

# National Testing Agency

**Question Paper Name :** B Arch 30th Jan 2025 Shift 2  
**Subject Name :** B. Arch  
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**Total Marks :** 400  
**Display Marks:** Yes

## B. Arch

**Group Number :** 1  
**Group Id :** 65644521  
**Group Maximum Duration :** 0  
**Group Minimum Duration :** 180  
**Show Attended Group? :** No  
**Edit Attended Group? :** No  
**Break time :** 0  
**Group Marks :** 400

## Mathematics Section A

**Section Id :** 656445117  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional :** Mandatory  
**Number of Questions :** 20  
**Number of Questions to be attempted :** 20  
**Section Marks :** 80  
**Maximum Instruction Time :** 0  
**Sub-Section Number :** 1  
**Sub-Section Id :** 656445117  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Id : 6564451580 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Let  $A = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$ . Let  $R$  be a relation on  $A$  defined by  $xRy$  if and only if  $2x=3y$ . Let  $l$  and  $m$  be the minimum number of elements required to be added in  $R$  to make it reflexive and symmetric relations, respectively. Then  $l + m$  is equal to :

**Options :**

6564455491. 13

6564455492. 14

6564455493. 15

6564455494. 16

**Question Number : 1 Question Id : 6564451580 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

माना  $A = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$ । माना  $A$  पर एक संबंध  $R$ ,  $xRy$  यदि और केवल यदि  $2x=3y$  है, द्वारा परिभाषित है। माना  $l$  तथा  $m$ ,  $R$  में जोड़ने के लिए आवश्यक न्यूनतम अवयवों की संख्या है, ताकि  $R$  क्रमशः स्वतुल्य तथा सममित संबंध बन जाएँ, तो  $l+m$  बराबर है :

**Options :**

6564455491. 13

6564455492. 14

6564455493. 15

6564455494. 16

**Question Number : 2 Question Id : 6564451581 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If the domain of the function  $f(x) = \frac{1}{\log_{10}(1-2x)} + \sqrt{2x+1}$  is  $[\alpha, \beta] - \{0\}$ , then  $20(\alpha^2 + \beta^2)$  equals :

**Options :**

6564455495. 8

6564455496. 10

6564455497. 12

6564455498. 13

**Question Number : 2 Question Id : 6564451581 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

यदि फलन  $f(x) = \frac{1}{\log_{10}(1-2x)} + \sqrt{2x+1}$  का प्रांत  $[\alpha, \beta] - \{0\}$  है, तो  $20(\alpha^2 + \beta^2)$  बराबर है :

**Options :**

6564455495. 8

6564455496. 10

6564455497. 12

6564455498. 13

**Question Number : 3 Question Id : 6564451582 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If  $\sqrt{-24 - 10i} = \alpha + i\beta$ ,  $i = \sqrt{-1}$ ,  $\alpha, \beta \in \mathbf{R}$ , then  $\alpha^2 + \beta^2$  is equal to :

**Options :**

6564455499. 22

6564455500. 24

6564455501. 26

6564455502. 29

**Question Number : 3 Question Id : 6564451582 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

यदि  $\sqrt{-24 - 10i} = \alpha + i\beta$ ,  $i = \sqrt{-1}$ ,  $\alpha, \beta \in \mathbf{R}$  हैं, तो  $\alpha^2 + \beta^2$  बराबर है :

**Options :**

6564455499. 22

6564455500. 24

6564455501. 26

6564455502. 29

**Question Number : 4 Question Id : 6564451583 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The product of all real solutions of the equation  $(3+2\sqrt{2})^{x^4-15} + (3-2\sqrt{2})^{x^4-15} = 6$  is :

**Options :**

6564455503.  $4\sqrt{14}$

6564455504. 14

6564455505.  $2\sqrt{14}$

6564455506. 18

**Question Number : 4 Question Id : 6564451583 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

समीकरण  $(3+2\sqrt{2})^{x^4-15} + (3-2\sqrt{2})^{x^4-15} = 6$  के सभी वास्तविक हलों का गुणनफल है :

**Options :**

6564455503.  $4\sqrt{14}$

6564455504. 14

6564455505.  $2\sqrt{14}$

6564455506. 18

**Question Number : 5 Question Id : 6564451584 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

If the system of equations  $x + 2y + 3az = 4$ ,  $2x + 3y + 4z = 1$ ,  $3x + 7y + 2z = b$  has infinitely many solutions, then  $b - 40a$  is equals to :

**Options :**

6564455507. 4

6564455508. 1

6564455509. 2

6564455510. 3

**Question Number : 5 Question Id : 6564451584 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

यदि समीकरण निकाय  $x + 2y + 3az = 4$ ,  $2x + 3y + 4z = 1$ ,  $3x + 7y + 2z = b$  के अनंत हल हैं, तो  $b - 40a$  बराबर है :

**Options :**

6564455507. 4

6564455508. 1

6564455509. 2

6564455510. 3

**Question Number : 6 Question Id : 6564451585 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

Let  $a, b, c$  be positive real numbers such that  $a, 7, c, b$  are in an arithmetic progression. If  $ab = 3(a + b)$ , then the largest value of  $b$  is :

**Options :**

6564455511.  $9 - \sqrt{2}$

6564455512.  $9 - 3\sqrt{2}$

6564455513.  $9 + 3\sqrt{2}$

6564455514.  $9 + 6\sqrt{2}$

**Question Number : 6 Question Id : 6564451585 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

माना  $a, b, c$  धनात्मक वास्तविक संख्याएँ इस प्रकार हैं कि  $a, 7, c, b$  एक समांतर श्रेणी में हैं। यदि  $ab = 3(a + b)$ , तो  $b$  का अधिकतम मान है :

**Options :**

6564455511.  $9 - \sqrt{2}$

6564455512.  $9 - 3\sqrt{2}$

6564455513.  $9 + 3\sqrt{2}$

6564455514.  $9 + 6\sqrt{2}$

**Question Number : 7 Question Id : 6564451586 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

If there are 19 and 16 points on two distinct parallel lines  $L_1$  and  $L_2$ , respectively, then the total number of triangles that can be formed using these points as vertices, is :

**Options :**

6564455515. 4983

6564455516. 4997

6564455517. 5016

6564455518. 5049

**Question Number : 7 Question Id : 6564451586 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

यदि दो भिन्न समांतर रेखाओं  $L_1$  तथा  $L_2$  पर क्रमशः 19 तथा 16 बिन्दु हैं, तो इन बिन्दुओं को शीर्ष लेकर बनने वाले त्रिभुजों की कुल संख्या है :

**Options :**

6564455515. 4983

6564455516. 4997

6564455517. 5016

6564455518. 5049

**Question Number : 8 Question Id : 6564451587 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If the mean of the frequency distribution

Variable ( $x_i$ )	1	3	4	7	9	Total
Frequency ( $f_i$ )	1	a	b	3	1	10

is 5, then its variance is :

**Options :**

6564455519. 5

6564455520. 5.1

6564455521. 5.2

6564455522. 5.3

**Question Number : 8 Question Id : 6564451587 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

यदि बारंबारता बंटन

चर ( $x_i$ )	1	3	4	7	9	योग
बारंबारता ( $f_i$ )	1	a	b	3	1	10

का माध्य 5 है, तो इसका प्रसरण है :

Options :

6564455519. 5

6564455520. 5.1

6564455521. 5.2

6564455522. 5.3

Question Number : 9 Question Id : 6564451588 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a question paper containing 10 questions, A can solve 70% of the questions and B can solve 50% of the questions. The probability, that none of A and B will be able to solve the question, selected at random from the paper, is :

Options :

6564455523.  $\frac{3}{10}$

6564455524.  $\frac{3}{20}$

6564455525.  $\frac{1}{5}$

6564455526.  $\frac{2}{5}$

Question Number : 9 Question Id : 6564451588 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

10 प्रश्नों के एक प्रश्नपत्र में, A 70% प्रश्न हल कर सकता है तथा B 50% प्रश्न हल कर सकता है। प्रश्नपत्र में से यादृच्छया चुने गये एक प्रश्न को A तथा B में से किसी के भी हल न कर सकने की प्रायिकता है :

Options :

6564455523.  $\frac{3}{10}$

6564455524.  $\frac{3}{20}$

6564455525.  $\frac{1}{5}$

6564455526.  $\frac{2}{5}$

**Question Number : 10 Question Id : 6564451589 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Let the line  $y = x + 3$  intersect the parabola  $x^2 = 4y$  at the points A and B. If F is the focus of the parabola, then the area of triangle AFB is :

**Options :**

6564455527. 4

6564455528. 6

6564455529. 8

6564455530. 12

**Question Number : 10 Question Id : 6564451589 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

माना रेखा  $y = x + 3$  परवलय  $x^2 = 4y$  को बिन्दुओं A तथा B पर प्रतिच्छेद करती है। यदि F परवलय की नाभि है, तो त्रिभुज AFB का क्षेत्रफल है :

**Options :**

6564455527. 4

6564455528. 6

6564455529. 8

6564455530. 12

**Question Number : 11 Question Id : 6564451590 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Let A  $(3, 3\sqrt{3})$ , B  $(6, 0)$  and C  $(\alpha, \beta)$  be the vertices of an equilateral triangle. Let its incentre be D, and P and Q be the feet of perpendiculars drawn from the point D on AC and BC, respectively. Then the area of quadrilateral CPDQ is :

Options :

6564455531.  $2\sqrt{3}$

6564455532.  $3\sqrt{3}$

6564455533.  $6\sqrt{3}$

6564455534.  $8\sqrt{3}$

Question Number : 11 Question Id : 6564451590 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

माना A  $(3, 3\sqrt{3})$ , B  $(6, 0)$  तथा C  $(\alpha, \beta)$  एक समबाहु त्रिभुज के शीर्ष हैं। माना इसका अंतःकेन्द्र D है, तथा P तथा Q, बिन्दु D से क्रमशः AC तथा BC पर खींचे गए लंबों के पाद हैं। तो चतुर्भुज CPDQ का क्षेत्रफल है :

Options :

6564455531.  $2\sqrt{3}$

6564455532.  $3\sqrt{3}$

6564455533.  $6\sqrt{3}$

6564455534.  $8\sqrt{3}$

Question Number : 12 Question Id : 6564451591 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Let E :  $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ ,  $a > b$  be an ellipse of eccentricity  $\frac{1}{\sqrt{3}}$ . If the distance between the foci of E is 4,

then the length of its latus rectum is :

Options :

6564455535.  $\frac{4\sqrt{3}}{3}$

6564455536.  $\frac{6\sqrt{3}}{3}$

6564455537.  $\frac{8\sqrt{3}}{3}$

6564455538.  $\frac{10\sqrt{3}}{3}$

**Question Number : 12 Question Id : 6564451591 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

माना E :  $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ ,  $a > b$  उत्केंद्रता  $\frac{1}{\sqrt{3}}$  का एक दीर्घवृत्त है। यदि E की नाभियों के बीच की दूरी 4 है, तो इसके

नाभिलंब जीवा की लम्बाई है :

**Options :**

6564455535.  $\frac{4\sqrt{3}}{3}$

6564455536.  $\frac{6\sqrt{3}}{3}$

6564455537.  $\frac{8\sqrt{3}}{3}$

6564455538.  $\frac{10\sqrt{3}}{3}$

**Question Number : 13 Question Id : 6564451592 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Let a circle of radius 3 pass through the origin O and meet the coordinate axes at the points A and B. Then the locus of the centroid of the triangle AOB is :

**Options :**

6564455539.  $x^2 + y^2 = 1$

6564455540.  $x^2 + y^2 = 4$

6564455541.  $3x^2 + 3y^2 = 4$

6564455542.  $x^2 + y^2 = 12$

Question Number : 13 Question Id : 6564451592 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1

माना कि त्रिज्या 3 का एक वृत्त मूलबिन्दु O से होकर जाता है तथा निर्देशांक अक्षों को बिन्दुओं A तथा B पर मिलता है। तो त्रिभुज AOB के केन्द्रक का बिन्दुपथ है :

Options :

6564455539.  $x^2 + y^2 = 1$

6564455540.  $x^2 + y^2 = 4$

6564455541.  $3x^2 + 3y^2 = 4$

6564455542.  $x^2 + y^2 = 12$

Question Number : 14 Question Id : 6564451593 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1

The length of the perpendicular from the point (1, 2, 3) on the line  $\frac{x-6}{3} = \frac{y-7}{2} = \frac{z-7}{-2}$  is :

Options :

6564455543. 5

6564455544. 6

6564455545. 4

6564455546. 7

Question Number : 14 Question Id : 6564451593 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1

बिन्दु (1, 2, 3) से रेखा  $\frac{x-6}{3} = \frac{y-7}{2} = \frac{z-7}{-2}$  पर लंब की लंबाई है :

Options :

6564455543. 5

6564455544. 6

6564455545. 4

6564455546. 7

Question Number : 15 Question Id : 6564451594 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Let  $L_1$  be the line that passes through the point  $(1, 2, -4)$  and be perpendicular to the two lines

$$\frac{x-8}{3} = \frac{y+19}{-16} = \frac{z-10}{7} \text{ and } \frac{x-15}{3} = \frac{y-29}{8} = \frac{z-5}{-5}. \text{ If } L_2 \text{ is the line } \vec{r} = 7\hat{i} - 6\hat{k} + \lambda(\hat{i} + 2\hat{j} + 2\hat{k}),$$

$\lambda \in \mathbf{R}$ , then an angle between  $L_1$  and  $L_2$  is equal to :

Options :

6564455547.  $\frac{\pi}{6}$

6564455548.  $\frac{\pi}{12}$

6564455549.  $\cos^{-1}\left(\frac{4}{5}\right)$

6564455550.  $\cos^{-1}\left(\frac{20}{21}\right)$

Question Number : 15 Question Id : 6564451594 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

माना कि बिन्दु  $(1, 2, -4)$  से होकर जाने वाली और दो रेखाओं  $\frac{x-8}{3} = \frac{y+19}{-16} = \frac{z-10}{7}$  तथा  $\frac{x-15}{3} = \frac{y-29}{8} = \frac{z-5}{-5}$

पर लंब रेखा  $L_1$  है। यदि  $L_2$  रेखा  $\vec{r} = 7\hat{i} - 6\hat{k} + \lambda(\hat{i} + 2\hat{j} + 2\hat{k})$ ,  $\lambda \in \mathbf{R}$  है, तो  $L_1$  तथा  $L_2$  के मध्य एक कोण बराबर है :

Options :

6564455547.  $\frac{\pi}{6}$

6564455548.  $\frac{\pi}{12}$

6564455549.  $\cos^{-1}\left(\frac{4}{5}\right)$

6564455550.  $\cos^{-1}\left(\frac{20}{21}\right)$

**Question Number : 16 Question Id : 6564451595 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes**  
**Is Question Mandatory : No**  
**Correct Marks : 4 Wrong Marks : 1**

Let  $f$  be a differentiable non-zero function and  $3 \int_0^x f(t) dt = 2(f(x))^3$ . Then  $\int_0^1 \frac{3(f(x))^4}{\sqrt{1+(f(x))^{12}}} dx$  is

equal to :

**Options :**

6564455551.  $\log_e(\sqrt{2} + 2)$

6564455552.  $\log_e(\sqrt{2} - 1)$

6564455553.  $\log_e(1 + \sqrt{2})$

6564455554.  $\log_e(3 - \sqrt{2})$

**Question Number : 16 Question Id : 6564451595 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes**  
**Is Question Mandatory : No**  
**Correct Marks : 4 Wrong Marks : 1**

माना  $f$  एक अवकलनीय शून्येतर फलन है तथा  $3 \int_0^x f(t) dt = 2(f(x))^3$  है, तो  $\int_0^1 \frac{3(f(x))^4}{\sqrt{1+(f(x))^{12}}} dx$  बराबर है :

**Options :**

6564455551.  $\log_e(\sqrt{2} + 2)$

6564455552.  $\log_e(\sqrt{2} - 1)$

6564455553.  $\log_e(1 + \sqrt{2})$

6564455554.  $\log_e(3 - \sqrt{2})$

**Question Number : 17 Question Id : 6564451596 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes**  
**Is Question Mandatory : No**  
**Correct Marks : 4 Wrong Marks : 1**

Let  $f(x) = \sum_{r=1}^{10} \cot^{-1}(1 - (x+r) + (x+r)^2)$ ,  $x \geq 0$ . Then  $\lim_{x \rightarrow \infty} (\tan(f(x)) + \sec^2(f(x)))$  is :

Options :

6564455555. 0

6564455556. 1

6564455557. 2

6564455558. not defined

Question Number : 17 Question Id : 6564451596 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

माना  $f(x) = \sum_{r=1}^{10} \cot^{-1}(1 - (x+r) + (x+r)^2)$ ,  $x \geq 0$  है, तो  $\lim_{x \rightarrow \infty} (\tan(f(x)) + \sec^2(f(x)))$  है :

Options :

6564455555. 0

6564455556. 1

6564455557. 2

6564455558. परिभाषित नहीं

Question Number : 18 Question Id : 6564451597 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The area of the region, enclosed between the curves  $y = \cos x$  and  $y = |\cos x|$  for  $0 \leq x \leq 3\pi$ , is :

Options :

6564455559. 3

6564455560. 5

6564455561. 6

6564455562. 12

Question Number : 18 Question Id : 6564451597 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

$0 \leq x \leq 3\pi$  के लिए वक्रों  $y = \cos x$  तथा  $y = |\cos x|$  से घिरे क्षेत्र का क्षेत्रफल है :

**Options :**

6564455559. 3

6564455560. 5

6564455561. 6

6564455562. 12

**Question Number : 19 Question Id : 6564451598 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If  $\int_4^9 \frac{x - \sqrt{x}}{x(x-1)} dx = \alpha$ , then  $e^\alpha$  is equal to :

**Options :**

6564455563. 9/4

6564455564. 16/9

6564455565. 4/9

6564455566. 4/3

**Question Number : 19 Question Id : 6564451598 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

यदि  $\int_4^9 \frac{x - \sqrt{x}}{x(x-1)} dx = \alpha$ , तो  $e^\alpha$  बराबर है :

**Options :**

6564455563. 9/4

6564455564. 16/9

6564455565. 4/9

6564455566. 4/3

**Question Number : 20 Question Id : 6564451599 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If the function  $f(x)$  defined by  $f(x) = \begin{cases} \frac{\log_e(1+5x) - \log_e(1-2x)}{x}, & x \neq 0 \\ l, & x = 0 \end{cases}$

is continuous at  $x=0$ , then the value of  $l$  is :

Options :

6564455567. 3

6564455568. 2

6564455569. 5

6564455570. 7

Question Number : 20 Question Id : 6564451599 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

यदि  $f(x) = \begin{cases} \frac{\log_e(1+5x) - \log_e(1-2x)}{x}, & x \neq 0 \\ l, & x = 0 \end{cases}$

द्वारा परिभाषित फलन  $f(x)$ ,  $x=0$  पर संतत है, तो  $l$  का मान है :

Options :

6564455567. 3

6564455568. 2

6564455569. 5

6564455570. 7

## Mathematics Section B

Section Id :	656445118
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	5
Number of Questions to be attempted :	5
Section Marks :	20
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	656445118
Question Shuffling Allowed :	Yes

Question Number : 21 Question Id : 6564451600 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

Let  $A = \begin{bmatrix} 1 & 2 & 3 \\ 0 & 2 & 3 \\ 0 & 0 & 1 \end{bmatrix}$  and let P be a  $3 \times 3$  matrix. If  $AP = \begin{bmatrix} 1 & 0 & 1 \\ 1 & 1 & 0 \\ 0 & 1 & 1 \end{bmatrix}$  and  $[1 \ 0 \ 2] P \begin{bmatrix} 1 \\ 0 \\ 2 \end{bmatrix} = [k]_{1 \times 1}$ ,

then k is equal to \_\_\_\_\_.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 21 Question Id : 6564451600 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

माना  $A = \begin{bmatrix} 1 & 2 & 3 \\ 0 & 2 & 3 \\ 0 & 0 & 1 \end{bmatrix}$  तथा माना P एक  $3 \times 3$  आव्यूह है। यदि  $AP = \begin{bmatrix} 1 & 0 & 1 \\ 1 & 1 & 0 \\ 0 & 1 & 1 \end{bmatrix}$  और  $[1 \ 0 \ 2] P \begin{bmatrix} 1 \\ 0 \\ 2 \end{bmatrix} = [k]_{1 \times 1}$

हैं, तो k बराबर है \_\_\_\_\_।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 22 Question Id : 6564451601 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

If  $\binom{10}{C_1}^2 + 2\binom{10}{C_2}^2 + \dots + 10\binom{10}{C_{10}}^2 = m\binom{n}{C_m}$ , then  $m+n$  equals \_\_\_\_\_.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 22 Question Id : 6564451601 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

यदि  $\binom{10}{C_1}^2 + 2\binom{10}{C_2}^2 + \dots + 10\binom{10}{C_{10}}^2 = m\binom{n}{C_m}$ , तो  $m+n$  बराबर है \_\_\_\_\_।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 23 Question Id : 6564451602 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

If  $\sum_{x=1}^{n^2} \sqrt{\left((x \cos(\cot^{-1} x) + \sin(\cot^{-1} x))^2 - 1\right)} = An^4 + Bn^2$ , then  $2(A + B)$  equals \_\_\_\_\_.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 23 Question Id : 6564451602 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

यदि  $\sum_{x=1}^{n^2} \sqrt{\left((x \cos(\cot^{-1} x) + \sin(\cot^{-1} x))^2 - 1\right)} = An^4 + Bn^2$ , तो  $2(A + B)$  बराबर है \_\_\_\_\_ ।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 24 Question Id : 6564451603 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

Let  $\vec{a} = 2\hat{i} + \hat{j} - \hat{k}$  and  $\vec{b} = 3\hat{i} + 2\hat{j} + 4\hat{k}$ . Let for some  $\lambda, \mu \in \mathbb{R}$ , a vector  $\vec{c} = \lambda\vec{a} + \mu\vec{b}$ . If  $\vec{a} \cdot \vec{c} = 16$  and  $\vec{b} \times \vec{c} = -12\hat{i} + 22\hat{j} - 2\hat{k}$ , then  $|\vec{c}|^2$  equals \_\_\_\_\_.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 24 Question Id : 6564451603 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

माना  $\vec{a} = 2\hat{i} + \hat{j} - \hat{k}$  तथा  $\vec{b} = 3\hat{i} + 2\hat{j} + 4\hat{k}$ . माना किसी  $\lambda, \mu \in \mathbb{R}$  के लिए, एक सदिश  $\vec{c} = \lambda\vec{a} + \mu\vec{b}$  है। यदि  $\vec{a} \cdot \vec{c} = 16$  तथा  $\vec{b} \times \vec{c} = -12\hat{i} + 22\hat{j} - 2\hat{k}$ , तो  $|\vec{c}|^2$  बराबर है \_\_\_\_\_ ।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 25 Question Id : 6564451604 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

If the differential equation for the family of circles passing through the points (19, 0) and (-19, 0) is  $2xy dx + (\alpha x^2 + \beta y^2 + \gamma)dy = 0$ , then  $\alpha + \beta + \gamma$  is equal to \_\_\_\_\_.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

Question Number : 25 Question Id : 6564451604 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 1

यदि बिन्दुओं (19, 0) तथा (-19, 0) से होकर जाने वाले वृत्तों के कुल का अवकल समीकरण  $2xy dx + (\alpha x^2 + \beta y^2 + \gamma)dy = 0$  है, तो  $\alpha + \beta + \gamma$  बराबर है \_\_\_\_\_ ।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1

## Aptitude Test

Section Id :	656445119
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	50
Section Marks :	200
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	656445119
Question Shuffling Allowed :	Yes

Question Number : 26 Question Id : 6564451605 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Structure which is designed to look impressive and wonderful from a far distance, has a :

Options :

6564455576. Micro scale

6564455577. Human scale

6564455578. Monumental scale

6564455579. Nano scale

**Question Number : 26 Question Id : 6564451605 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

एक ऐसे ढांचे की संरचना जिसको दूर से देखने पर प्रभावशाली और अद्भुत दिखाई दे। उसको कहते हैं :

**Options :**

6564455576. सूक्ष्म पैमाना

6564455577. मानवीय पैमाना

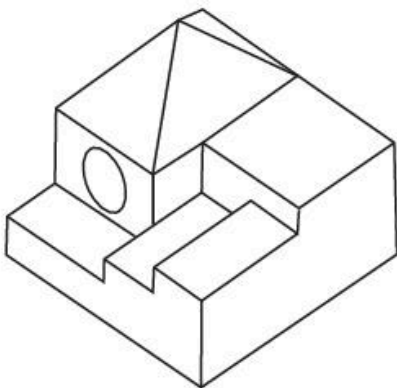
6564455578. स्मारक पैमाना

6564455579. नैनो पैमाना

**Question Number : 27 Question Id : 6564451606 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The question fig. shows the 3D view of an object. Identify the correct number of visible surfaces.



**Options :**

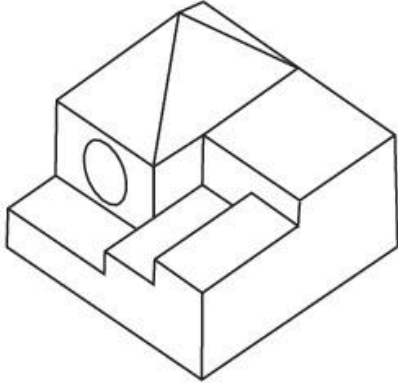
6564455580. 11

6564455581. 14

6564455582. 12

Question Number : 27 Question Id : 6564451606 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1

प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है। वस्तु के दिखाई दे रहे पृष्ठों की कुल संख्या कितनी है ?



Options :

6564455580. 11

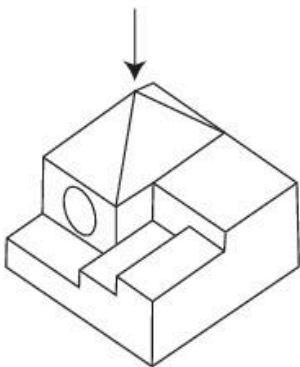
6564455581. 14

6564455582. 12

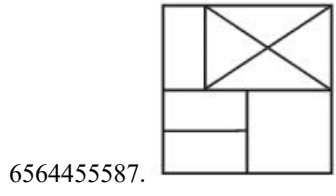
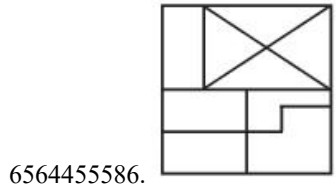
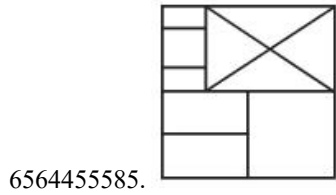
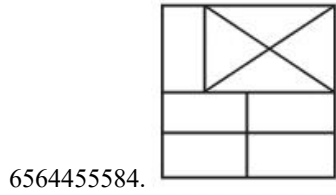
6564455583. 13

Question Number : 28 Question Id : 6564451607 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1

The question figure shows the 3D view of an object. Identify the correct view looking in the direction of arrow.

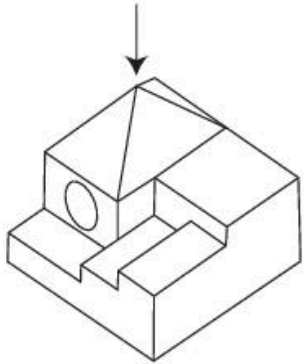


Options :

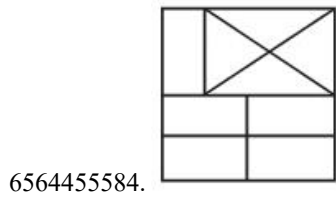


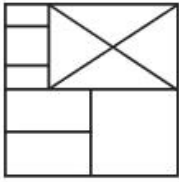
**Question Number : 28 Question Id : 6564451607 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है तीर की दिशा में देखते हुए सही दृश्य का चयन करें।

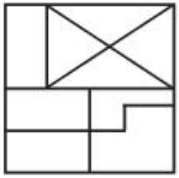


**Options :**

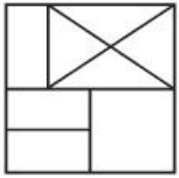




6564455585.



6564455586.

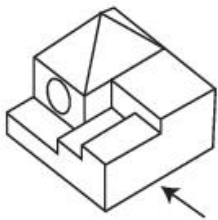


6564455587.

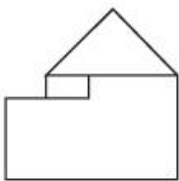
**Question Number : 29 Question Id : 6564451608 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

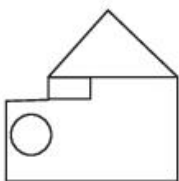
The question figure shows the 3D view of an object. Identify the correct view looking in the direction of arrow.



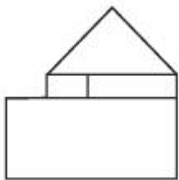
**Options :**



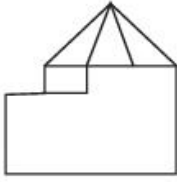
6564455588.



6564455589.



6564455590.

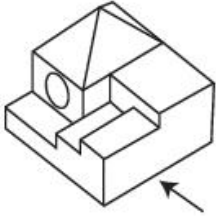


6564455591.

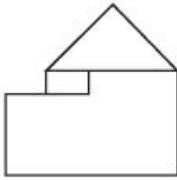
**Question Number : 29 Question Id : 6564451608 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

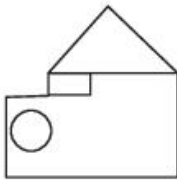
प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है। तीर की दिशा में देखते हुए सही दृश्य का चयन करें।



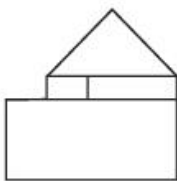
**Options :**



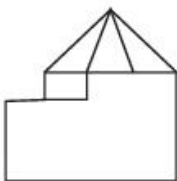
6564455588.



6564455589.



6564455590.

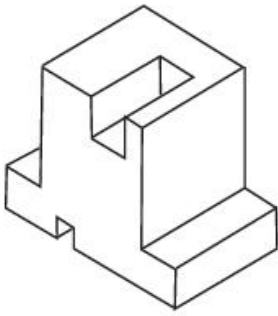


6564455591.

**Question Number : 30 Question Id : 6564451609 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The question figure shows the 3D view of an object. Identify the correct Number of visible surfaces.



Options :

6564455592. 9

6564455593. 10

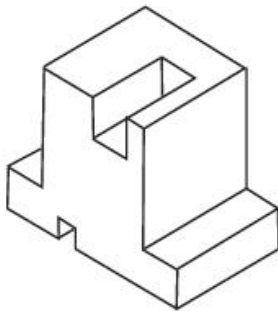
6564455594. 11

6564455595. 12

Question Number : 30 Question Id : 6564451609 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है। दिखाई दे रहे पृष्ठों की सही संख्या क्या है ?



Options :

6564455592. 9

6564455593. 10

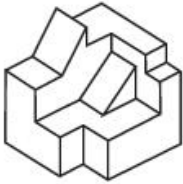
6564455594. 11

6564455595. 12

Question Number : 31 Question Id : 6564451610 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The question figure shows the 3D view of an object. Identify the correct number of visible surfaces.



Options :

6564455596. 13

6564455597. 14

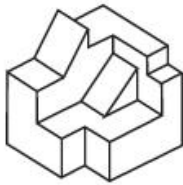
6564455598. 15

6564455599. 18

Question Number : 31 Question Id : 6564451610 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है, वस्तु के दिखाई दे रहे कुल पृष्ठों की संख्या क्या है?



Options :

6564455596. 13

6564455597. 14

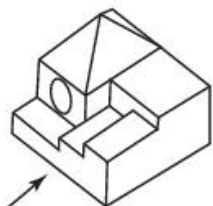
6564455598. 15

6564455599. 18

Question Number : 32 Question Id : 6564451611 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The question figure shows the 3D view of an object. Looking in the direction of arrow identify the correct view.



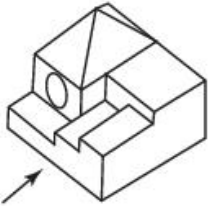
Options :



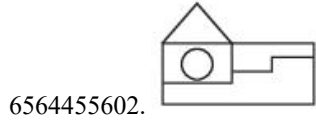
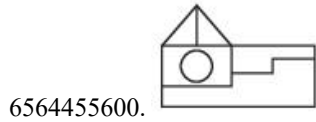
Question Number : 32 Question Id : 6564451611 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया है। तीर की दिशा में देखते हुए सही दृश्य को पहचाने।



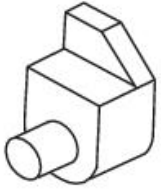
Options :



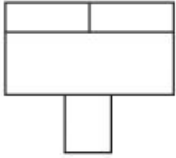
Question Number : 33 Question Id : 6564451612 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

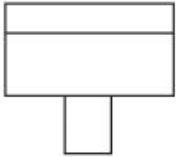
The question figure shows the 3D view of an object. Identify the correct top view.



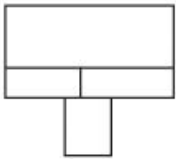
Options :



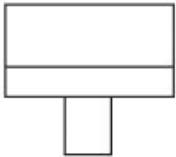
6564455604.



6564455605.



6564455606.

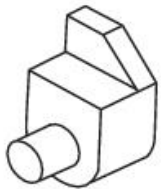


6564455607.

Question Number : 33 Question Id : 6564451612 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

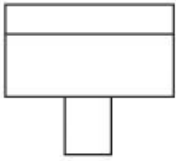
प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है। वस्तु के ऊपरी दृश्य को पहचानें।



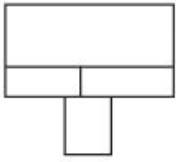
Options :



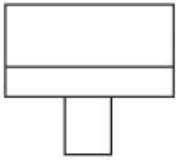
6564455604.



6564455605.



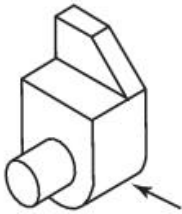
6564455606.



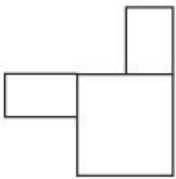
6564455607.

**Question Number : 34 Question Id : 6564451613 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

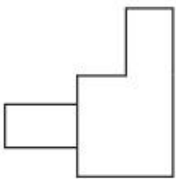
The question figure shows the 3D view of an object. Identify the correct view looking in the direction of arrow.



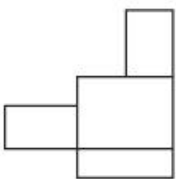
**Options :**



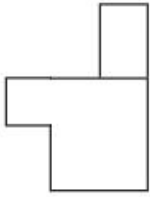
6564455608.



6564455609.



6564455610.

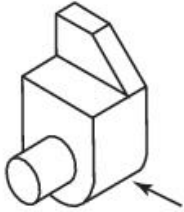


6564455611.

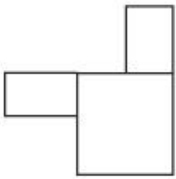
**Question Number : 34 Question Id : 6564451613 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

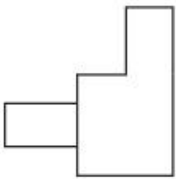
प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है। तीर की दिशा में देखते हुए सही दृश्य को पहचाने।



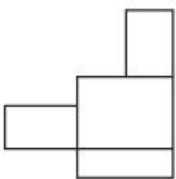
**Options :**



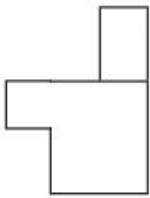
6564455608.



6564455609.



6564455610.

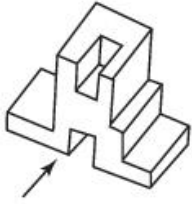


6564455611.

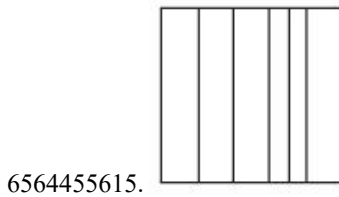
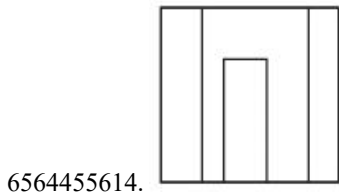
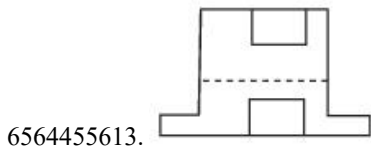
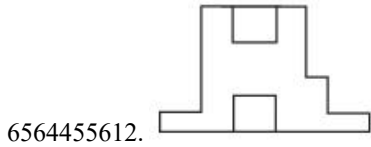
**Question Number : 35 Question Id : 6564451614 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The question figure shows the 3D view of an object. Identify the correct view of the object looking in the direction of arrow.



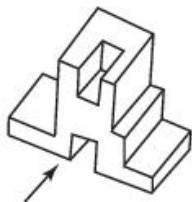
Options :



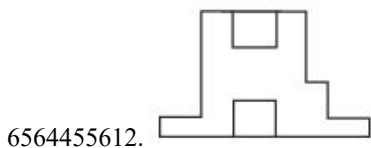
Question Number : 35 Question Id : 6564451614 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

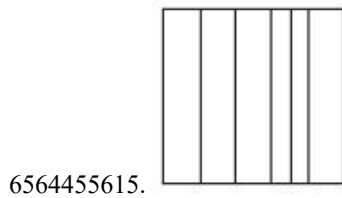
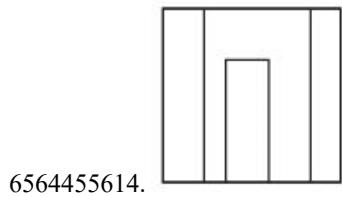
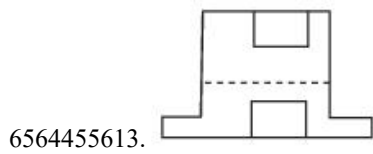
Correct Marks : 4 Wrong Marks : 1

प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है तीर की दिशा में देखते हुए सही दृश्य को पहचाने।



Options :

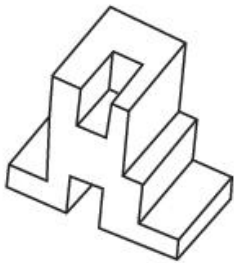




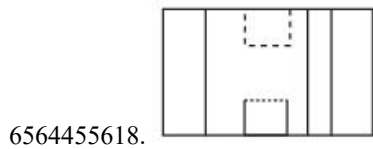
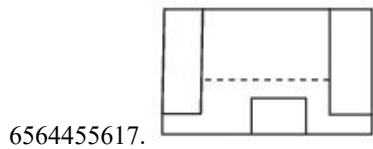
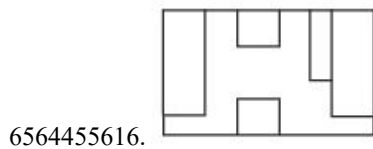
**Question Number : 36 Question Id : 6564451615 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

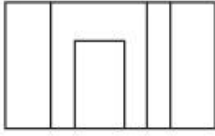
**Correct Marks : 4 Wrong Marks : 1**

In a question figure a 3D object is given. Identify the correct top view of the object amongst the answer figures.



**Options :**



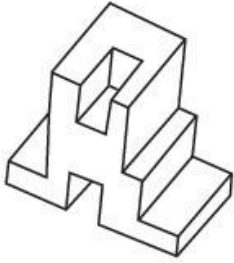


6564455619.

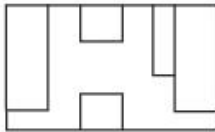
**Question Number : 36 Question Id : 6564451615 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

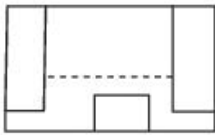
प्रश्न आकृति में एक वस्तु के 3D दृश्य को दर्शाया गया है। वस्तु के ऊपरी दृश्य का दिये गये विकल्पों में से सही विकल्प का चयन करें।



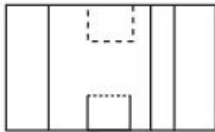
**Options :**



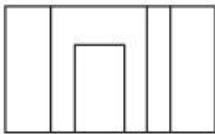
6564455616.



6564455617.



6564455618.



6564455619.

**Question Number : 37 Question Id : 6564451616 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

How many edges does a cube have ?

**Options :**

6564455620. 8

6564455621. 10

6564455622. 6

6564455623. 12

**Question Number : 37 Question Id : 6564451616 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

एक घन में कुल कितने किनारे होते हैं ?

**Options :**

6564455620. 8

6564455621. 10

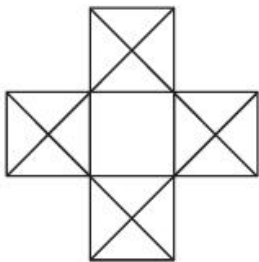
6564455622. 6

6564455623. 12

**Question Number : 38 Question Id : 6564451617 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

How many squares are there in the given figure ?



**Options :**

6564455624. 5

6564455625. 8

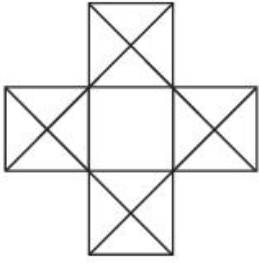
6564455626. 6

6564455627. 7

**Question Number : 38 Question Id : 6564451617 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

प्रश्न आकृति में कुल कितने वर्ग हैं ?



Options :

6564455624. 5

6564455625. 8

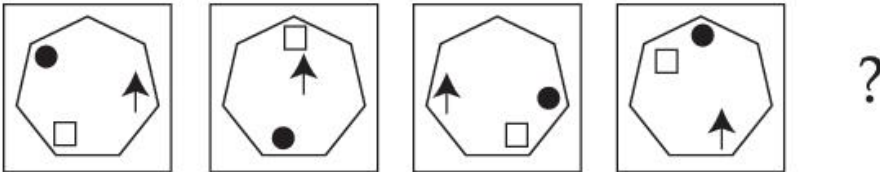
6564455626. 6

6564455627. 7

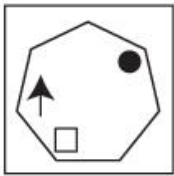
Question Number : 39 Question Id : 6564451618 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

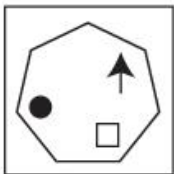
Which of the given shapes would complete the sequence ?



Options :



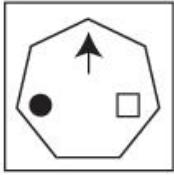
6564455628.



6564455629.



6564455630.

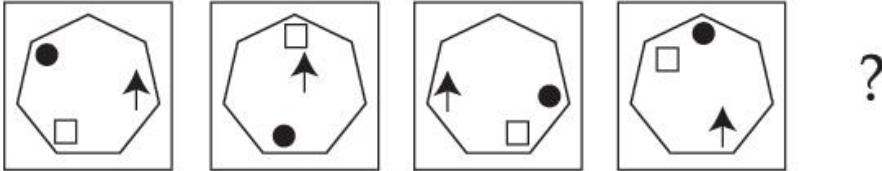


6564455631.

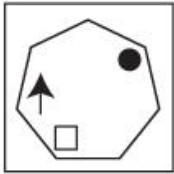
Question Number : 39 Question Id : 6564451618 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

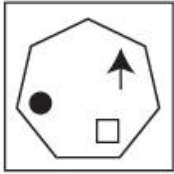
दी गई आकृतियों में से कौन-सी आकृति शृंखला को पूरा करेगी ?



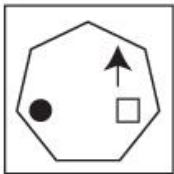
Options :



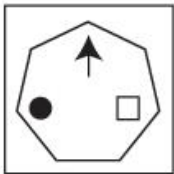
6564455628.



6564455629.



6564455630.



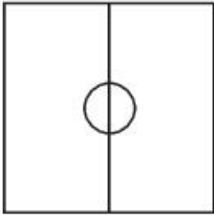
6564455631.

Question Number : 40 Question Id : 6564451619 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

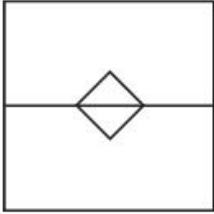
Correct Marks : 4 Wrong Marks : 1

Identify the figure which is odd from rest :

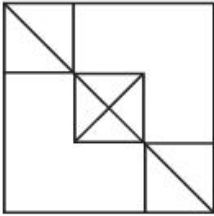
Options :



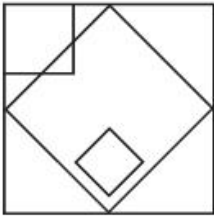
6564455632.



6564455633.



6564455634.



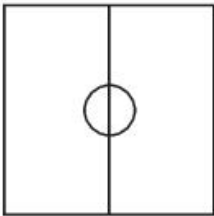
6564455635.

Question Number : 40 Question Id : 6564451619 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

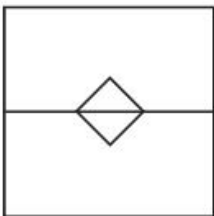
Correct Marks : 4 Wrong Marks : 1

निम्नलिखित में से कौन-सी आकृति बाकी आकृतियों से विषम है ?

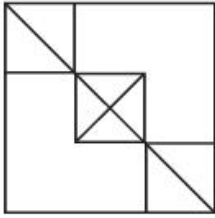
Options :



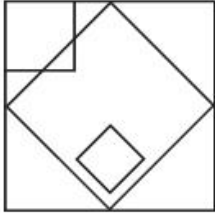
6564455632.



6564455633.



6564455634.



6564455635.

**Question Number : 41 Question Id : 6564451620 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Identify the mirror image of the given word along X-X' axis :



**Options :**

6564455636. DAYLGHITING

6564455637. DAYLGHITING

6564455638. GNIILHGITYAD

6564455639. GNIILHGITYAD

**Question Number : 41 Question Id : 6564451620 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

दिए गए शब्द का X-X' अक्ष के अनुरूप दर्पण चित्र पहचानें :



**Options :**

6564455636. DAYLGHITING

6564455637. DAYLIGNC

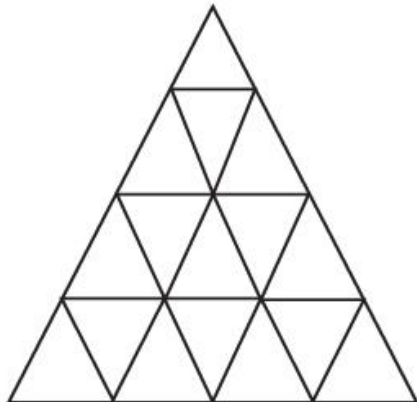
6564455638. GILHGIYAD

6564455639. GILHGIYAD

Question Number : 42 Question Id : 6564451621 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What is the total number of triangles in the given diagram ?



Options :

6564455640. 27

6564455641. 26

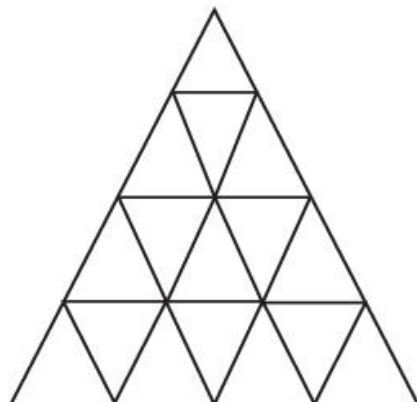
6564455642. 23

6564455643. 22

Question Number : 42 Question Id : 6564451621 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

दिए गए आकृति में कुल कितनी त्रिभुज है ?



**Options :**

6564455640. 27

6564455641. 26

6564455642. 23

6564455643. 22

**Question Number : 43 Question Id : 6564451622 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Choose the appropriate option which most closely resembles the water image of the given word 'FROG' :

**Options :**

6564455644. GORF

6564455645. FROG

6564455646. FROG

6564455647. FROG

**Question Number : 43 Question Id : 6564451622 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

दिये गये शब्द 'FROG' का जल चित्र पहचाने, जो सबसे ज्यादा मिलता जुलता हो।

**Options :**

6564455644. GORF

6564455645. FROG

6564455646. FROG

6564455647. FROG

**Question Number : 44 Question Id : 6564451623 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Identify the mirror image of the given word along X-X' axis :

ENTABLATURE 

Options :

6564455648. ENTABLATURE

6564455649. ENTABLATURE

6564455650. ENTALBATURE

6564455651. ENTALBATURE

Question Number : 44 Question Id : 6564451623 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

प्रश्न में दिये गये चित्र का X-X' अक्ष के अनुरूप दर्पण चित्र पहचाने।

ENTABLATURE 

Options :

6564455648. ENTABLATURE

6564455649. ENTABLATURE

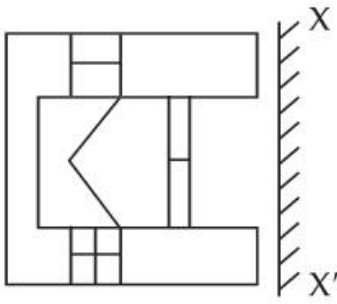
6564455650. ENTALBATURE

6564455651. ENTALBATURE

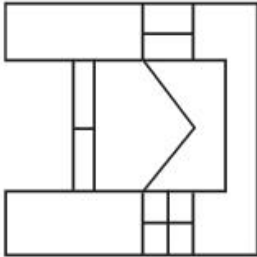
Question Number : 45 Question Id : 6564451624 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

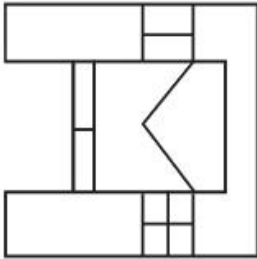
Identify the correct mirror image of the given figure along X-X' axis :



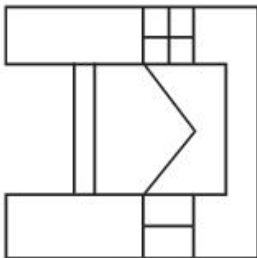
Options :



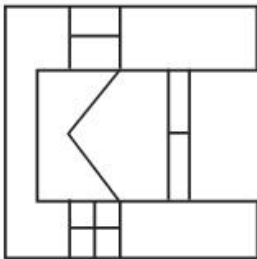
6564455652.



6564455653.



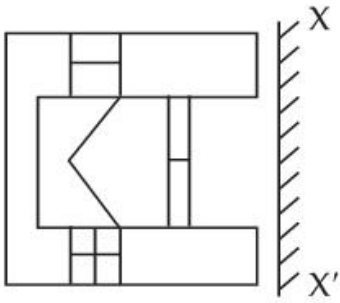
6564455654.



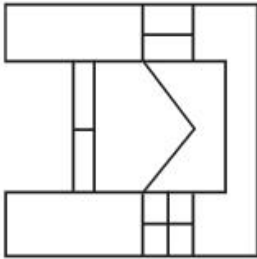
6564455655.

Question Number : 45 Question Id : 6564451624 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1

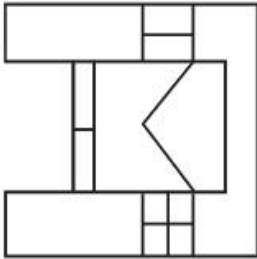
दी गई आकृति का X-X' अक्ष के अनुरूप सही दर्पण चित्र पहचाने।



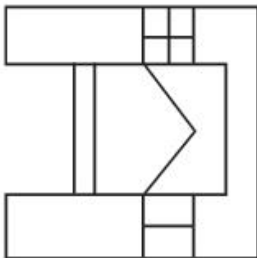
Options :



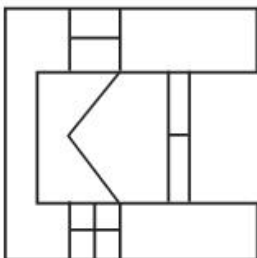
6564455652.



6564455653.



6564455654.



6564455655.

Question Number : 46 Question Id : 6564451625 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which among the following is an excellent hardwood (timber) for furniture ?

Options :

6564455656. Royal Palm

6564455657. Rose

6564455658. Shisham

6564455659. Accacia

**Question Number : 46 Question Id : 6564451625 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

नीचे दी गई लकड़ियों में से फर्नीचर बनाने के लिए सबसे श्रेष्ठ और कठोर लकड़ी कौन-सी है ?

**Options :**

6564455656. रॉयल पाम

6564455657. गुलाब (रोज)

6564455658. शीशम

6564455659. बबूल

**Question Number : 47 Question Id : 6564451626 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which colour scheme is typically considered to be calming and is often used in bedrooms and bathrooms ?

**Options :**

6564455660. Warm colours (red, orange)

6564455661. Cool colours (blue, green)

6564455662. Triadic colours (green, orange and purple)

6564455663. Primary colour (red, blue, yellow)

**Question Number : 47 Question Id : 6564451626 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

रंगों की किस योजना को शांति के लिये लिया गया है, जिन्हें ज्यादातर शयनकक्ष और स्नानघर में उपयोग किया जाता है ?

**Options :**

6564455660. उष्ण रंग (लाल, केसरियां)
6564455661. शीत रंग (नीला, हरा)
6564455662. त्रयात्मक रंग (हरा, केसरियां और बैंगनी)
6564455663. प्राथमिक रंग (लाल, नीला, पीला)

**Question Number : 48 Question Id : 6564451627 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Bharat Mandapam is designed by which architecture firm ?

**Options :**

6564455664. Archohm
6564455665. Arcop
6564455666. C.P. Kukreja
6564455667. Hafeez Contractor

**Question Number : 48 Question Id : 6564451627 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

किस वास्तुकला व्यवसाय संघ ने 'भारत मंडपम्' की संरचना की है ?

**Options :**

6564455664. आर्कहोम
6564455665. आर्कओप
6564455666. सी.पी. कुकरेजा
6564455667. हफीज कांटेक्टर

**Question Number : 49 Question Id : 6564451628 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Gable : Roof : : Pier : \_\_\_\_\_.

**Options :**

6564455668. Door

6564455669. Column

6564455670. Railing

6564455671. Floor

**Question Number : 49 Question Id : 6564451628 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

त्रिअंकी छत : छत : : स्तंभ : \_\_\_\_\_.

**Options :**

6564455668. दरवाजा

6564455669. खंबा

6564455670. रेलिंग

6564455671. फर्श

**Question Number : 50 Question Id : 6564451629 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In which architectural style are you most likely to find "chhatris" as decorative elements ?

**Options :**

6564455672. Gothic

6564455673. Baroque

6564455674. Mughal

6564455675. Renaissance

**Question Number : 50 Question Id : 6564451629 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

वास्तुकला की किस शैली में छतरियों को एक सजावटी घटक के रूप में ज्यादातर उपयोग किया गया है ?

**Options :**

6564455672. गोथिक

6564455673. बरोक

6564455674. मुगल

6564455675. नवजागृति (नवचेतना)

**Question Number : 51 Question Id : 6564451630 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of these is a well known proportion that is aesthetically pleasing and used in architecture ?

**Options :**

6564455676. Golden ratio

6564455677. Newton's constant

6564455678. Moore's law

6564455679. Symmetry ratio

**Question Number : 51 Question Id : 6564451630 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से कौन-सा अनुपात सौंदर्यात्मक आनन्दकायी है और वास्तुकला में उपयोग होता है ?

**Options :**

6564455676. गोल्डन अनुपात

6564455677. न्यूटन अचल (न्यूटन कोन्स्टेंट)

6564455678. मूरे का सूत्र (मूरस लॉ)

6564455679. संतुलित अनुपात

**Question Number : 52 Question Id : 6564451631 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The primary function of a 'roof truss' is \_\_\_\_\_.

Choose the appropriate answer from the following :

**Options :**

6564455680. To increase the interior space

6564455681. To act as a wind breaker

6564455682. To provide thermal comfort

6564455683. To support the weight of the roof

**Question Number : 52 Question Id : 6564451631 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

छत का ट्रस ( truss ) का प्राथमिक कार्य \_\_\_\_\_ है।

सही उत्तर का चयन करें।

**Options :**

6564455680. आंतरिक स्थान को बढ़ाने के लिए

6564455681. हवा के दबाव को तोड़ने का काम करेगा

6564455682. तापीय आराम को बढ़ाता है

6564455683. छत के भार को सहारा देता है

**Question Number : 53 Question Id : 6564451632 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Hawa Mahal located at Jaipur was built by :

**Options :**

6564455684. Maharaja Jai Singh - II

6564455685. Ushtad Ahmad Lahouri

6564455686. Maharaja Sawai Pratap Singh

6564455687. Ustad Khalil

**Question Number : 53 Question Id : 6564451632 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

जयपुर में स्थित हवा महल किसके द्वारा बनवाया गया ?

**Options :**

6564455684. महाराजा जय सिंह - II

6564455685. उस्ताद अहमद लाहौरी

6564455686. महाराजा सवाई प्रताप सिंह

6564455687. उस्ताद खलील

**Question Number : 54 Question Id : 6564451633 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The textural appearance of “exposed aggregate” concrete is created by :

**Options :**

6564455688. Polishing the surface

6564455689. Adding artificial pigments

6564455690. Using high grade cement

6564455691. Using stones in the mix

**Question Number : 54 Question Id : 6564451633 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

बनावटी दिखावट को दिखाने के लिए ‘बाहरी एग्रीगेट’ (Exposed aggregates) में उपयोग होने वाली कंक्रीट किससे तैयार होती है ?

**Options :**

6564455688. सतह को पालिश करके

6564455689. कृत्रिम रंजक मिलाकर

6564455690. सीमेंट की उच्चतम किस्म से

6564455691. मिश्रण में पत्थरों को मिलाकर

**Question Number : 55 Question Id : 6564451634 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The term ‘International style’ is used to describe architecture that :

**Options :**

6564455692. Is derived from ancient Greek architecture

6564455693. Focuses on decoration and ornamentation

6564455694. Focuses on functionality and simple geometric forms

6564455695. Uses traditional building materials

**Question Number : 55 Question Id : 6564451634 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

'अंतर्राष्ट्रीय शैली' में वस्तुकला के किस निबंधन का वर्णन करती है?

**Options :**

6564455692. यह प्राचीन ग्रीक वास्तुकला से लिया गया है।

6564455693. इसमें सजावट और अलंकरण को दर्शाया जाता है।

6564455694. अभिलाक्षणिकता और साधारण ज्यामितीय आकारों पर ध्यान दिया जाता है।

6564455695. परंपरावादी भवन सामग्री का उपयोग।

**Question Number : 56 Question Id : 6564451635 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following finishing materials is known for its textured surface and is commonly used in facades ?

**Options :**

6564455696. Glass

6564455697. Stucco

6564455698. Steel

6564455699. Timber

**Question Number : 56 Question Id : 6564451635 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

निम्नलिखित में से किस सामान को गृहमुख के परिपूर्ण में एक उतक पृष्ठ के रूप में सामान्य रूप से उपयोग किया जाता है ?

**Options :**

6564455696. काँच

6564455697. स्को

6564455698. स्टील (इस्पात)

6564455699. लकड़ी

**Question Number : 57 Question Id : 6564451636 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Central Vista Redevelopment Project was designed by which architect ?

**Options :**

6564455700. B.V. Doshi

6564455701. Bimal Patel

6564455702. Charles Correa

6564455703. U.C. Jain

**Question Number : 57 Question Id : 6564451636 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

किस वस्तुकार ने सेंट्रल विस्टा पुनर्निर्माण परियोजना की संरचना की है ?

**Options :**

6564455700. बी.वी. दोशी

6564455701. बिमल पटेल

6564455702. चार्ल्स कोरिया

6564455703. यू.सी. जैन

**Question Number : 58 Question Id : 6564451637 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Guggenheim Museum located in Manhattam, New York city was designed by :

**Options :**

6564455704. Gustave Eiffel

6564455705. Frank Llyod Wright

6564455706. John Russel Pope

6564455707. Tom Wright

**Question Number : 58 Question Id : 6564451637 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

न्यूयार्क शहर में स्थित गुगेनहाम म्यूजियम के वास्तुकार कौन है ?

**Options :**

6564455704. गुस्तेव आइफिल

6564455705. फ्रैंक लल्लोड राइट

6564455706. जॉन रसेल पोप

6564455707. टाम राइट

**Question Number : 59 Question Id : 6564451638 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which organisation maintains the registration of Architects in India ?

**Options :**

6564455708. Indian Institute of Architects

6564455709. Council of Architecture

6564455710. Council of Indian Architects

6564455711. Institute of Architect of India

**Question Number : 59 Question Id : 6564451638 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

भारत में वास्तुकारों के पंजीकरण का कार्य कौन सी संस्था संभालती है ?

**Options :**

6564455708. इंडियन इन्स्टिट्यूट ऑफ आर्किटेक्ट्स

6564455709. काउंसिल ऑफ आर्केटेक्चर

6564455710. काउंसिल ऑफ इंडियन आर्केटेक्चर्स

6564455711. इन्स्टिट्यूट ऑफ आर्केटेक्ट ऑफ इण्डिया

**Question Number : 60 Question Id : 6564451639 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

'Fenestration' in architecture refers to :

**Options :**

6564455712. The layout of columns

6564455713. Materials used for roofing

6564455714. Windows and openings

6564455715. Construction of walls

**Question Number : 60 Question Id : 6564451639 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

'फैनिस्ट्रेशन' वास्तुकला में किसे दर्शाता है ?

**Options :**

6564455712. स्तंभों का खाका

6564455713. छत के लिए उपयोग होने वाली सामग्री

6564455714. खिड़कियां और सुराख

6564455715. दीवारों का निर्माण

**Question Number : 61 Question Id : 6564451640 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

National Gallery of Art was designed by whom ?

**Options :**

6564455716. I.M. Pie

6564455717. Louis XII

6564455718. F.L. Wright

6564455719. Le Corbusier

**Question Number : 61 Question Id : 6564451640 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

राष्ट्रीय कला भवन (National Gallery of Arts) की संरचना किस वास्तुकार ने की है ?

**Options :**

6564455716. आई.एम. पाई

6564455717. लुईस XII

6564455718. एफ.एल. राइट

6564455719. ली कार्बूजिएर

**Question Number : 62 Question Id : 6564451641 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What does 'ISI' stands for ?

**Options :**

6564455720. International Standard of Instruments

6564455721. Indian Standards of Isometrics

6564455722. International Standards of Isometrics

6564455723. Indian Standards Institute

**Question Number : 62 Question Id : 6564451641 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

'ISI' का पूर्ण रूप लिखें।

**Options :**

6564455720. International Standard of Instruments

6564455721. Indian Standards of Isometrics

6564455722. International Standards of Isometrics

6564455723. Indian Standards Institute

**Question Number : 63 Question Id : 6564451642 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The famous 'Parthenon' is located in which city ?

**Options :**

6564455724. Cairo

6564455725. Athens

6564455726. Paris

6564455727. Rome

**Question Number : 63 Question Id : 6564451642 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

प्रसिद्ध 'पार्थिनोन' किस शहर में स्थित है ?

**Options :**

6564455724. काईरो

6564455725. एथेन्स

6564455726. पैरिस

6564455727. रोम

**Question Number : 64 Question Id : 6564451643 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

'PRASAD' scheme stands for :

**Options :**

6564455728. Perception and Rejuvenation And Spiritual Association Drive

6564455729. Pilgrimage Rejuvenation and Spiritual Augmented Drive

6564455730. Pilgrimage Regeneration and Social Association Drive

6564455731. Perception and Reform Analysis in social and Demography

Question Number : 64 Question Id : 6564451643 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

'PRASAD' योजना का पूर्ण रूप लिखें।

Options :

6564455728. Perception and Rejuvenation And Spiritual Association Drive

6564455729. Pilgrimage Rejuvenation and Spiritual Augmented Drive

6564455730. Pilgrimage Regeneration and Social Association Drive

6564455731. Perception and Reform Analysis in social and Demography

Question Number : 65 Question Id : 6564451644 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List - I with List - II.

List - I

List - II

(A) B.V. Doshi, India

(I) Pritzker Award in 2004

(B) Philip Johnson, United States

(II) Pritzker Award in 1995

(C) Tadao Ando, Japan

(III) Pritzker Award in 2018

(D) Zaha Hadid, Iraq

(IV) Pritzker Award in 1979

Choose the correct answer from the options given below :

Options :

6564455732. (A)-(III), (B)-(IV), (C)-(II), (D)-(I)

6564455733. (A)-(III), (B)-(II), (C)-(IV), (D)-(I)

6564455734. (A)-(II), (B)-(III), (C)-(I), (D)-(IV)

6564455735. (A)-(II), (B)-(I), (C)-(III), (D)-(IV)

Question Number : 65 Question Id : 6564451644 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

मिलान करें :

**सूची - I**

- (A) बी.वी. दोसी, भारत
- (B) फिलिप जॉनसन, (संयुक्त राष्ट्र)
- (C) तडाओ एंडो, जापान
- (D) जाहा हदीद, ईराक

**सूची - II**

- (I) 2004 में प्रिज्जकर अवार्ड
- (II) 1995 में प्रिज्जकर अवार्ड
- (III) 2018 में प्रिज्जकर अवार्ड
- (IV) 1979 में प्रिज्जकर अवार्ड

दिये गये विकल्पों में से सही विकल्प का चयन करें।

**Options :**

6564455732. (A)-(III), (B)-(IV), (C)-(II), (D)-(I)

6564455733. (A)-(III), (B)-(II), (C)-(IV), (D)-(I)

6564455734. (A)-(II), (B)-(III), (C)-(I), (D)-(IV)

6564455735. (A)-(II), (B)-(I), (C)-(III), (D)-(IV)

**Question Number : 66 Question Id : 6564451645 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

**Match List - I with List - II.**

**List - I**

- (A) Colosseum
- (B) Parthenon
- (C) Milan Cathedral
- (D) Statue of Liberty

**List - II**

- (I) Temple dedicated to the Goddess Athena
- (II) Church, Italy
- (III) Roman goddess of freedom
- (IV) Roman Amphitheatre

Choose the **correct** answer from the options given below :

**Options :**

6564455736. (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

6564455737. (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

6564455738. (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

6564455739. (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

**Question Number : 66 Question Id : 6564451645 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

मिलान करें :

**सूची - I**

- (A) कालेजियम
- (B) पार्थनियोन
- (C) मिलान कैथेड्रल
- (D) स्टेचू ऑफ लिबर्टी

**सूची - II**

- (I) देवी ऐथिना को समर्पित मंदिर
- (II) चर्च, ईटली
- (III) आजादी की रोमन देवी
- (IV) रोमन रंगस्थल

दिये गये विकल्पों में से सही विकल्प का चयन करें।

**Options :**

6564455736. (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

6564455737. (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

6564455738. (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

6564455739. (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

**Question Number : 67 Question Id : 6564451646 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

**Match List - I with List - II.**

**List - I**

- (A) Abacus
- (B) Bollard
- (C) Baluster
- (D) Pinnacle

**List - II**

- (I) Vertical member of railing
- (II) Top part of column
- (III) Tapered upright structure rising from roof
- (IV) Short free standing column

Choose the **correct** answer from the options given below :

**Options :**

6564455740. (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

6564455741. (A)-(II), (B)-(IV), (C)-(I), (D)-(III)

6564455742. (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

6564455743. (A)-(II), (B)-(III), (C)-(IV), (D)-(I)

**Question Number : 67 Question Id : 6564451646 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

मिलान करें :

**सूची - I**

**सूची - II**

- |              |   |
|--------------|---|
| (A) अबेकस    | (I) रेलींग का लंबवत हिस्सा                        |
| (B) बोलाई    | (II) स्तंभ का ऊपरी भाग                            |
| (C) बालूस्टर | (III) छत के ऊपरी भाग में उबरा हुआ सुड़ाकार हिस्सा |
| (D) पिनाकल   | (IV) छोटा स्वतंत्र स्तंभ                          |

दिये गये विकल्पों में से सही विकल्प का चयन करें।

**Options :**

6564455740. (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

6564455741. (A)-(II), (B)-(IV), (C)-(I), (D)-(III)

6564455742. (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

6564455743. (A)-(II), (B)-(III), (C)-(IV), (D)-(I)

**Question Number : 68 Question Id : 6564451647 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

**Match List - I with List - II.**

**List - I**

**List - II**

- |                |                                      |
|----------------|--------------------------------------|
| (A) Matt       | (I) Silk like gloss                  |
| (B) Satin      | (II) Highest level of gloss          |
| (C) Semi-gloss | (III) More gloss than a satin finish |
| (D) Glossy     | (IV) Lowest level of gloss           |

Choose the **correct** answer from the options given below :

**Options :**

6564455744. (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

6564455745. (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

6564455746. (A)-(II), (B)-(I), (C)-(III), (D)-(IV)

6564455747. (A)-(IV), (B)-(I), (C)-(III), (D)-(II)

**Question Number : 68 Question Id : 6564451647 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

मिलान करें :

सूची - I

- (A) फीका
- (B) चिकना
- (C) अल्प-चमकदार
- (D) चमकदार

सूची - II

- (I) रेशम जैसा चमकदार
- (II) सबसे अधिक चमकदार
- (III) चिकनी परिसज्जा से ज्यादा चमकदार
- (IV) चमक का सबसे नीचला स्तर

नीचे दिये गये विकल्पों में से सही विकल्प का चयन करें।

Options :

6564455744. (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

6564455745. (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

6564455746. (A)-(II), (B)-(I), (C)-(III), (D)-(IV)

6564455747. (A)-(IV), (B)-(I), (C)-(III), (D)-(II)

Question Number : 69 Question Id : 6564451648 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements :

**Statement (I) :** Human scale in architecture refers to the design dimensions that are comfortable for human interaction.

**Statement (II) :** Monumental scale is most suitable for intimate and cozy spaces.

In the light of the above statements, choose the **most appropriate answer** from the options given below :

Options :

6564455748. Both **Statement I** and **Statement II** are correct

6564455749. Both **Statement I** and **Statement II** are incorrect

6564455750. **Statement I** is correct but **Statement II** is incorrect

6564455751. **Statement I** is incorrect but **Statement II** is correct

Question Number : 69 Question Id : 6564451648 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

नीचे दो कथन दिये गये हैं :

**कथन (I) :** वास्तुकला में मानवीय मापदंड है आयामों की संरचना जो मनुष्यों के मेल मिलाप के लिए आरामदायक होती है।

**कथन (II) :** स्मारकीय मापदंड (पैमाना) आंतरिक और आरामदायक स्थल के लिए ज्यादा उपयुक्त होता है।

ऊपर दिए गए कथनों पर प्रकाश डालते हुए सही विकल्प का चयन करें।

**Options :**

6564455748. दोनों कथन I और कथन II सही हैं।

6564455749. दोनों कथन I और कथन II सही नहीं हैं।

6564455750. कथन I सही है परंतु कथन II सही नहीं है।

6564455751. कथन I सही नहीं है परंतु कथन II सही है।

**Question Number : 70 Question Id : 6564451649 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements :

**Statement (I) :** A colour triangle is basically an arrangement of colors within a triangle, based on the additive combination of three primary colours at its corners. Where primary colours are yellow, red and blue.

**Statement (II) :** Secondary colours on the other hand are created when equal amounts of any two primary colours are mixed together.

In the light of the above statements, choose the **most appropriate answer** from the options given below :

**Options :**

6564455752. Both **Statement I** and **Statement II** are correct

6564455753. Both **Statement I** and **Statement II** are incorrect

6564455754. **Statement I** is correct but **Statement II** is incorrect

6564455755. **Statement I** is incorrect but **Statement II** is correct

**Question Number : 70 Question Id : 6564451649 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिये गये हैं :

**कथन (I) :** रंगों का त्रिकोण बुनियादी तौर पर रंगों की एक त्रिकोणीय व्यवस्था है जो कि प्राथमिक 3 रंगों के मिलावट से बनकर तैयार होता है। जहाँ पर प्राथमिक रंग पीला, लाल और नीला होता है।

**कथन (II) :** द्वितीय रंग जबकि समान मात्रा में दो प्राथमिक रंगों को आपस में मिलाकर तैयार करते हैं।

ऊपर दिए गए कथनों पर प्रकाश डालते हुए, दिए गए विकल्पों में से सही विकल्प का चयन करें।

**Options :**

6564455752. दोनों कथन I और कथन II सही हैं।

6564455753. दोनों कथन I और कथन II सही नहीं हैं।

6564455754. कथन I सही है परंतु कथन II सही नहीं है।

6564455755. कथन I सही नहीं है परंतु कथन II सही है।

**Question Number : 71 Question Id : 6564451650 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements :

**Statement (I) :** Due to sun, we have day and night, seasons, rains, winds, plants and human life.

**Statement (II) :** The latitude of a place is an angle of the place with reference to the plane passing through the equator on earth.

In the light of the above statements, choose the **most appropriate answer** from the options given below :

**Options :**

6564455756. Both **Statement I** and **Statement II** are correct

6564455757. Both **Statement I** and **Statement II** are incorrect

6564455758. **Statement I** is correct but **Statement II** is incorrect

6564455759. **Statement I** is incorrect but **Statement II** is correct

**Question Number : 71 Question Id : 6564451650 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

नीचे दो कथन दिये गये हैं :

**कथन (I) :** सूर्य की वजह से हमें दिन और रात, बारिश, हवा, ऋतुएं, पौधे और मनुष्य जीवन मिलता है।

**कथन (II) :** किसी स्थान का अक्षांश भूमध्य रेखा से गुजरने वाले तल के संदर्भ में उस स्थान का कोण है।

ऊपर दिए गए कथनों पर प्रकाश डालते हुए, सही विकल्प का चयन करें।

**Options :**

6564455756. दोनों कथन I और कथन II सही हैं।

6564455757. दोनों कथन I और कथन II सही हैं।

6564455758.

6564455759.

Question Number : 72 Question Id : 6564451651 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1

Options :

6564455760. Both Statement I and Statement II are correct

6564455761. Both Statement I and Statement II are incorrect

6564455762. Statement I is correct but Statement II is incorrect

6564455763. Statement I is incorrect but Statement II is correct

Question Number : 72 Question Id : 6564451651 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1

नीचे दो कथन दिये गये हैं :

**कथन (I) :** वर्षा समुच्चय रूप में प्रचलित नमी के हालात दर्शाती है।

**कथन (II) :** वर्षा को वर्षा पैमाने (gauge) से मिलीमीटर में मापा जाता है।

ऊपर दिए गए कथनों पर प्रकाश डालते हुए, सही विकल्प का चयन करें।

Options :

6564455760. दोनों कथन I और कथन II सही हैं।

6564455761. दोनों कथन I और कथन II सही नहीं हैं।

6564455762. कथन I सही है परंतु कथन II सही नहीं है।

6564455763. कथन I सही नहीं है परंतु कथन II सही है।

Question Number : 73 Question Id : 6564451652 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Identify the temple style of India represented in the given figure :



Options :

6564455764. Nagara style

6564455765. Dravidian style

6564455766. Orissan style

6564455767. Vesara style

Question Number : 73 Question Id : 6564451652 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

चित्र में भारत के किस मंदिर की शैली को दर्शाया गया है :



Options :

6564455764. नागरा शैली

6564455765. द्रविडियन शैली

6564455766. उडीसियन शैली

6564455767. वेशारा शैली

Question Number : 74 Question Id : 6564451653 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Identify the famous building in the given picture :



Options :

6564455768. Qutub Minar

6564455769. Jama Masjid

6564455770. Taj Mahal

6564455771. Hagia Sophia

Question Number : 74 Question Id : 6564451653 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

चित्र में दिखाई गई प्रसिद्ध इमारत को पहचाने।



Options :

6564455768. कुतुब मीनार

6564455769. जामा मस्जिद्

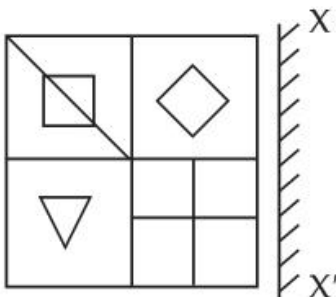
6564455770. ताज महल

6564455771. हागिया सोफिया

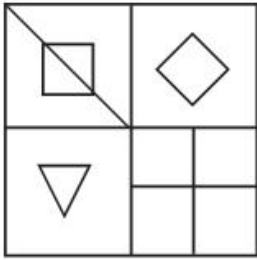
Question Number : 75 Question Id : 6564451654 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

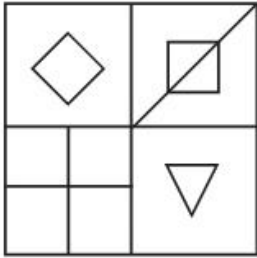
Identify the correct mirror image of the given figure along X-X' axis :



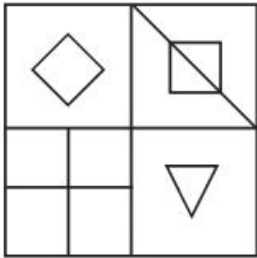
Options :



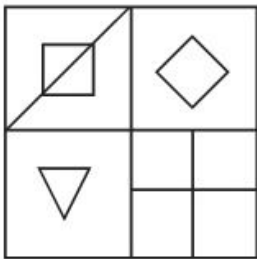
6564455772.



6564455773.



6564455774.

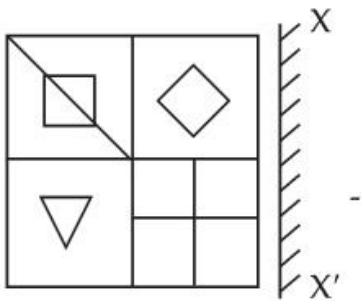


6564455775.

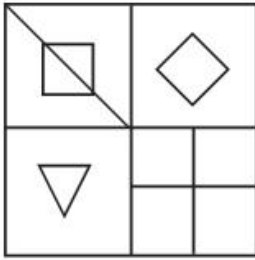
Question Number : 75 Question Id : 6564451654 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

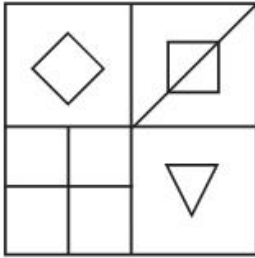
प्रश्न में दी गई आकृति का X-X' अक्ष के अनुरूप दर्पण चित्र पहचाने :



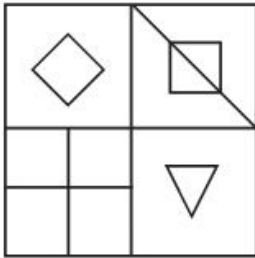
Options :



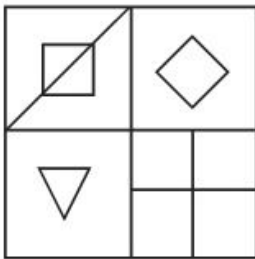
6564455772.



6564455773.



6564455774.



6564455775.

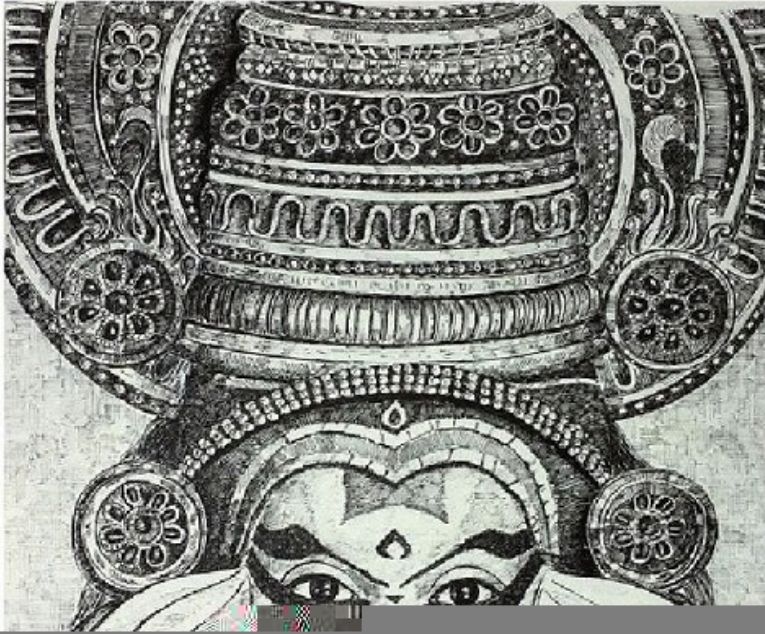
## Drawing

Section Id :	656445120
Section Number :	4
Section type :	Offline
Mandatory or Optional :	Mandatory
Number of Questions :	2
Number of Questions to be attempted :	2
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	656445120
Question Shuffling Allowed :	No

Question Number : 76 Question Id : 6564451655 Question Type : SUBJECTIVE Consider As Subjective : Yes Display Question Number : Yes

Correct Marks : 50

Use monochromatic colour rendering technique, light and shadow to represent its depth and intensity. Draw the sketch of the given image using the above instructions.



Question Number : 76 Question Id : 6564451655 Question Type : SUBJECTIVE Consider As Subjective : Yes Display Question Number : Yes  
Correct Marks : 50

नीचे दिये गए चित्र का रेखाचित्र तैयार करें। जिसमें केवल एकवर्णीय रंगों का उपयोग करते हुए रोशनी, छाया, गहराई और तीव्रता का उल्लेख हो।



Question Number : 77 Question Id : 6564451656 Question Type : SUBJECTIVE Consider As Subjective : Yes Display Question Number : Yes

Correct Marks : 50

Use five different types of crackers and make a beautiful 3D sculpture for Diwali mela. You can scale each cracker to any size of your choice. Usage of minimum 4 colours is compulsory.

OR

Draw a beautiful sketch of a basketball court where players are playing a match and audience are enjoying. Use suitable colours of your choice.

Question Number : 77 Question Id : 6564451656 Question Type : SUBJECTIVE Consider As Subjective : Yes Display Question Number : Yes

Correct Marks : 50

दीपावली की एक सुंदर 3-D प्रतिमा तैयार करे अलग-अलग प्रकार के पाँच पटाखो के साथ। उन पाँच पटाखो को अपने अनुसार कोई भी माप दे सकते है। प्रतिमा में चार प्रकार के रंगो का उपयोग करना अनिवार्य है।

### अथवा

बास्केट बाल खेल रहे खिलाडियों तथा उनके खेल को देख रहे दर्शकों का एक सुंदर चित्रण तैयार करे। और अपनी पसंद के रंगो से चित्र को रंगे।