NATA 2024 - CAAD BIT

**VISUAL REASONING** 

**LOGICAL DERIVATION** 

**NUMERICAL ABILITY** 

**GENERAL KNOWLEDGE, ARCHITECTURE & DESIGN** 

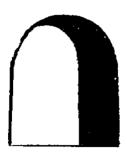
**DESIGN THINKING** 

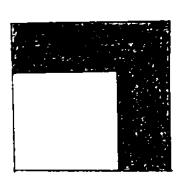
LANGUAGE INTERPRETATION

**DESIGN SENSITIVITY** 

Identify the shadow which is created by a niche (a shallow recess in the wall ).

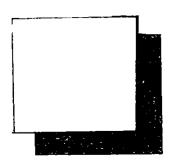
A.





В.





A. Options B And D

C. Options A and D

B. Options A and C

D. Options C and D

Answer key:

Theory:

B. Options A & C

Shadow of a recessed plane

When viewed from front the shadow will be cast within the object line and the shadow will be on the recessed surface

Suggested Reading: Basics of light and shadow

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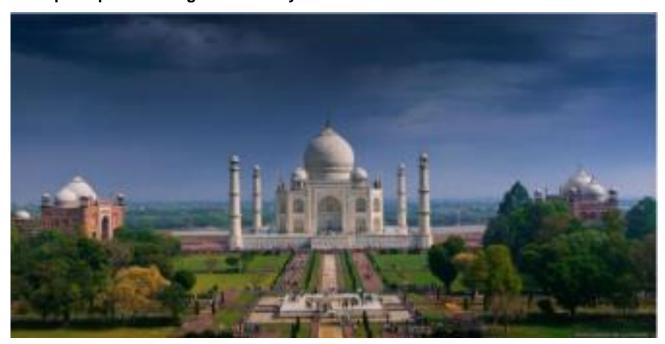
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Which principles of design are visually seen in this famous architectural wonder?



A. Focus	C. Axis			
B. Symmetry	D. All of the above			
Answer Key:  D. All of the above	Theory:  SYMMETRY: The balanced distribution and arrangement of equivalent forms an on opposite sides of dividing plane or about a centre axis  AXIS: A Line established by two point in space about which form and spaces can be arranged in symmetrical and balanced manner  FOCAL POINTS: Are areas of interest, emphasis within a composition that capture and hold the viewer's attention.			

Suggested Reading: Principles of design

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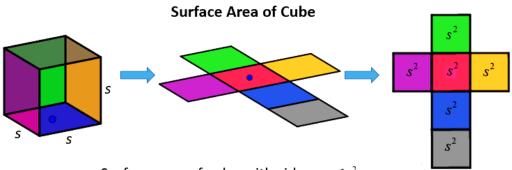


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DESIGN THINKING LANGUAGE INTERPRETATION DESIGN SENSITIVITY

The cost of the paint is Rs.36.50 per kg. If 1 kg of paint covers 16 square feet, how much will it cost to paint outside of a cube having 8 feet each side?



Surface area of cube with side,  $s = 6s^2$ 

A. 692Rs	B. 876Rs			
C. 786Rs	D. 940Rs			
Answer key:  B. Rs.876	Theory:  Given:  Cost of paint = ₹ 36.50/ kg 1 kg paint covers 16 ft^2.  Solution: Side of the cubic wall = 8 ft  Surface area of the cube = $(6 \times 8^2)$ sq. ft = 384 sq. ft.  Quantity of paint required = $(384/16)$ kg = $24$ kg  ∴Cost of painting = Rs.36.50 × 24 = Rs.876			

**Suggested Reading: Mensuration** 

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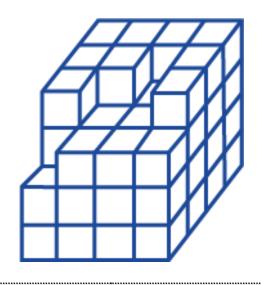
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How many cubes are there in the given figure?



A. 56 B. 55

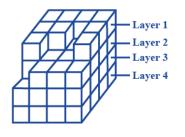
C. 54 D. 52

Answer key: Theory:

Number of cubes in the Layer 1 =9
Number of cubes in the Layer 2 =15
Number of cubes in the Layer 3 =16
Number of cubes in the Layer 4 =16

:: Total number of cubes = 9+15+16+16 = 56

A. 56



Suggested Reading: Geometry

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DESIGN THINKING LANGUAGE INTERPRETATION DESIGN SENSITIVITY

Assertion A: Teak wood is used for making furniture and decorative woodwork.

Reason R: Teak wood can be easily carved, polished to an excellent finish.

- 1. Both A and R are true and R is the correct explanation of A
- 2. Both A and R are true but R is not the correct explanation of A
- 3. A is true but R is false
- 4. A is false but R is true

A. Option - 1	B. Option - 2		
C. Option - 3	D. Option - 4		
Answer key:	Theory:  PROPERTIES & USES OF TEAK WOOD:		
A. Option - 1	Teak is a hardwood, but it is softer than most domestic hardwoods. Teak's softness contributes to its workability. It is highly durable and water resistant. It is generally fine to coarsely grained, even texture, medium luster and an oily feel. Because of these properties it is used for boat		

Suggested Reading: Basics of building construction/Components
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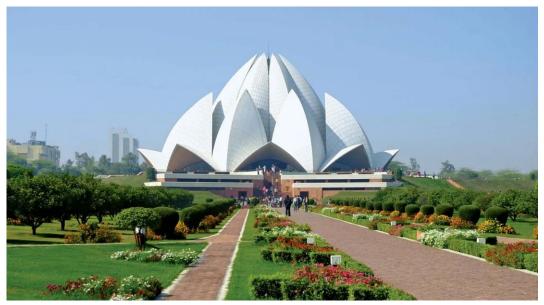
doors, windows etc.



building, veneer, furniture, carvings, flooring,

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DESIGN TI	HINKING	LANGUAGE INTERPRETATION	DESIGN SI	ENSITIVITY

This magnificent temple complex in Delhi, dedicated to the lotus flower and designed by an Iranian architect, features nine pools radiating from a central lotus-shaped shrine, symbolizing purity and spiritual ascension..



A. Qutub Minar	C. Lotus Temple
B. Humayun's Tomb	D. Red Fort
Answer key:  C) Lotus Temple	Theory:  Explanation: The description of lotus flower, pool layout, and spiritual symbolism clearly identifies the Lotus Temple, a modern architectural marvel resembling a blooming lotus and a prime example of Baha'i faith architecture.

Suggested Reading: History Of Architecture

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DESIGN THINKING LANGUAGE INTERPRETATION DESIGN SENSITIVITY

How does design thinking differ from traditional problem-solving approaches in architecture?

- A. It disregards user feedback
- B. It focuses only on aesthetics
- C. It emphasizes empathy and understanding of user needs
- D. It relies solely on individual creativity for solutions

Answer key:

C. It emphasizes empathy and understanding of user needs

### Theory:

"Design thinking differs from traditional problem-solving approaches by emphasizing empathy and understanding of user needs throughout the design process.

Suggested Reading: Design Thinking

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DESIGN T	HINKING	LANGUAGE INTERPRETATION	DESIGN SENSITIVITY

### Read the passage and determine the correct answer:

- Choose **True** if the statement has to be true according to the passage.
- · Choose False if statement has to be false according to the passage.
- Choose Cannot say if you cannot determine whether the statement is true or false without further information.
- · REMEMBER: you have to base your answers only on the information given in the text

**Passage:** Companies wishing to increase their growing pace occasionally use the method of franchising which provides a new owner with the permit to use their business identity and in return to purchase products exclusively from the company. However most companies will aim to minimise the use of this method and often prefer the expansion of the companies' own branches. Companies who have previously used franchising learnt the essential need to monitor the business operation of the franchised branch.

Difficulties arise from franchisees and companies disagreeing on business policies such as customer care, service delivery efficiency and quality of human interaction. Inadequate attention to the monitoring of franchisees on the part of the companies is typically the cause of subsequent problems.

Service delivery efficiency has reduced companies' will to franchise.

A. True	C. Cannot say			
B. False				
Answer key:	Theory:			
C. Cannot say	The text explains that service delivery efficiency is a cause for disagreement between franchisees and companies, but it doesn't mention whether this is why companies are reluctant to franchise.			

Suggested Reading: Critical Reasoning

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For this question, you must identify the relationship that exists between each pair of words and determine which of the additional four word pairs maintains the same logical relationship.

Always pay attention to the **order** of the words in each pair. If more than one pair seems to apply, they may be in a different order than the original pair of words.

All Germans speak Italian.
All Italian speakers ride bicycles.
Which of the following statements must be true?

A. All Italians speak German.	C. All Germans ride bicycles.
B. All bicycle riders are German.	D. Some of the Italians riding bicycles are Germans.
Answer key:	Theory:
C. All Germans ride bicycles	Based on the illustration, it's clear that all Germans are Italian speakers and that all Italian speakers are bicycle riders. Therefore, all Germans are bicycle riders.  Bicycle Riders Italian Speakers Germans

Suggested Reading: Syllogisms

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What is the colour of FedEx logo?



A. Blue and Yellow	C.	Purple and Orange

### B. Red and Yellow D. Purple and Yellow

Answer key: Theory:

**Purple and orange are the predominant colors.** While purple represents the brand's legacy and trust, orange symbolizes energy, enthusiasm, and vibrancy.

C. Purple and Orange



Suggested Reading: Logo Design

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