NATA 2024 – CAAD

VISUAL REASONING

LOGICAL DERIVATION

NUMERICAL ABILITY

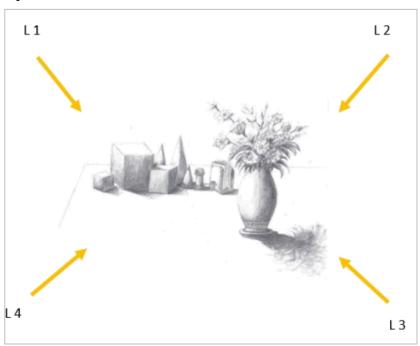
GENERAL KNOWLEDGE, ARCHITECTURE & DESIGN

DESIGN THINKING

LANGUAGE INTERPRETATION

DESIGN SENSITIVITY

Observe the sketch and identify the location of light source which creates the shadow for these objects



Source: CAAD- DRL

A. L1

B. L2

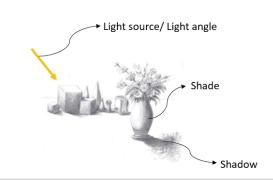
Answer key:

A. L1 -Source of the light is positioned on the top-Left side to the Object.

C. L3

D. L4





Suggested Reading: Basics of light and shadow

" For a swift review of the subject, kindly consult the study materials available on the website"

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Which elements of design are used in this famous painting of Indian Artist S H Raza.



https://www.artisera.com/collections/s-h-raza

A. Lines

B. Colours

C. Shapes

D. All of the above

Answer Key:

Colours)

D. All of the above (Lines, Shapes,

Theory:

Elements in Architecture are

- Point
- Lines
- Shape
- Space
- Colour Form
- Texture

Suggested Reading: Elements of design

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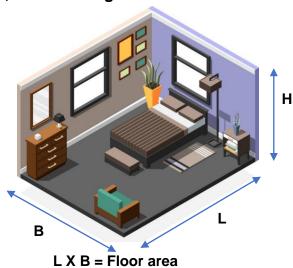


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The cost of painting the walls of a room at the rate of Rs. 1.35 per square metre is Rs. 346.20 and the cost of matting die floor at the rate of Rs. 0.85 perm² is Rs. 91.80. If the length of the room is 12 m, then the height of the room is:



A. 6M	B. 12M		
C. 1.2M	D. 13.27M		
Answer key: A. 6M	Theory: Let length, breadth and height of the room be I, b and h, respectively. Then, area of four walls of the room $= 2 (l + b) h = 340.20/1.35 = 252m2$ $\Rightarrow (l + b) h = 126 \qquad (i)$ And $l \times b = 91.8/0.85 = 108$ $12 \times b = 108 (\because l = 12m)$ $\Rightarrow b = 9 m$ Using (i), we get, $h = 126/21 = 6m$		

Suggested Reading: Mensuration

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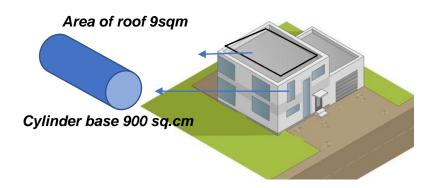


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The water from a roof 9 sq. metres flows into a cylinder container of 900 cm² base. To what height will the water rise in cylinder if there is a rainfall of 0.1 mm?



A. 1CM	B. 0.1M		
C. 0.11CM	D. 10CM		
Answer key: A. 1CM	Theory: Let height will be (h) cm. Volume of water in roof = Volume of water in cylinder Volume of 1cubic meter is 1000L So, $\Rightarrow (9 \times 10000 \times 0.1)/(900 \times 10) = h$ $\therefore h = 1 \text{ cm}$		

Suggested Reading: Mensuration

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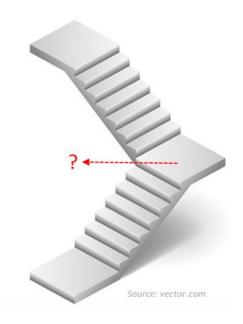


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is the horizontal platform provided between two flights of a Stairs.



A. Handrail	B. Tread
C. Landing	D. Rise
Answer key:	Theory:
C. Landing	A landing facilitates change of direction and provides an opportunity for taking rest during the use of a stair. Stair landing should be provided at the top and bottom, equal to the width of stairs.

Suggested Reading: Basics of building construction/Components
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This Catalan masterpiece, designed by Antoni Gaudí, features undulating facades, mosaic decorations, and stained glass windows, reflecting the artist's boundless creativity and modernist ideals.



Source: Sagrada Familia | Description, History, Design, Church, & Facts | Britannica

A. Sagrada Familia	C. Park Güell
B. Casa Batlló	D. Palau de la Música Catalana
Answer key: A) Sagrada Familia	Theory: Explanation: The description of undulating forms, mosaics, and stained glass distinctly references the Sagrada Familia, Gaudí's unfinished basilica and renowned architectural marvel.

Suggested Reading: History Of Architecture
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How does design thinking Promote User-centered Design in Architecture?

- A. By ignoring user feedback
- B. By prioritizing aesthetics over functionality
- C. By involving end-users throughout the design process
- D. By relying solely on architects' expertise

Answer key:

C. By involving end-users throughout the design process

Theory:

Design thinking promotes user-centered design in architecture by involving end-users throughout the design process to understand their needs and preferences..

Suggested Reading: Design Thinking

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Select the appropriate word in each sentence below. The answer is the set of options in all the four sentences

- 1. The Parthenon, along with Cheops's pyramid, Wren's churches and Mansard's palaces —ranks as an architectural **archetype(A)/prototype (B).**
- 2. The builders of the Parthenon were **steeped (A)/steered (B)** by tradition, yet free to experiment.
- 3. They worked **to (A)/for (B)** extreme precision, yet the final result was anything but rigid.
- 4. Knowing that long horizontal lines appear to sag, even though they are absolutely straight, horizontal elements were deliberately curved and the vertical columns "fattened" in the middle to **compensate (A)/accommodate (B)** for the vagaries of the human eye.

C. ABAA
D. BBBA

Answer key:

C. ABAA

Theory:

Sentence 1- The Parthenon, along with Cheops's pyramid, Wren's churches and Mansard's palaces — ranks as an architectural archetype (A)/prototype (B).

Archetype and prototype are words that are often confused. An archetype refers to an ideal or theoretically perfect example that existing things or people strive to copy but can never duplicate. A prototype, on the other hand, is an early, usually unrefined version of something that later versions reflect but may depart from.

The correct choice of word for this sentence about the Parthenon is archetype.

Sentence 2- The builders of the Parthenon were steeped (A)/steered (B) by tradition, yet free to experiment. The word steeped means drenched or soaked. However, the verb steeped is usually followed by "in" and not "by" in a sentence. The builders of the Parthenon were steeped in tradition makes sense.

However, we have the word "by" in the sentence following the verb, so the correct word to be used here is steered (guided) by tradition.

Sentence 3- They worked to (A)/for (B) extreme precision, yet the final result was anything but rigid. The correct word here is to, not for.

Sentence 4- Knowing that long horizontal lines appear to sag, even though they are absolutely straight, horizontal elements were deliberately curved and the vertical columns "fattened"? in the middle to compensate (A)/accommodate (B) for the vagaries of the human eye.

Compensate makes better sense than accommodate in this sentence. To compensate for the vagaries of the human eye, structural adjustments were made to the Parthenon. Accommodate would have been followed directly by "the vagaries of the human eye"? without the need for a "for"? in the sentence.

Suggested Reading: Meanings

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One of the statements below contains a word used incorrectly. Choose the option which has the incorrect or inappropriate usage of the word.

- Last week we learnt about the right way to greet our customers.
- "Get it write the first time" is an often-heard management slogan. (b)
- In India, driving on the Right side of the road is wrong.
- The rite of afternoon tea is described in many of Enid Blyton's books (d)

A. a	C. c
B. b	D. d
Answer key: Theory:	

We are looking at "right", "write" and "rite" in this question. "Right" can denote direction or being correct. "Write" is the verb. "Rite" is any regular ritual or ceremony that happens. All these make options A, C and D error-free. Hence, the right answer choice is option B. It should have been "Get it right the first time". The question is "One of the statements below contains a word used incorrectly. Choose the option which has the incorrect or inappropriate usage of the word."

Hence, the answer is "Get it write the first time" is an often-heard management slogan.

Suggested Reading: Appropriate word usage - Homophones " For a swift review of the subject, kindly consult the study materials available on the website"

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B. b

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The Oculus at One World Trade Center transportation hub designed by Santiago Calatrava evokes imagery of

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л.	Fis		vii	-

B. Ship Sails

Answer key:

D. Bird Wings

C. Boomerang

D. Bird Wings

Theory:

Bird Wings:

The iconic steel structure of Oculus rises above the ground and appears to resemble a bird about to take flight. It unifies all the everyday metro stops within the site of the reconstructed World Trade Center master plan.

Suggested Reading: Principles of design

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