- Option C: Texture involves surface quality; size difference is not a texture effect.

Final Answer: An oversized object next to a normal one primarily creates emphasis and visual contrast. $\Rightarrow$ D

Answer: (D) Go Back to Q4

Q5.

Solution

Concept — Contrast: Contrast is the principle of placing visually different elements together to create interest, emphasis, and visual hierarchy. It works through differences in colour (light vs. dark), size (large vs. small), shape (round vs. angular), texture (smooth vs. rough), or typeface. Contrast prevents visual monotony and directs the viewer's attention.

Step 1 — Match the definition: Option (B) correctly states that contrast juxtaposes elements differing significantly in colour, size, shape, or texture, creating visual interest and emphasis.

Why other options are wrong:

- Option A: Repeating identical elements at regular intervals describes the

principle of *repetition* (which produces rhythm).

- Option C: All elements having equal visual weight describes *balance*, not contrast.
- Option D: Placing all elements at equal distances from each other describes *spacing and alignment*, not contrast.

Final Answer: Contrast juxtaposes elements that differ significantly in colour, size, shape, or texture to create interest and emphasis. $\Rightarrow$ B

Answer: (B) Go Back to Q5

Q6.

Solution

Concept — Repetition: Repetition is the design principle of using the same (or similar) element — such as a colour, shape, line weight, or texture — more than once throughout a composition. It creates visual *rhythm* (a sense of beat or tempo), *pattern* (predictable recurrence), and *unity* (the feeling that all elements belong together).

Step 1 — Identify what repetition creates: Option (A) correctly names all three outcomes of repetition: visual rhythm, pattern, and unity.

Why other options are wrong:

- Option B: A dominant focal point is created by *emphasis*, not repetition.
- Option C: Emphasising differences between elements is the principle of *contrast*.
- Option D: Progressive change from one end to the other describes *gradation*, not simple repetition.

Final Answer: Repetition primarily creates visual rhythm, pattern, and unity. $\Rightarrow$ A

Answer: (A) Go Back to Q6

Q7.

Solution

Concept — Visual Weight: Visual weight is the perceived "heaviness" of a design element — how much it attracts the viewer's attention. Factors that increase visual weight include: larger size, darker value, higher colour saturation, more complex shape, unusual or irregular placement, and strong contrast with surroundings.

Step 1 — Identify the single most effective factor: Option (C) — making an element *larger, darker, or more saturated* — is the primary and most effective way to increase visual weight. Larger size, darker tone, and vivid saturation are the three most influential factors.

Why other options are wrong:

- Option A: The lower-right corner is a position of *reduced* visual weight in Western reading culture; placing an element there does not increase its weight significantly.
- Option B: Pale or light colours carry *less* visual weight; this would decrease, not increase, weight.
- Option D: Reducing opacity makes an element blend into the background, which greatly *reduces* its visual weight.

Final Answer: Making an element larger, darker, or more saturated MOST increases its visual weight. $\Rightarrow$ C

Answer: (C) Go Back to Q7

Q8.

Solution

Concept — Variety: Variety is the design principle of introducing differences and diversification into a composition. It is the counterpart to unity: while unity holds a design together, variety adds *visual interest, excitement, and uniqueness*, preventing the viewer's eye from losing engagement through predictable repetition alone.

Step 1 — Identify the primary function: Option (D) precisely captures variety's function: introducing deliberate differences to prevent monotony and sustain the viewer's visual interest throughout the composition.

Why other options are wrong:

- Option A: Sharing a common colour palette to reinforce cohesion describes the principle of *unity/harmony*.

- Option B: Repeating the same element to create a pattern describes *repetition*.
- Option C: Aligning elements to a grid describes *alignment* and *rhythm*, not variety.

Final Answer: Variety's primary function is to prevent monotony by introducing deliberate differences among design elements. $\Rightarrow$ D

Answer: (D) Go Back to Q8

Q9.

Solution

Concept — Visual Movement: In 2D static design, the illusion of movement is created by visual cues that guide the viewer's eye in a specific direction. The most effective strategies are: *diagonal lines* (which are inherently more dynamic than horizontals or verticals), *gradual size changes in repeated shapes* (simulating perspective and motion), and *flowing curved lines* (which naturally suggest continuous motion like water or wind).

Step 1 — Match to the diagram: The diagram shows multiple flowing diagonal arrow-like lines all moving in the same direction, with one dominant central line. This matches Option (A): diagonal lines and curved flowing lines guiding the eye.

Why other options are wrong:

- Option B: Horizontal and vertical lines in a symmetrical grid create a *static, stable, ordered* feel — the opposite of movement.
- Option C: A single centred element with no directional cues creates a point of rest, not movement.
- Option D: Identical elements at equal intervals create *rhythm and pattern*, but without variation in size or direction, they do not suggest movement.

Final Answer: Diagonal lines, gradual size changes, and flowing curves best create the illusion of movement. $\Rightarrow$ A

Answer: (A) Go Back to Q9

Q10.

Solution

Concept — Gestalt Law of Continuity: The Law of Continuity states that the human eye tends to follow a smooth, continuous path when perceiving a series of elements. We naturally complete and continue paths (lines, curves, sequences) even when they are interrupted by gaps or other visual elements. We prefer to see the smoothest possible continuation of a line or curve.

Step 1 — Identify the correct example: Option (B) — dots arranged along a curving arc that the eye follows as a continuous path despite gaps — is the textbook example of continuity. The eye "connects the dots" along the smooth curve, even where gaps exist.

Why other options are wrong:

- Option A: Tight groups of dots perceived as clusters demonstrate the Law of *Proximity*.
- Option C: Two triangles appearing to form a star because of their similar shape demonstrates the Law of *Similarity* and *Closure*.
- Option D: A red square drawing the eye due to value contrast demonstrates the Law of *Figure-Ground* and *Prägnanz*, not continuity.

Final Answer: A series of dots along a curved arc followed as a continuous path demonstrates the Law of Continuity. $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q10

Q11.

Solution

Concept — Reflection about a Vertical Axis: Reflecting a shape about a *vertical axis* (a mirror placed vertically) reverses left and right while keeping up and down unchanged. For a right-pointing arrow: the rectangular body (which was on the left) stays as a body, and the arrowhead (which pointed right) now points left.

Step 1 — Apply the reflection: The original shape is a right-pointing arrow (arrowhead faces right, rectangular shaft extends to the left). After reflection about a vertical axis (horizontal flip): the arrowhead now faces *left*, and the rectangular shaft extends to the *right*. This is precisely a left-pointing arrow — Option (C).

Why other options are wrong:

- Option A: An arrow pointing upward results from a *90° clockwise rotation*,

not a vertical-axis reflection.

- Option B: An arrow pointing right but upside-down results from a *horizontal axis reflection*, not a vertical one.
- Option D: An arrow pointing downward results from a *90° anti-clockwise rotation*, not a vertical-axis reflection.

Final Answer: Reflecting the right-pointing arrow about a vertical axis produces a left-pointing arrow. $\Rightarrow$ C

Answer: (C) Go Back to Q11

Q12.

Solution

Concept — Pattern Matrix (Additive Rule): The matrix follows the rule: the number of dots in each cell equals the row number plus the column number minus one. Alternatively: moving one step right adds 1 dot, and moving one step down also adds 1 dot.

Step 1 — Identify the rule:

- Row 1: 1, 2, 3 (increases by 1 each column)
- Row 2: 2, 3, 4 (increases by 1 each column; also each cell is one more than the cell directly above)
- Row 3: 3, 4, **?**

Following the pattern: Row 3, Column 3 = 4 + 1 = **5 dots**.

Why other options are wrong:

- Option A (3 dots): Repeating the count from the diagonal cell (Row 2, Col 2) ignores the consistent +1 rule.
- Option B (4 dots): This repeats the count from the cell directly to the left (Row 3, Col 2), but the rule requires adding 1.
- Option C (6 dots): This would imply a different rule (doubling), which is not consistent with the matrix.

Final Answer: Applying the rule (row + column -1): Row 3, Col 3 = $3+3-1=5$ dots, arranged in a quincunx. $\Rightarrow$ D

Answer: (D) Go Back to Q12

Q13.

Solution

Concept — Counting Rectangles in a Grid: To count all possible rectangles (including non-unit sizes) in an $m \times n$ grid of unit squares, we select any 2 of the $(m+1)$ horizontal lines and any 2 of the $(n+1)$ vertical lines. Each pair of horizontal lines combined with each pair of vertical lines defines exactly one rectangle.

Step 1 — Apply the formula: The grid has 2 rows and 3 columns of unit squares, which means:

- Horizontal boundaries: $2 + 1 = 3$ lines. Choose 2: $\binom{3}{2} = 3$.
- Vertical boundaries: $3 + 1 = 4$ lines. Choose 2: $\binom{4}{2} = 6$.

$$\text{Total rectangles} = \binom{3}{2} \times \binom{4}{2} = 3 \times 6 = \mathbf{18}$$

Why other options are wrong:

- Option B (12): Undercounts by omitting some multi-unit sizes.
- Option C (6): Counts only the 1×1 unit squares.
- Option D (24): Overcounts; no valid formula produces 24 for a 2×3 grid.

Final Answer: Total rectangles $= \binom{3}{2} \times \binom{4}{2} = 3 \times 6 = 18. \Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q13

Q14.

Solution

Concept — Letter Rotation (180°): Rotating a shape 180° is equivalent to turning it "upside down and reversed". The letter "W" consists of two "V" shapes placed side by side, with the points facing downward. Rotating this 180°: the two "V" points now face upward, creating a shape with two "∧" peaks pointing upward — which is exactly the capital letter "M".

Step 1 — Trace the rotation: W (wide wedges pointing down) $\xrightarrow{180}$ M (wide wedges pointing up). The overall width and the number of peaks are preserved; only the orientation flips.

Why other options are wrong:

- Option A (N): "N" results from rotating "N" itself 180° (it has rotational symmetry issues); it does not result from rotating "W".

- Option C (Z): "Z" results from rotating "S" or "Z" itself; it is unrelated to "W".
- Option D (E): "E" has three horizontal bars and a vertical stem; it bears no resemblance to a 180°-rotated "W".

Final Answer: "W" rotated 180° most closely resembles "M". $\Rightarrow$ B

Answer: (B) Go Back to Q14

Q15.

Solution

Concept — Counting Cubes in a Staircase: A staircase with 3 steps, where each column is 1 unit wide and 1 unit deep, consists of three vertical columns of different heights. The total cube count is the sum of cubes in each column.

Step 1 — Count column by column:

- Tallest column (left): 3 cubes high $\times$ 1 wide $\times$ 1 deep = **3 cubes**
- Middle column: 2 cubes high $\times$ 1 wide $\times$ 1 deep = **2 cubes**
- Shortest column (right): 1 cube high $\times$ 1 wide $\times$ 1 deep = **1 cube**

$$\text{Total} = 3 + 2 + 1 = \mathbf{6} \text{ unit cubes}$$

Why other options are wrong:

- Option A (3): Counts only the number of *steps* (or only the topmost cubes), ignoring the cubes below.
- Option B (4): No valid counting method for this staircase yields 4.
- Option D (9): Overcounts, perhaps by treating the staircase as a $3 \times 3 \times 1$ block instead of a stepped shape.

Final Answer: Total cubes $= 3 + 2 + 1 = 6$. $\Rightarrow$ C

Answer: (C) Go Back to Q15

Q16.

Solution

Concept — Triangular Numbers: The n-th triangular number is $T_n = \frac{n(n+1)}{2}$. Each successive term is obtained by adding the *next natural number*: $T_1 = 1$, $T_2 = 1+2 = 3$, $T_3 = 3+3 = 6$, $T_4 = 6+4 = 10$, $T_5 = 10+5 = 15$, $T_6 = 15+6 = \mathbf{21}$.

Step 1 — Find the next term: After 15, the next step adds 6 (the 6th natural number):

$$T_6 = 15 + 6 = \mathbf{21}$$

Why other options are wrong:

- Option B (18): Adds only 3 — incorrect; the increment at each step grows by 1.
- Option C (20): Adds 5 — incorrect; the correct increment is $+6$.
- Option D (25): Adds 10 — incorrect; this over-adds.

Final Answer: The next triangular number after 15 is $15 + 6 = 21$. $\Rightarrow$ A

Answer: (A) Go Back to Q16

Q17.

Solution

Concept — Orthographic Front Elevation of an Inverted Cone: When a cone is placed apex-down (point at the bottom) and viewed from the front, we see its *silhouette outline*. The widest part (the circular base) is at the top, and the apex (point) is at the bottom. The silhouette of this view is an **isosceles triangle with the apex pointing downward**.

Step 1 — Visualise the front view: Looking at the inverted cone from the front: the outline traces a wide, flat top edge (representing the circular base's diameter) and two sloping straight sides that converge at the apex point at the bottom, forming a downward-pointing triangle.

Why other options are wrong:

- Option A: A circle with a dot at the top would be the *top view* (bird's-eye view) of an upright cone.
- Option B: A rectangle would be the front view of a cylinder, not a cone.
- Option C: A plain circle would be seen if you looked directly along the axis of the cone (end-on view), not from the front.

Final Answer: The front elevation of an apex-down cone is an isosceles triangle with the apex pointing downward. $\Rightarrow$ D

Answer: (D) Go Back to Q17

Q18.

Solution

Concept — Modifying a Cube by Corner Removal: A standard cube has 6 square faces. When one corner is removed by a single straight planar cut across that corner, the cut creates **one new triangular face** (the triangular cross-section exposed by the cut). Each of the three original square faces adjacent to that corner loses a small triangular portion but remains as a modified (slightly irregular) quadrilateral face. The original count of 6 faces becomes 6 + 1 = **7 faces**.

Step 1 — Count the faces:

- Original cube: 6 faces.
- One planar cut across one corner adds: 1 new triangular face.
- Total: $6 + 1 = \mathbf{7}$ faces.

Why other options are wrong:

- Option A (6): Ignores the new triangular face created by the cut.
- Option C (8): Would require two separate cuts, not one.
- Option D (9): Would require cutting multiple corners.

Final Answer: Cutting one corner from a cube adds 1 new triangular face, giving $6 + 1 = 7$ faces total. $\Rightarrow$ B

Answer: (B) Go Back to Q18

Q19.

Solution

Concept — Rotational Series (45° CW per step): Each arrow is rotated 45° clockwise from the previous. Starting from 90° (pointing up), each step subtracts 45° from the current bearing.

Step 1 — Track each arrow:

- Arrow 1: 90° = **Up (North)**
- Arrow 2: 90° − 45° = 45° = **Up-Right (Northeast)**

- Arrow 3: $45° - 45° = 0°$ = **Right (East)**
- Arrow 4: $0° - 45° = -45° = 315°$ = **Down-Right (Southeast)**
- Arrow 5: $315° - 45° = 270°$ = **Down (South)**

Why other options are wrong:

- Option A (Left/West = 180°): This is 5 steps after "Right" (East), not 1.
- Option B (Up-Right/NE = 45°): This is Arrow 2, not Arrow 5.
- Option D (Down-Left/SW = 225°): This would be Arrow 6 if the sequence continued, not Arrow 5.

Final Answer: Arrow 5 points **down** (due south, 270°). $\Rightarrow$ C

Answer: (C) Go Back to Q19

Q20.

Solution

Concept — Net of a Triangular Prism: A triangular prism has 5 faces: 2 congruent triangular faces (the two ends) and 3 rectangular faces (the lateral sides). For a valid net: (1) the 3 rectangles must be connected in a strip (they will form the three lateral faces when wrapped around), and (2) the 2 triangles must be attached at *opposite ends* of the strip so they can fold to close both ends of the prism without overlapping.

Step 1 — Evaluate each net:

- **Net A** (invalid): Both triangles on the *same* side of the strip. When folded, both triangles would try to cover the *same* end of the prism, leaving the other end open.
- **Net B** (invalid): One triangle is *detached* (not connected to any rectangle). It cannot fold into place.
- **Net C** (invalid): Both triangles are on the *same* side (bottom) of the strip. Same problem as Net A.
- **Net D** (valid): One triangle on the top of the first rectangle, one triangle on the bottom of the last rectangle. When the three rectangles are wrapped around, the two triangles fold to close the two opposite triangular ends correctly.

Final Answer: Net D — triangles at opposite ends of the rectangular strip — is the valid triangular prism net. $\Rightarrow$ D

Answer: (D) Go Back to Q20

Q21.

Solution

Concept — Analogous Colour Scheme: An analogous colour scheme selects colours that sit *next to each other* on the colour wheel, typically spanning 3–5 adjacent hues within a 90° arc. Because these colours share a common hue family (e.g., all warm or all cool), they create compositions that feel harmonious, unified, and visually comfortable.

Step 1 — Identify the correct definition: Option (A) correctly states that analogous colours are adjacent to each other on the colour wheel (e.g., red, red-orange, and orange). These adjacent colours blend naturally due to their shared hue relationships.

Why other options are wrong:

- Option B: Colours directly opposite each other describe a *complementary* scheme (maximum contrast).
- Option C: Colours equidistant at 120° apart describe a *triadic* scheme (three equally spaced hues).
- Option D: All tints and shades of a single hue describe a *monochromatic* scheme.

Final Answer: Analogous colours are adjacent to each other on the colour wheel.
$\Rightarrow$ A

Answer: (A) Go Back to Q21

Q22.

Solution

Concept — Triadic Colour Scheme: A triadic scheme uses three colours that are *equidistant* on the colour wheel — exactly 120° apart. The most fundamental triadic scheme in the traditional RYB (artist's) colour model uses the three primary colours: **Red, Yellow, and Blue**. These are the base pigment primaries and, as shown in the diagram, sit 120° apart.

Step 1 — Apply the rule: The diagram shows three equally spaced points at 90°, 210°, and 330° (labelled R, B, Y), connected by an equilateral triangle. Each arc subtends 120°. Option (B) correctly states 120° and names the three primary

colours Red, Yellow, and Blue.

Why other options are wrong:

- Option A: 90° spacing gives a *tetradic* (square) scheme with 4 colours, not 3.
- Option C: 60° spacing gives three adjacent colours within one 180° arc — those would be closer to an analogous scheme.
- Option D: 180° spacing gives only 2 colours — a complementary pair, not a triadic scheme.

Final Answer: Triadic colours are 120° apart; the primary triad is Red, Yellow, and Blue. ⇒ B

Answer: (B) Go Back to Q22

Q23.

Solution

Concept — Additive Colour Mixing (RGB Light): In additive mixing, coloured light beams are combined and the mixture appears *lighter* (combining all three primaries gives white). The three primary colours of light are Red, Green, and Blue. Their pairwise mixtures are the secondary colours of light: Red + Green = Yellow; Green + Blue = Cyan; **Red + Blue = Magenta**.

Step 1 — Apply the additive rule: Red light + Blue light = **Magenta**. This is the standard result of RGB additive mixing.

Why other options are wrong:

- Option A (Yellow): Yellow is produced by Red + Green in additive mixing — not Red + Blue.
- Option B (Cyan): Cyan is produced by Green + Blue in additive mixing — not Red + Blue.
- Option C (White): White requires all three primaries together: Red + Green + Blue = White.

Final Answer: In RGB additive mixing, Red + Blue = Magenta. ⇒ D

Answer: (D) Go Back to Q23

Q24.

Solution

Concept — CMYK Colour Model: CMYK stands for **Cyan, Magenta, Yellow, and Key**. The "K" stands for *Key*, which refers to the *key printing plate* — the plate that carries the most detail and is used to register (key) all other colour plates. Traditionally this is the black plate, as black ink provides the sharpest detail, outline, and contrast in print. ("K" is used instead of "B" to avoid confusion with Blue in the RGB model.)

Step 1 — Identify the correct meaning: Option (C) correctly states that K stands for "Key" (the key plate, typically black). This is the universally accepted and standard explanation in print and graphic design education.

Why other options are wrong:

- Option A (Khaki): Khaki is a specific colour, not a component of the CMYK model; this is fabricated.
- Option B (Kolor): The German word for colour is "Farbe", not "Kolor"; this option is invented.
- Option D (Krypton): Krypton is a noble gas element; it has nothing to do with printing chemistry.

Final Answer: "K" in CMYK stands for **Key** (the key plate, typically black). $\Rightarrow$ C

Answer: (C) Go Back to Q24

Q25.

Solution

Concept — Colour Psychology: Purple and Royalty: In Western cultural tradition, **purple** (violet) has been the colour most consistently associated with royalty, luxury, and wisdom. Historically, purple dye (Tyrian purple) was extraordinarily expensive and rare — only royalty and the wealthiest individuals could afford garments dyed in it. This centuries-old association has made purple the default "royal" and "luxury" colour in Western branding and design.

Step 1 — Identify the correct colour: Option (A) — Purple (violet) — is the historically and culturally established colour of royalty and wisdom in the Western tradition.

Why other options are wrong:

- Option B (Gold/Yellow): Gold is associated with wealth and achievement,

but not specifically royalty in the same historical sense as purple.

- Option C (Crimson/Red): Red is associated with power, passion, urgency, and national symbols, but not primarily wisdom or royalty.
- Option D (Midnight Blue): Dark blue is associated with authority, trust, and professionalism, but not royal luxury to the same degree.

Final Answer: Purple (violet) is most strongly associated with royalty, luxury, and wisdom. $\Rightarrow$ A

Answer: (A) Go Back to Q25

Q26.

Solution

Concept — Saturation (Chroma): In colour theory, the three fundamental properties of colour are *Hue* (the colour itself, e.g., red or blue), *Value* (lightness or darkness), and *Saturation* (also called chroma or intensity). Saturation describes how *pure, vivid, and undiluted* a colour appears. A fully saturated colour contains no grey; as saturation decreases, the colour becomes duller and moves toward neutral grey.

Step 1 — Match the definition: Option (B) correctly defines saturation as the *intensity or purity* of a colour — how vivid and undiluted it appears compared with a neutral grey of the same value.

Why other options are wrong:

- Option A: Lightness or darkness is *value*, not saturation.
- Option C: Warmth or coolness is the *colour temperature* dimension, not saturation.
- Option D: The hue angle in degrees describes the *hue*, not saturation.

Final Answer: Saturation refers to the intensity or purity of a colour. $\Rightarrow$ B

Answer: (B) Go Back to Q26

Q27.

Solution

Concept — Split-Complementary Scheme: A split-complementary scheme is a modification of the complementary scheme. Instead of using the direct complement of the base colour (which is directly opposite on the wheel), it uses the *two colours on either side of the complement*. This gives the contrast of a complementary scheme while being somewhat softer and less jarring, and it uses three colours in total.

Step 1 — Identify the correct description: Option (C) correctly defines the split-complementary scheme: **3 colours** — one base colour plus the two colours immediately adjacent to (flanking) its complement.

Why other options are wrong:

- Option A (2 colours, base + direct complement): That is a standard *complementary* scheme, not split-complementary.
- Option B (4 colours at 90° intervals): That describes a *tetradic* (square/rectangular) scheme.
- Option D (6 colours equally spaced at 60°): That describes a *hexadic* (six-colour) scheme.

Final Answer: A split-complementary scheme uses 3 colours: one base plus the two neighbours of its complement. ⇒ C

Answer: (C) Go Back to Q27

Q28.

Solution

Concept — Simultaneous Contrast (Chevreul, 1839): Michel Eugène Chevreul discovered that adjacent colours mutually influence each other's perceived appearance. Each colour *shifts* the neighbouring colour toward its own complement: a grey square on a dark background appears lighter than the same grey square on a light background (as shown in the diagram). The colours appear *more different* (more contrasted) from each other than they would if viewed in isolation.

Step 1 — Apply Chevreul's law: Option (D) correctly states that two colours placed next to each other will each appear **more different** from each other — more intensified or shifted in apparent hue — than if viewed in isolation.

Why other options are wrong:

- Option A (more similar): The opposite is true; simultaneous contrast makes colours appear more different, not similar.
- Option B (lighter): Lightening is only one possible perceptual outcome, and only for the darker neighbour; the law is about *difference*, not just lightness.
- Option C (cooler): Simultaneous contrast can shift perceived temperature, but the universal description of the law is about increased perceived difference — not specifically cooling.

Final Answer: Chevreul's Law: adjacent colours each appear more different (more intensified) than if viewed alone. $\Rightarrow$ D

Answer: (D) Go Back to Q28

Q29.

Solution

Concept — Tool-to-Craftsperson Analogy: The analogy "Brush : Painter" expresses the relationship between a *primary hand tool* and the *craftsperson who wields it*. A brush is the quintessential working tool of a painter. The question asks: what is to a sculptor as a brush is to a painter? The **chisel** is the primary shaping tool used by a sculptor, so Chisel : Sculptor mirrors the relationship exactly.

Step 1 — Complete the analogy: Brush : Painter :: Chisel : **Sculptor**. A chisel is used to carve and shape stone, marble, and wood — the core activity of a sculptor.

Why other options are wrong:

- Option B (Carpenter): A carpenter's primary tools are saws, hammers, and planes, not chisels (though chisels are sometimes used). The chisel is more definitively associated with sculpting.
- Option C (Architect): An architect uses drawing instruments and CAD tools; a chisel is not their primary tool.
- Option D (Weaver): A weaver uses shuttles and looms; a chisel is irrelevant to weaving.

Final Answer: Chisel : Sculptor (just as Brush : Painter). $\Rightarrow$ A

Answer: (A) Go Back to Q29

Q30.

Solution

Concept — Software Classification: Photoshop (raster image editing), Illustrator (vector graphics), and InDesign (page layout/editorial design) are all Adobe software tools whose *primary domain* is 2D visual communication and graphic design. **Autodesk Revit**, by contrast, is a Building Information Modelling (BIM) application used in architecture, structural engineering, and MEP (mechanical/electrical/plumbing) design — a completely different domain focused on 3D building documentation, not 2D visual communication.

Step 1 — Identify the odd one out: Revit is the software that does *not* primarily serve 2D visual communication or graphic design.

Why other options are wrong:

- Option A (Photoshop): Core graphic design and photo-manipulation software; squarely in 2D visual communication.
- Option C (InDesign): The industry-standard page layout and editorial design tool; core 2D visual communication.
- Option D (Illustrator): The industry-standard vector illustration and logo design tool; core 2D graphic design.

Final Answer: Autodesk Revit (BIM software for architecture) does not primarily serve 2D visual communication. $\Rightarrow$ B

Answer: (B) Go Back to Q30

Q31.

Solution

Concept — Design Riddle / Object Recognition: The riddle describes an object using metaphorical attributes: a "face" (the dial face), "hands" (the clock hands), and the function of measuring time. The riddle is a classic lateral thinking exercise to identify a **clock**.

Step 1 — Decode the riddle:

- "I have a face but no eyes" $\rightarrow$ the clock *face* (dial)
- "I have hands but no fingers" $\rightarrow$ the clock *hands* (hour, minute, second)
- "I measure time but I am not alive" $\rightarrow$ a clock measures time; it is an inanimate object

This is the definition of a clock. Option (C) is correct.

Why other options are wrong:

- Option A (Sundial): A sundial has no hands (it uses a shadow). It also has no "face" in the conventional sense.
- Option B (Metronome): A metronome measures musical tempo, not time broadly; it has a pendulum arm, not "hands" in the clock sense.
- Option D (Calendar): A calendar has no "hands" and does not directly "measure" time — it displays dates.

Final Answer: The riddle describes a **clock** (face = dial, hands = clock hands, measures time). $\Rightarrow$ C

Answer: (C) Go Back to Q31

Q32.

Solution

Concept — Design Thinking: Define Phase: In the Stanford Design Thinking model (Empathise $\rightarrow$ Define $\rightarrow$ Ideate $\rightarrow$ Prototype $\rightarrow$ Test), the *Empathise* phase gathers user insights through research, and the **Define** phase synthesises those insights into a clear, actionable **Problem Statement** (also called a Point of View or POV statement). This statement frames the user's core need in a way that guides ideation.

Step 1 — Identify the Define phase output: Option (A) correctly identifies the **Problem Statement (POV statement)** as the key output of the Define phase. It converts raw research observations into a focused design challenge.

Why other options are wrong:

- Option B (prototypes ready for testing): Prototypes are produced in the *Prototype* phase, not Define.
- Option C (manufacturing specifications): This is an output of the *engineering/production* phase, which comes after design thinking concludes.
- Option D (user testing report with metrics): This is an output of the *Test* phase.

Final Answer: The Define phase produces a clear **Problem Statement (Point of View statement)** framing the user's core need. $\Rightarrow$ A

Answer: (A) Go Back to Q32

Q33.

Solution

Concept — Material-to-Craftsperson Analogy: The analogy "Wood : Carpenter" expresses the relationship between a *primary raw material* and the *craftsperson who works with that material*. A carpenter works primarily with wood. The question asks: who is to clay as a carpenter is to wood? The answer is a **Potter** — the craftsperson who shapes clay (on a potter's wheel or by hand) to make vessels, sculptures, and ceramics.

Step 1 — Complete the analogy: Wood : Carpenter :: Clay : **Potter**. Clay is the primary working material of a potter, just as wood is the primary working material of a carpenter.

Why other options are wrong:

- Option A (Painter): A painter works with paint on canvas or walls; clay is not their primary material.
- Option B (Weaver): A weaver works with thread and fibre; clay is not relevant.
- Option C (Architect): An architect designs buildings; they do not personally work clay as their primary material.

Final Answer: Clay : Potter (just as Wood : Carpenter). $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q33

Q34.

Solution

Concept — Letter-Value Code (A = 1 to Z = 26): Using the standard mapping A=1, B=2, C=3, ..., Z=26, we assign a numeric value to each letter and sum them.

Step 1 — Calculate the sum for "BLUE":

$$B = 2, \quad L = 12, \quad U = 21, \quad E = 5$$

$$\text{Sum} = 2 + 12 + 21 + 5 = \mathbf{40}$$

Option (B) gives 40, which is correct.

Why other options are wrong:

- Option A (35): Arithmetic error; perhaps using L=11 or U=17 — incorrect

values.

- Option C (45): Arithmetic error; perhaps using U=25 or L=14 — incorrect values.
- Option D (30): Arithmetic error; significantly undercounts the sum.

Final Answer: B(2) + L(12) + U(21) + E(5) = 40. $\Rightarrow$ B

Answer: (B) Go Back to Q34

Q35.

Solution

Concept — Inclusive and Universal Design: Designing for users with arthritis requires addressing the specific functional limitations: *reduced grip strength* (difficulty squeezing or pinching) and *reduced dexterity* (difficulty with fine motor control). A good solution must make holding, lifting, and controlling the cup easier and safer without relying on a strong pinch grip.

Step 1 — Evaluate against the brief: Option (C) — a **large D-shaped handle with a thumb rest and a non-slip textured base** — directly addresses both challenges:

- The large handle allows the whole hand (or multiple fingers) to grip, distributing load across a larger area.
- The thumb rest stabilises the grip without requiring a pinch.
- The non-slip base prevents the cup from sliding during placement.

Why other options are wrong:

- Option A (fine bone china): The material affects weight and aesthetics but does not improve grip security for arthritic users.
- Option B (reduced height): A shorter cup is easier to store but does not address grip or dexterity limitations.
- Option D (decorative pattern): Surface decoration is purely aesthetic and does not address functional grip limitations.

Final Answer: A large D-shaped handle with a thumb rest and non-slip base most directly addresses arthritis-related grip limitations. $\Rightarrow$ C

Answer: (C) Go Back to Q35

Q36.

Solution

Concept — Art Nouveau (c. 1890–1910): Art Nouveau was a decorative arts and architecture movement that rejected historical revival styles in favour of *organic, natural forms* as the source of ornament. Its defining visual characteristics are: sinuous, curvilinear lines (the "whiplash curve"), asymmetrical compositions, motifs derived from flowers, plants, insects, and the female figure, and a rejection of rigid geometric structure.

Step 1 — Match the style to Art Nouveau: Option (D) correctly describes Art Nouveau: organic flowing lines inspired by natural forms, sinuous asymmetrical curves, and whiplash decorative motifs.

Why other options are wrong:

- Option A (bold geometric patterns, chrome, marble): This describes *Art Deco* (1920s–1930s).
- Option B (flat primary colour planes and black grid lines): This describes *De Stijl* (Netherlands, 1917).
- Option C (minimalist typographic grids and sans-serif type): This describes the *International Typographic Style* (Swiss Style, 1950s).

Final Answer: Art Nouveau is characterised by organic flowing lines, sinuous natural curves, and asymmetrical decorative motifs. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q36

Q37.

Solution

Concept — De Stijl (1917): De Stijl ("The Style") was a Dutch artistic movement founded in 1917. Its key thinker and visual practitioner was **Piet Mondrian**, whose mature paintings ("Neo-Plasticism") used only *horizontal and vertical black lines* to create a flat grid, with the enclosed planes filled in primary colours (red, blue, yellow) and neutrals (black, white, grey). This radically reductive visual vocabulary was enormously influential on 20th-century design, architecture, and typography.

Step 1 — Identify the artist and characteristics: Option (A) correctly names Piet Mondrian and accurately describes De Stijl's visual signature: flat primary colour planes separated by bold black grid lines.

Why other options are wrong:

- Option B (Dalí): Salvador Dalí was a Spanish Surrealist (1920s–1980s); he had no involvement with De Stijl.
- Option C (Klimt): Gustav Klimt was an Austrian Symbolist and founder of the Vienna Secession; no connection to De Stijl.
- Option D (Malevich): Kazimir Malevich founded *Suprematism* (Russia, 1915), not De Stijl, though both were geometric abstraction movements.

Final Answer: De Stijl is associated with Piet Mondrian and primary colours in a black orthogonal grid. ⇒ A

Answer: (A) Go Back to Q37

Q38.

Solution

Concept — Wassily Chair and Marcel Breuer: The Wassily Chair (Model B3, 1925–1926) was designed by **Marcel Breuer** while he was a student and later a workshop master at the Bauhaus in Dessau. Inspired by the steel frame of a bicycle, Breuer pioneered the use of *bent tubular steel* as a furniture material. The chair's canvas straps replaced a traditional solid seat and back, creating an elegant, lightweight, and industrial aesthetic. It was named "Wassily" in honour of painter Wassily Kandinsky.

Step 1 — Identify the designer: Option (B) — Marcel Breuer — is correct. He was the Bauhaus workshop master who created this landmark piece.

Why other options are wrong:

- Option A (Walter Gropius): Gropius founded the Bauhaus; he was an architect and educator, not the designer of the Wassily Chair.
- Option C (Mies van der Rohe): Mies designed the Barcelona Chair and the Brno Chair — not the Wassily.
- Option D (László Moholy-Nagy): Moholy-Nagy was a Bauhaus master known for typography and light-space experiments; not for this chair.

Final Answer: The Wassily Chair was designed by **Marcel Breuer** at the Bauhaus in 1925. ⇒ B

Answer: (B) Go Back to Q38

Q39.

Solution

Concept — Paul Rand and the IBM Logo: Paul Rand was one of the greatest American graphic designers of the 20th century. Among his most celebrated achievements was the redesign of the **IBM** logo in 1956 and its subsequent refinement into the iconic 8-stripe (1972) and 13-stripe (1967) horizontal-line versions. The stripes were a bold, modernist graphic device that gave IBM its timeless, instantly recognisable corporate identity.

Step 1 — Identify the company: Option (C) — IBM — is the company for which Paul Rand designed the famous striped horizontal-line logo.

Why other options are wrong:

- Option A (Nike): The Nike "swoosh" was designed by Carolyn Davidson in 1971 — not Paul Rand.
- Option B (Apple): The bitten apple logo was created by Rob Janoff in 1977 — not Paul Rand.
- Option D (Coca-Cola): The Coca-Cola script logotype originates from 1887 penmanship by Frank Mason Robinson — not Paul Rand.

Final Answer: Paul Rand designed the iconic striped horizontal-line logo for **IBM**.
$\Rightarrow$ C

Answer: (C) Go Back to Q39

Q40.

Solution

Concept — The Memphis Group (1981): The Memphis Group was a postmodern Italian design collective founded in Milan in 1981 by **Ettore Sottsass**, the Austrian-Italian architect and designer. Memphis challenged the austerity of Modernist "good design" with exuberant, playful, rule-breaking objects: pastel colours, bold patterns (squiggles, dots, zigzags), unexpected material combinations, and asymmetrical geometric forms. The group was active until 1988 and profoundly influenced postmodern design.

Step 1 — Identify the founder: Option (D) — Ettore Sottsass — is correct. He was the visionary leader who gathered the Memphis Group.

Why other options are wrong:

- Option A (Gio Ponti): Gio Ponti was an influential Italian modernist architect

and designer (1891–1979); he died before Memphis was founded.
- Option B (Enzo Mari): Enzo Mari was a prominent Italian designer associated with rationalist and anti-design thinking — not the founder of Memphis.
- Option C (Achille Castiglioni): Castiglioni was a celebrated Italian industrial designer (Arco lamp, Mezzadro stool) but was not the founder of Memphis.

Final Answer: The Memphis Group (1981) was founded by **Ettore Sottsass**. $\Rightarrow$ D

Answer: (D) Go Back to Q40

Q41.

Solution

Concept — "Form Ever Follows Function" / Louis Sullivan: This famous design maxim was coined by **Louis Sullivan** (1856–1924), the American architect often called the "father of the skyscraper" and the "father of Modernism" in architecture. The phrase appeared in his 1896 essay *"The Tall Office Building Artistically Considered"* and became one of the most influential principles in 20th-century design and architecture, asserting that a building's or object's visual form should emerge from and reflect its intended purpose.

Step 1 — Identify the correct attribution: Option (A) correctly attributes the phrase to Louis Sullivan, an American architect of the late 19th century.

Why other options are wrong:

- Option B (William Morris): Morris's maxim was closer to "have nothing in your house that you do not know to be useful, or believe to be beautiful" — different emphasis on craft.
- Option C (Le Corbusier): Le Corbusier's famous phrase was "a house is a machine for living in" — different from Sullivan's.
- Option D (Dieter Rams): Rams articulated "Ten Principles of Good Design"; his phrase "good design is as little design as possible" is different.

Final Answer: "Form ever follows function" was coined by **Louis Sullivan** in 1896. $\Rightarrow$ A

Answer: (A) Go Back to Q41

Q42.

Solution

Concept — Tracking in Typography: Typography has three primary spacing controls: *leading* (vertical space between lines), *kerning* (space adjusted between specific letter pairs), and *tracking* (also called letter-spacing). Tracking applies a *uniform* space adjustment *across all characters* in a selected range of text — a word, a line, or an entire paragraph. Increasing tracking "opens up" the text; decreasing tracking "tightens" it.

Step 1 — Match the definition: Option (B) correctly defines tracking as the uniform adjustment of letter-spacing across a selected range of text.

Why other options are wrong:

- Option A: Vertical space between successive baselines is *leading* (line-height).
- Option C: Adjusting space between a *specific pair* of adjacent letters is *kerning*, not tracking.
- Option D: The height of capital letters is the *cap height* — a measurement, not a spacing adjustment.

Final Answer: Tracking is the uniform letter-spacing adjustment applied across a selected range of text. $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q42

Q43.

Solution

Concept — Sans-Serif Typefaces: A sans-serif typeface lacks the small decorative strokes (serifs) at the ends of letterform strokes. **Helvetica** is arguably the world's most famous sans-serif typeface — a neo-grotesque sans-serif designed by Max Miedinger (with Eduard Hoffmann) in 1957 for the Haas Type Foundry in Switzerland. It is the quintessential neutral, clean sans-serif and is used globally in signage, corporate identity, and wayfinding systems.

Step 1 — Identify the sans-serif: Option (C) — **Helvetica** — is a sans-serif typeface.

Why other options are wrong:

- Option A (Garamond): A classical Old Style *serif* typeface; it has prominent serifs modelled on 16th-century French letterforms.

- Option B (Georgia): A transitional *serif* typeface designed by Matthew Carter in 1993 for Microsoft.
- Option D (Palatino): A humanist *serif* typeface designed by Hermann Zapf in 1948; widely used in books and formal documents.

Final Answer: Helvetica is a sans-serif typeface. $\Rightarrow$ C

Answer: (C) Go Back to Q43

Q44.

Solution

Concept — Typeface vs. Font: In precise typographic terminology (originating in the era of metal type): a **typeface** is the *design* or *style* of letterforms — a complete set of characters sharing a consistent visual design (e.g., "Helvetica" or "Garamond"). A **font** is a *specific physical or digital instance* of a typeface defined by a particular *weight, style, and size* (e.g., "Helvetica Bold 12 pt" or "Garamond Italic 10 pt"). In everyday non-technical speech the terms are often used interchangeably, but in design education the distinction matters.

Step 1 — Identify the correct distinction: Option (D) correctly states: typeface = the design/style; font = a specific weight, style, and size instance.

Why other options are wrong:

- Option A: Calling them synonyms is technically imprecise and does not distinguish between design and instance.
- Option B: This reverses the definitions; the *typeface* is the family (the design), not the font.
- Option C: This incorrectly ties the terms to medium (digital vs. metal); the distinction is conceptual (design vs. instance), not medium-based.

Final Answer: A typeface is the overall design/style; a font is a specific weight/size instance of that design. $\Rightarrow$ D

Answer: (D) Go Back to Q44

Q45.

Solution

Concept — X-Height: The x-height is one of the most important metrics in typography. It is defined as the distance from the *baseline* (the line on which letters sit) to the top of a *lowercase letter without an ascender* — specifically the letter "x" (which has no ascender or descender and a flat top), hence the name. X-height strongly influences the apparent legibility and size of a typeface: two fonts at the same point size may look very different if their x-heights differ.

Step 1 — Match the definition: Option (A) correctly defines x-height: the height of a typical lowercase letter such as *x*, *a*, or *n*, measured from the baseline to the top of the letter body (excluding ascenders).

Why other options are wrong:

- Option B: The height of capital letters from the baseline to their top is the *cap height*.
- Option C: The distance from the baseline to the bottom of descending letters is the *descender depth*.
- Option D: The total point size measured from ascender top to descender bottom is the *em size* (point size).

Final Answer: X-height measures the height of a lowercase letter body (e.g., 'x') from the baseline. $\Rightarrow$ A

Answer: (A) Go Back to Q45

Q46.

Solution

Concept — Wordmark (Logotype): Brand identity logos fall into several categories: *wordmarks* (text only), *lettermarks* (initials/monograms), *brandmarks* (abstract symbols only), *pictorial marks* (literal icons), and *combination marks* (symbol + text). A **wordmark** (logotype) uses the *company's full name* set in a distinctive, custom-designed typographic style as the entire logo. Examples: the Google logo, the Coca-Cola script, the FedEx logotype, and the Sony wordmark.

Step 1 — Match the definition: Option (B) correctly defines a wordmark as a logo consisting solely of the company's name in a distinctive, custom typographic treatment.

Why other options are wrong:

- Option A: A purely abstract graphic symbol without text is a *brandmark* or *abstract mark* (e.g., the Nike swoosh).
- Option C: Symbol + company name together constitute a *combination mark*.
- Option D: A logo built from initials only is a *lettermark* or *monogram* (e.g., the IBM, BBC, or CNN logos).

Final Answer: A wordmark is a logo consisting entirely of the company name in a custom typographic style. $\Rightarrow$ B

Answer: (B) Go Back to Q46

Q47.

Solution

Concept — Red in Safety Signage and Branding: Internationally standardised safety colour codes (ISO 3864, ANSI Z535) designate **red** as the colour for danger, prohibition, and stop. This is codified in stop signs, fire equipment, emergency stop buttons, fire extinguishers, and hazard warning labels worldwide. The association is deeply ingrained across cultures, which is why red is the universal emergency/danger colour.

Step 1 — Identify the correct colour: Option (C) — **Red** — is the universally designated colour for stop, danger, and fire safety.

Why other options are wrong:

- Option A (Orange): Orange is used for general *warning* (e.g., construction zones, biological hazard) — not the "stop/danger" code.
- Option B (Yellow): Yellow is the universal colour for *caution* and general hazard awareness (e.g., wet floor signs, railway crossings).
- Option D (Black): Black is associated with premium, luxury, authority, and typography, not safety danger codes.

Final Answer: Red is universally associated with stop, danger, and fire in branding and safety signage. $\Rightarrow$ C

Answer: (C) Go Back to Q47

Q48.

Solution

Concept — Typographic Measurement (Pica and Point): The traditional typographic measurement system, developed in the era of metal type, uses two basic units: the **point** (the smallest unit, approximately 1/72 of an inch) and the **pica** (a larger unit equal to *12 points*). In the PostScript/DTP standard: 1 pica = 12 points; 1 inch = 72 points = 6 picas.

Step 1 — Apply the conversion: 1 pica = **12 points**. Option (D) is correct.

Why other options are wrong:

- Option A (72 points): 72 points = 1 inch — that is the number of points in an *inch*, not in a pica.
- Option B (8 points): This is not a standard typographic conversion; there is no unit that equals 8 points in the pica/inch system.
- Option C (100 points): This is a metric-based round number with no correspondence to the typographic pica system.

Final Answer: 1 pica = 12 points (and 6 picas = 1 inch). $\Rightarrow$ D

Answer: (D) Go Back to Q48

Q49.

Solution

Concept — Widow in Typography: Typography distinguishes between two problematic short-line conditions: a **widow** and an **orphan**. A **widow** is a very short line (one word or a short phrase) at the *end of a paragraph* that appears alone at the *top of a new column or page*, visually disconnected from the rest of the paragraph above. An **orphan** is a single line from the *beginning* of a paragraph stranded at the *bottom* of a column. Widows are generally considered worse typographically.

Step 1 — Match the definition: Option (A) correctly defines a widow: a short concluding line at the *end* of a paragraph that appears alone at the *top* of a new page or column.

Why other options are wrong:

- Option B: A short line at the *beginning* of a paragraph stranded at the *bottom* of a column is an **orphan**, not a widow.
- Option C: An em-dash is a punctuation mark, not a typographic layout con-

dition.

- Option D: Letters descending below the baseline (g, j, p, q, y) are called **descenders**, not widows.

Final Answer: A widow is a short terminal line at the end of a paragraph appearing alone at the top of a new column or page. $\Rightarrow$ A

Answer: (A) Go Back to Q49

Q50.

Solution

Concept — The Baseline in Typography: The baseline is the foundational reference line in typography — the invisible horizontal line upon which the *base* of most letters rests. It is the reference from which all other vertical measurements in a typeface are calculated: the cap height (above baseline), the x-height (above baseline), the ascender height (above baseline), and the descender depth (below baseline).

Step 1 — Match the definition: Option (B) correctly defines the baseline as the invisible horizontal line on which most letters sit and from which all other vertical typographic measurements are made.

Why other options are wrong:

- Option A: The line at the top of capital letters (defining cap height) is called the *cap line* or *cap height line* — not the baseline.
- Option C: The line marking the average height of lowercase letters (x, n, a) is the *mean line* or *x-height line* — not the baseline.
- Option D: The lowest boundary of descenders (below the baseline) is the *descender line* — not the baseline itself.

Final Answer: The baseline is the invisible horizontal line on which most letters sit, serving as the foundation for all typographic measurements. $\Rightarrow$ B

Answer: (B) Go Back to Q50

Answer Key

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