

NID DAT Aptitude

Sample Paper – 5

Duration: 45 Minutes

Maximum Marks: 30

Instructions

- This paper contains **22 Multiple Choice Questions** (Single Correct Answer), modelled on the Aptitude (Part A) section of the **NID DAT** entrance examination.
- **Questions 1–14** carry **+1 mark** each; **Questions 15–22** carry **+2 marks** each.
- There is **no negative marking** for incorrect or unattempted answers.
- Only **one** option is correct per question.
- Syllabus: Visual Reasoning, Logical Reasoning, Design Awareness & GK, Design Theory & Principles.
- Use of mobile phones, calculators, or electronic gadgets is strictly prohibited.

SECTION A — Visual Reasoning (Q1–Q8) [1 Mark Each]

Q1. In the 3×3 matrix below, each row and each column contains a circle, a square, and a triangle exactly once. Which shape fills the missing cell (bottom-right, marked ?)?

○	□	△
□	△	○
△	○	?

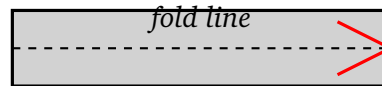
(A) Circle

(B) Square



- (C) Triangle
- (D) Diamond

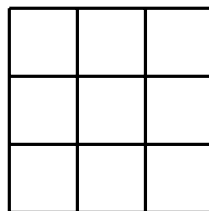
Q2. A rectangular strip of paper is folded in half along its length so the two long halves meet. A V-shaped notch is then cut symmetrically at the centre of the **folded edge** (cutting through both layers). When completely unfolded, what shape is the cut-out?



Folded strip — V-notch cut at fold edge (right end)

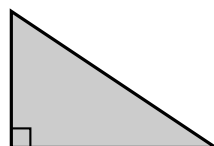
- (A) Right-angle triangle
- (B) Rectangle
- (C) **Diamond (Rhombus)**
- (D) Semicircle

Q3. How many squares of **ALL sizes** (1×1 , 2×2 , and 3×3) can be found in the 3×3 grid below?



- (A) 9
- (B) 12
- (C) 13
- (D) **14**

Q4. The right triangle below has its right angle at the **bottom-left**. After rotating it **90° clockwise**, where does the right angle appear?

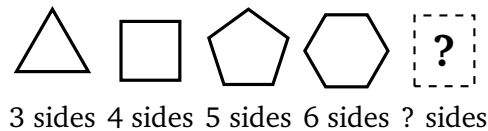


Original



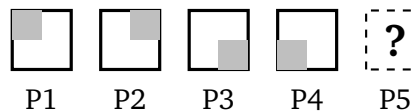
- (A) **Top-left**
- (B) Top-right
- (C) Bottom-right
- (D) The triangle looks the same after rotation

Q5. The series of polygons below follows the pattern: each next shape has one more side than the previous. What is the **next shape** after the hexagon?



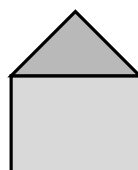
- (A) Pentagon (5 sides)
- (B) Hexagon (6 sides)
- (C) **Heptagon (7 sides)**
- (D) Octagon (8 sides)

Q6. In the figure series below, a shaded quarter rotates **90° clockwise** each step. Which panel comes **next** (Panel 5)?



- (A) Bottom-left quadrant shaded
- (B) **Top-left quadrant shaded**
- (C) Top-right quadrant shaded
- (D) Bottom-right quadrant shaded

Q7. The 'house' shape below (a rectangle with a triangular roof) is rotated **180°** about its centre. Which description correctly shows the result?



Original



- (A) **Triangle points downward, rectangle sits above it**
- (B) The shape is mirrored left-to-right but otherwise unchanged
- (C) The triangle still points upward but the shape is shifted
- (D) The shape appears identical to the original

Q8. On a standard die, opposite faces always add up to 7. The face showing **3** is facing you, and the face showing **1** is on top. What number is on the **bottom** face?

- (A) 2
- (B) 4
- (C) 5
- (D) 6

SECTION B — Logical Reasoning (Q9–Q13) [1 Mark Each]

Q9. Priya starts facing North. She walks **3 km North**, turns right and walks **4 km East**, then turns right again and walks **3 km South**. How far is she from her starting point, and in which direction?

- (A) 4 km North
- (B) 3 km West
- (C) **4 km East**
- (D) 4 km South

Q10. What is the next number in the series: 2, 5, 10, 17, 26, 37, ____?

- (A) **50**
- (B) 46
- (C) 48
- (D) 54



- Q11.** In a certain code, BRUSH is written as DTWUJ (each letter is replaced by the letter 2 positions ahead in the alphabet). Using the same rule, how is **PAINT** coded?
- (A) QBJOU
(B) **RCKPV**
(C) SCLOW
(D) OBMSU
- Q12.** Five people — A, B, C, D, and E — sit in a row. D is at the extreme left. E is at the extreme right. B sits between A and C. A sits to the left of B. Who sits in the **middle position**?
- (A) A
(B) C
(C) E
(D) **B**
- Q13.** One number in the series below does **NOT** follow the pattern. Find the **wrong number**. 3, 9, 18, 30, 43, 63
- (A) **43**
(B) 63
(C) 30
(D) 18

SECTION C — Design Awareness / GK (Q14–Q18) [Q14: 1 Mark | Q15–Q18: 2 Marks Each]

- Q14.** The iconic typeface **Helvetica** was created in which year?
- (A) 1937
(B) **1957**
(C) 1972



(D) 1984

Q15. The iconic **Eames Lounge Chair** (1956), designed by Charles and Ray Eames, is primarily constructed from which combination of materials?

- (A) Stainless steel and mesh
- (B) Aluminium and vinyl
- (C) Cane and rattan
- (D) **Molded plywood and leather**

Q16. The original **Apple** logo — the rainbow-coloured apple with a bite taken out — was designed in 1977 by:

- (A) Jonathan Ive
- (B) Carolyn Davidson
- (C) **Rob Janoff**
- (D) Paul Rand

Q17. The famous architectural maxim “*Form ever follows function*” was first stated by which American architect?

- (A) **Louis Sullivan**
- (B) Le Corbusier
- (C) Frank Lloyd Wright
- (D) Mies van der Rohe

Q18. The universally recognised **pictogram** system used at the **1972 Munich Olympic Games** — influencing sports icon design worldwide — was created by:

- (A) Paul Rand
- (B) **Otl Aicher**
- (C) Herb Lubalin
- (D) Saul Bass



SECTION D — Design Theory & Principles (Q19–Q22) [2 Marks Each]

- Q19. According to Gestalt psychology, the principle of '**Similarity**' states that:
- (A) Elements placed close together are perceived as a group
 - (B) **Elements that look alike tend to be grouped together**
 - (C) Our mind fills in gaps to perceive complete shapes
 - (D) The eye tends to follow continuous smooth lines
- Q20. Which of the following colour combinations represents an **analogous** colour scheme?
- (A) Red and green
 - (B) Orange and blue
 - (C) Yellow and violet
 - (D) **Blue, blue-green, and green**
- Q21. When one side of a composition carries more visual weight than the other, yet the overall design still appears harmoniously balanced, this type of balance is called:
- (A) Radial balance
 - (B) Symmetric (formal) balance
 - (C) **Asymmetric (informal) balance**
 - (D) Crystallographic balance
- Q22. In typography, the term '**x-height**' refers to:
- (A) **The height of lowercase letters, excluding ascenders and descenders**
 - (B) The width of the letter 'x' in a given typeface
 - (C) The height of capital (uppercase) letters
 - (D) The vertical space between two consecutive lines of text



Answer Key

Questions 1–10 (Q1–Q14 carry 1 mark each; Q15–Q22 carry 2 marks each):

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
B	C	D	A	C	B	A	D	C	A

Q11	Q12	Q13	Q14
B	D	A	B

Questions 15–22 (2 marks each):

Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22
D	C	A	B	B	D	C	A

Answer distribution: $A = 6$ $B = 6$ $C = 5$ $D = 5$



Detailed Solutions

Sol. 1.

Solution

Concept — Matrix Pattern (Latin Square): In a 3×3 arrangement where each row and each column must contain three distinct symbols exactly once, the missing cell is determined by elimination.

Step 1 — Check the bottom row: Row 3 already has $\triangle$ (col 1) and $\circ$ (col 2). The missing symbol for row 3 must be $\square$.

Step 2 — Verify via column: Column 3 already has $\triangle$ (row 1) and $\circ$ (row 2). The missing symbol for column 3 must also be $\square$. Both checks agree.

Why other options are wrong:

- Option A (Circle): Already appears in row 3 (col 2) and column 3 (row 2) — would violate the rule.
- Option C (Triangle): Already appears in row 3 (col 1) and column 3 (row 1) — would violate the rule.
- Option D (Diamond): Diamond is not one of the three symbols used in this matrix.

Final Answer: The missing shape is a Square $\Rightarrow$ **B**

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

Sol. 2.

Solution

Concept — Paper Folding and Cutting: When a strip is folded along its length and a notch is cut at the fold edge, the cut passes through two symmetric layers. Unfolding reveals a mirror-symmetric cut-out.

Step 1 — Analyse the fold: The strip is folded along the midline (long axis), placing the two halves exactly on top of each other. The fold edge runs along the long side.

Step 2 — Identify the cut: The V-shaped notch is cut at the fold edge. Each arm of the V cuts one triangular wedge through both layers simultaneously.

Step 3 — Unfold: When unfolded, the top half produces one triangular wedge, and the bottom half produces a mirror-image triangular wedge. The two wedges



meet at their bases along the former fold line, forming a **diamond (rhombus)** shape.

Why other options are wrong:

- Option A (Right-angle triangle): Would result from a straight cut, not a V-shaped one.
- Option B (Rectangle): A V-notch cannot produce a rectangular hole.
- Option D (Semicircle): Would require a circular arc cut, not a V-notch.

Final Answer: The unfolded cut-out is a Diamond (Rhombus) $\Rightarrow$ **C**

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

Sol. 3.

Solution

Concept — Counting Squares of All Sizes: In an $n \times n$ grid, count squares of size $k \times k$ using the formula $(n - k + 1)^2$ for each valid k .

Step 1 — Count 1×1 squares: $(3 - 1 + 1)^2 = 3^2 = 9$

Step 2 — Count 2×2 squares: $(3 - 2 + 1)^2 = 2^2 = 4$

Step 3 — Count 3×3 squares: $(3 - 3 + 1)^2 = 1^2 = 1$

Step 4 — Grand total: $9 + 4 + 1 = 14$

Why other options are wrong:

- Option A (9): Counts only the 1×1 squares, ignoring larger sizes.
- Option B (12): Undercounts; misses the 3×3 square and some 2×2 squares.
- Option C (13): Off by one; a common error when miscounting the 3×3 square.

Final Answer: $9 + 4 + 1 = 14 \Rightarrow$ **D**

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



Sol. 4.

Solution

Concept — Rotation of a Shape: A 90° clockwise rotation maps the point (x, y) to $(y, -x)$ relative to the centre of rotation. Visually, the entire figure turns right by a quarter-turn.

Step 1 — Identify vertices: The right angle is at the bottom-left. In a clockwise rotation, the bottom of the figure becomes the right side, the left becomes the bottom, the top becomes the left, and the right becomes the top.

Step 2 — Track the right-angle vertex: The bottom-left vertex moves to the **top-left** position after a 90° clockwise rotation.

Why other options are wrong:

- Option B (Top-right): The right-angle vertex would reach top-right only after a 90° counter-clockwise rotation.
- Option C (Bottom-right): Corresponds to a 180° rotation.
- Option D (Looks the same): A right triangle with unequal legs always changes appearance under rotation.

Final Answer: Right angle moves to the top-left $\Rightarrow$ **A**

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

Sol. 5.

Solution

Concept — Polygon Side Sequence: The series adds one side to each successive polygon: triangle (3) $\rightarrow$ square (4) $\rightarrow$ pentagon (5) $\rightarrow$ hexagon (6) $\rightarrow$?

Step 1 — Identify the pattern: Each term increases the number of sides by exactly 1.

Step 2 — Apply the rule: After hexagon (6 sides), the next polygon has $6 + 1 = 7$ sides, which is a **heptagon**.

Why other options are wrong:

- Option A (Pentagon, 5 sides): Fewer sides than the hexagon — goes backwards in the series.
- Option B (Hexagon, 6 sides): Repeats the current term rather than advancing.



- Option D (Octagon, 8 sides): Skips ahead by two steps instead of one.

Final Answer: Next shape is a Heptagon (7 sides) $\Rightarrow$ C

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

Sol. 6.

Solution

Concept — Rotational Figure Series: The shaded quarter moves 90° clockwise in each successive panel, completing one full 360° cycle across four panels.

Step 1 — Map the positions:

- Panel 1: Top-left shaded
- Panel 2: Top-right shaded (rotated 90° CW)
- Panel 3: Bottom-right shaded (rotated 90° CW again)
- Panel 4: Bottom-left shaded (rotated 90° CW again)

Step 2 — Determine Panel 5: Rotating 90° CW from bottom-left brings the shading back to **top-left**, completing the full rotation cycle.

Why other options are wrong:

- Option A (Bottom-left): This was Panel 4 — repeating a previous panel.
- Option C (Top-right): This was Panel 2 — going backwards in the cycle.
- Option D (Bottom-right): This was Panel 3 — not the next step from Panel 4.

Final Answer: Top-left quadrant shaded (cycle restarts) $\Rightarrow$ B

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

Sol. 7.

Solution

Concept — 180° Rotation: A half-turn (180°) flips a figure both horizontally and vertically. What was on top goes to the bottom, and vice versa.

Step 1 — Identify original orientation: The original “house” has a *triangular roof on top* and a *rectangular body below*.



Step 2 — Apply 180° rotation: After a half-turn, the top becomes the bottom and the bottom becomes the top. The triangle (formerly the roof on top) now points **downward** and is at the bottom. The rectangle is now above it.

Why other options are wrong:

- Option B (Left-right mirror): A 180° rotation is not the same as a left-right reflection; it also inverts top and bottom.
- Option C (Triangle still points upward): A half-turn always inverts the figure; the apex cannot remain pointing upward.
- Option D (Looks identical): A “house” shape is not point-symmetric, so it changes under 180° rotation.

Final Answer: Triangle points downward, rectangle above $\Rightarrow$ A

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

Sol. 8.

Solution

Concept — Standard Die Opposite Faces: On a standard die, each pair of opposite faces sums to 7: (1,6), (2,5), (3,4).

Step 1 — Identify the top face: The face showing 1 is on top.

Step 2 — Find the bottom face: The face opposite to 1 must sum to 7. Therefore, the bottom face shows $7 - 1 = 6$.

Step 3 — Verify consistency: The face showing 3 faces you, which is fine — 3’s opposite is 4, which is facing away. This is consistent with standard die rules.

Why other options are wrong:

- Option A (2): Opposite of 2 is 5, not 1. Face 2 would be a side face here.
- Option B (4): 4 is the face opposite to 3, so 4 faces away from you — not the bottom.
- Option C (5): 5 is opposite to 2 — it would be a side face here.

Final Answer: The bottom face shows 6 $\Rightarrow$ D

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



Sol. 9.

Solution

Concept — Direction Sense and Displacement: Track movements along the North-South axis and the East-West axis separately, then combine.

Step 1 — North-South movements: Priya walks 3 km North, then later 3 km South. Net vertical displacement = $3 - 3 = 0$ km.

Step 2 — East-West movements: Priya walks 4 km East. Net horizontal displacement = 4 km East.

Step 3 — Total displacement: $(0 \text{ N/S}) + (4 \text{ km East}) = 4 \text{ km East}$ from the starting point.

Why other options are wrong:

- Option A (4 km North): The northward and southward legs cancel each other out.
- Option B (3 km West): No westward movement was made at all.
- Option D (4 km South): There is no net southward displacement.

Final Answer: 4 km East from starting point $\Rightarrow$ **C**

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

Sol. 10.

Solution

Concept — Number Series with Increasing Differences: Identify the pattern in consecutive differences.

Step 1 — Compute differences:

$$2 \xrightarrow{+3} 5 \xrightarrow{+5} 10 \xrightarrow{+7} 17 \xrightarrow{+9} 26 \xrightarrow{+11} 37 \xrightarrow{+?} ?$$

Step 2 — Identify the pattern in differences: The differences are 3, 5, 7, 9, 11, ... — consecutive odd numbers, each increasing by 2.

Step 3 — Next difference: The next difference is $11 + 2 = 13$.

Step 4 — Next term: $37 + 13 = 50$.

Why other options are wrong:



- Option B (46): Would require a difference of 9, which was already used earlier.
- Option C (48): Would require a difference of 11, already used for the previous step.
- Option D (54): Would require a difference of 17, skipping the next value.

Final Answer: Next term is 50 $\Rightarrow$ **A**

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

Sol. 11.

Solution

Concept — Letter Shift Coding: Each letter is replaced by the letter 2 positions ahead in the alphabet ($A \rightarrow C$, $B \rightarrow D$, ..., $Y \rightarrow A$, $Z \rightarrow B$).

Step 1 — Verify with BRUSH $\rightarrow$ DTWUJ:

- $B(+2)=D$, $R(+2)=T$, $U(+2)=W$, $S(+2)=U$, $H(+2)=J \Rightarrow$ DTWUJ ✓

Step 2 — Apply to PAINT:

- $P(+2)=R$, $A(+2)=C$, $I(+2)=K$, $N(+2)=P$, $T(+2)=V \Rightarrow$ RCKPV

Why other options are wrong:

- Option A (QBJOU): Uses a +1 shift instead of +2.
- Option C (SCLOW): Uses a +3 shift instead of +2.
- Option D (OBMSU): Letters appear shifted in a random or reverse manner — does not follow the +2 rule.

Final Answer: PAINT coded as RCKPV $\Rightarrow$ **B**

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



Sol. 12.

Solution

Concept — Linear Seating Arrangement: Use the given constraints to fix each person's position in a row of five seats (positions 1 to 5 from left).

Step 1 — Place fixed positions: D is at the extreme left (position 1). E is at the extreme right (position 5).

Step 2 — Apply remaining constraints: B sits between A and C, with A to the left of B. So the order is A–B–C from left to right.

Step 3 — Fill the row: The remaining three positions (2, 3, 4) must be filled by A, B, C in the order A–B–C.

D (1) — A (2) — B (3) — C (4) — E (5)

Step 4 — Identify the middle: Position 3 (the middle of 5) is occupied by B.

Why other options are wrong:

- Option A (A): A is in position 2, not the middle.
- Option B (C): C is in position 4, not the middle.
- Option C (E): E is at the extreme right (position 5).

Final Answer: B is in the middle position $\Rightarrow$ D

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

Sol. 13.

Solution

Concept — Wrong Number in a Series: Identify the intended pattern, then spot the term that deviates from it.

Step 1 — Compute the differences:

$3 \xrightarrow{+6} 9 \xrightarrow{+9} 18 \xrightarrow{+12} 30 \xrightarrow{+?} 43 \xrightarrow{+?} 63$

Step 2 — Identify the intended pattern: The differences increase by 3 each time: +6, +9, +12, +15, +18, ...

Step 3 — Check each term:



- $30 + 15 = 45$, but the series gives 43. So **43 is wrong**; it should be 45.
- $45 + 18 = 63$ ✓ (if 43 were corrected to 45, the next term 63 would be correct).

Why other options are wrong:

- Option B (63): 63 is correct if 43 is replaced by 45: $45 + 18 = 63$.
- Option C (30): 30 is correct: $18 + 12 = 30$.
- Option D (18): 18 is correct: $9 + 9 = 18$.

Final Answer: The wrong number is 43 (should be 45) $\Rightarrow$ A

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

Sol. 14.

Solution

Concept — Design History (Typography): Helvetica is one of the most widely used typefaces in the world, celebrated for its clean, neutral sans-serif design.

Key Fact: Helvetica was designed by **Max Miedinger** and Eduard Hoffmann in **1957** at the Haas Type Foundry in Münchenbuchsee, Switzerland. It was originally named *Neue Haas Grotesk* before being renamed Helvetica (Latin for “Swiss”) in 1960.

Why other options are wrong:

- Option A (1937): Predates Helvetica; notable typefaces from this era include Gill Sans (1928) and Futura (1927).
- Option C (1972): This is the year of the 1972 Munich Olympics, where Helvetica was famously used in the signage system.
- Option D (1984): This is the year Apple’s Macintosh launched, which popularised digital typography — not the year Helvetica was created.

Final Answer: Helvetica was created in 1957 $\Rightarrow$ B

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



Sol. 15.

Solution

Concept — Iconic Furniture Design: The Eames Lounge Chair (model 670) is a landmark of mid-century modern design, combining ergonomic comfort with innovative material use.

Key Fact: Designed by Charles and Ray Eames and produced by Herman Miller from **1956**, the Eames Lounge Chair uses **molded plywood** (walnut, rosewood, or cherry veneer) shells for the seat, back, and arms, with **leather** upholstered cushions. The swivel base is cast aluminium.

Why other options are wrong:

- Option A (Stainless steel and mesh): Describes the Eames Wire Chair or chairs by other designers (e.g., Bertioia Diamond Chair).
- Option B (Aluminium and vinyl): Closer to the Eames Aluminium Group chairs, not the Lounge Chair.
- Option C (Cane and rattan): Not associated with Eames; describes traditional or colonial-era furniture.

Final Answer: Molded plywood and leather $\Rightarrow$ D

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

Sol. 16.

Solution

Concept — Graphic Design History (Corporate Identity): The Apple logo is one of the most recognisable brand marks in history, with a carefully documented origin.

Key Fact: **Rob Janoff** of the Regis McKenna advertising agency designed the iconic rainbow-striped apple with a bite taken out in **1977**, replacing the original ornate Newton logo. The “bite” is believed to aid scale recognition and prevent the logo from being mistaken for a cherry.

Why other options are wrong:

- Option A (Jonathan Ive): Ive is Apple’s legendary industrial designer (iMac, iPod, iPhone) — not the logo designer.
- Option B (Carolyn Davidson): Davidson designed the Nike swoosh (1971) — not the Apple logo.



- Option D (Paul Rand): Rand designed logos for IBM, UPS, and ABC — not Apple.

Final Answer: Rob Janoff designed the Apple logo in 1977 ⇒ C

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

Sol. 17.

Solution

Concept — Architectural Theory: “Form follows function” is the foundational principle of Modernist and Functionalist design, advocating that a building’s shape should arise from its intended purpose.

Key Fact: The maxim “*Form ever follows function*” was coined by American architect **Louis Sullivan** in his 1896 essay “*The Tall Office Building Artistically Considered*.” Sullivan is often called the “father of the skyscraper.”

Why other options are wrong:

- Option B (Le Corbusier): Le Corbusier popularised the phrase and adopted functionalism but did not originate this maxim.
- Option C (Frank Lloyd Wright): Wright was Sullivan’s protégé and championed organic architecture; he admired the maxim but did not coin it.
- Option D (Mies van der Rohe): Known for “Less is more” and the International Style; not the source of this maxim.

Final Answer: Louis Sullivan coined “Form ever follows function” ⇒ A

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

Sol. 18.

Solution

Concept — Design History (Sports & Pictograms): The 1972 Munich Olympics introduced a standardised system of sports pictograms that became the global template for wayfinding and sports iconography.

Key Fact: **Otl Aicher**, the legendary German graphic designer and co-founder of the Ulm School of Design (Hochschule für Gestaltung), created the Munich 1972 pictogram system. His minimalist, grid-based stick figures set the standard for all



subsequent Olympic and public pictogram systems worldwide.

Why other options are wrong:

- Option A (Paul Rand): Rand was the master of American corporate identity (IBM, UPS) and was not involved in the Munich Olympics.
- Option C (Herb Lubalin): Lubalin was a celebrated typographer (ITC Avant Garde) — not the Munich pictogram designer.
- Option D (Saul Bass): Bass created iconic film title sequences and corporate logos (AT&T, United Airlines) but was not involved in Olympic pictogram design.

Final Answer: Otl Aicher created the 1972 Munich Olympics pictograms ⇒ **B**

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

Sol. 19.

Solution

Concept — Gestalt Principles of Perception: Gestalt psychology identifies how the human brain organises visual information into meaningful patterns. The principle of Similarity states that visually similar elements are perceived as belonging together.

Key Distinction — Similarity vs. other principles:

- **Similarity:** Elements that share visual characteristics (shape, colour, size, texture) are grouped.
- **Proximity:** Elements placed close together are grouped — this describes option A, NOT Similarity.
- **Closure:** The mind fills in gaps to complete shapes — this describes option C.
- **Continuity:** The eye follows smooth, continuous paths — this describes option D.

Why other options are wrong:

- Option A: Describes **Proximity**, not Similarity.
- Option C: Describes **Closure**.
- Option D: Describes **Continuity (Good Continuation)**.

Final Answer: Elements that look alike are grouped — Similarity ⇒ **B**



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

Sol. 20.

Solution

Concept — Colour Theory (Analogous Colours): An analogous colour scheme uses colours that are adjacent to each other on the colour wheel, typically spanning two to four segments. They share a common hue and create harmonious, cohesive designs.

Step 1 — Identify the colour wheel neighbours: On the standard colour wheel, the sequence is: ... Red, Red-Orange, Orange, Yellow-Orange, Yellow, Yellow-Green, Green, Blue-Green, Blue, Blue-Violet, Violet, Red-Violet, Red ...

Step 2 — Evaluate option D: Blue, blue-green, and green are *adjacent* on the wheel — a perfect analogous scheme.

Why other options are wrong:

- Option A (Red & green): Opposite on the colour wheel — this is a **complementary** scheme.
- Option B (Orange & blue): Opposite on the colour wheel — also **complementary**.
- Option C (Yellow & violet): Opposite on the colour wheel — also **complementary**.

Final Answer: Blue, blue-green, and green form an analogous scheme ⇒ D

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

Sol. 21.

Solution

Concept — Types of Visual Balance in Design: Balance in design refers to the distribution of visual weight across a composition. The three primary types are symmetric, asymmetric, and radial balance.

Key Definitions:

- **Symmetric (Formal) Balance:** Both sides of the composition are mirror images — equal weight on both sides.



- **Asymmetric (Informal) Balance:** Different elements on each side, yet the overall composition feels balanced through careful use of size, colour, contrast, and position.
- **Radial Balance:** Elements radiate outward from a central point.
- **Crystallographic Balance:** Uniform repetition of elements throughout the composition (all-over pattern).

Why other options are wrong:

- Option A (Radial): Radial balance revolves around a centre point — not side-to-side inequality.
- Option B (Symmetric): By definition, symmetric balance means both sides are equal/mirrored — the opposite of what is described.
- Option D (Crystallographic): Refers to uniform distribution across the entire surface.

Final Answer: Unequal yet harmonious balance = Asymmetric balance ⇒ C

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

Sol. 22.

Solution

Concept — Typography Terminology: Precise typographic vocabulary is essential for designers. The x-height is a fundamental metric that describes the relative “visual size” of a typeface.

Key Fact: The **x-height** is the height of the lowercase letter ‘x’ (and, by extension, most other lowercase letters without ascenders or descenders) measured from the baseline. A large x-height makes text appear bigger and more legible at small sizes.

Related typographic terms:

- **Cap height:** The height of uppercase/capital letters from baseline to top.
- **Leading (line spacing):** The vertical distance between successive baselines of text.
- **Set width:** The horizontal width of a character.

Why other options are wrong:



- Option B: The width of the letter 'x' is called the **set width** or character width — not x-height.
- Option C: The height of capital letters is the **cap height**, not x-height.
- Option D: Vertical space between lines is **leading** (or line spacing) — not x-height.

Final Answer: x-height = height of lowercase letters excl. ascenders/descenders

⇒

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