

# National Testing Agency

<b>Question Paper Name :</b>	B ARCH E 1st Sep 2020 Shift 1
<b>Subject Name :</b>	B ARCH E
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<b>Share Answer Key With Delivery Engine :</b>	Yes
<b>Actual Answer Key :</b>	Yes

## B ARCH

<b>Group Number :</b>	1
<b>Group Id :</b>	40503696
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	180
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	400
<b>Is this Group for Examiner? :</b>	No

## Mathematics

<b>Section Id :</b>	405036326
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	25

Number of Questions to be attempted :	25
Section Marks :	100
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	405036657
Question Shuffling Allowed :	Yes

**Question Number : 1 Question Id : 4050369074 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Let a function,  $f : \mathbb{R} \rightarrow \mathbb{R}$  be defined by

$$f(x) = 1 + x|x| \text{ and let } \operatorname{sgn}(x) = \begin{cases} 1, & \text{if } x \geq 0 \\ -1, & \text{if } x < 0 \end{cases}$$

Then :

**Options :**

40503632951.  $f$  is not invertible

40503632952.  $f^{-1}(x) = \operatorname{sgn}(x - 1)\sqrt{|x - 1|}$

40503632953.  $f^{-1}(x) = \sqrt{|x - 1|}$

40503632954.  $f^{-1}(x) = \operatorname{sgn}(x)\sqrt{|x - 1|}$

**Question Number : 1 Question Id : 4050369074 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

माना फलन  $f : \mathbb{R} \rightarrow \mathbb{R}$ ,  $f(x) = 1 + x|x|$  द्वारा

परिभाषित है तथा माना  $\text{sgn}(x) = \begin{cases} 1, & \text{यदि } x \geq 0 \\ -1, & \text{यदि } x < 0 \end{cases}$

है, तो :

**Options :**

40503632951.  $f$  व्युत्क्रमणीय नहीं है

40503632952.  $f^{-1}(x) = \text{sgn}(x-1)\sqrt{|x-1|}$

40503632953.  $f^{-1}(x) = \sqrt{|x-1|}$

40503632954.  $f^{-1}(x) = \text{sgn}(x)\sqrt{|x-1|}$

**Question Number : 2 Question Id : 4050369075 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Let  $\alpha$  be a common root of the equations,  
 $x^2 - x - 12 = 0$  and  $\lambda x^2 + 10x + 3 = 0$   
(where  $\lambda$  is an integer). If  $\beta$  is the other  
root of the second equation, then the  
ordered pair  $(\lambda, \beta)$  is equal to :

**Options :**

40503632955.  $\left(-3, \frac{1}{3}\right)$

40503632956.  $\left(-3, -\frac{1}{3}\right)$

40503632957.  $\left(3, \frac{1}{3}\right)$

40503632958.  $\left(3, -\frac{1}{3}\right)$

**Question Number : 2 Question Id : 4050369075 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

माना समीकरणों  $x^2 - x - 12 = 0$  तथा  $\lambda x^2 + 10x + 3 = 0$  (जहाँ  $\lambda$  एक पूर्णांक है) का एक उभयनिष्ठ मूल  $\alpha$  है। यदि दूसरे समीकरण का दूसरा मूल  $\beta$  है, तो क्रमित युग्म  $(\lambda, \beta)$  बराबर है :

**Options :**

40503632955.  $\left(-3, \frac{1}{3}\right)$

40503632956.  $\left(-3, -\frac{1}{3}\right)$

40503632957.  $\left(3, \frac{1}{3}\right)$

40503632958.  $\left(3, -\frac{1}{3}\right)$

**Question Number : 3 Question Id : 4050369076 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

If  $z = -1 + i\sqrt{2}$ , then which one of the following is not true ?

**Options :**

40503632959.  $\operatorname{Re}(z^4) + \operatorname{Re}(z^3) = -2$

40503632960.  $\operatorname{Im}(z^4) + \operatorname{Im}(z^3) = 5\sqrt{2}$

40503632961.  $\operatorname{Im}(z^4) - \operatorname{Re}(z^3) = 4\sqrt{2} - 5$

40503632962.  $\operatorname{Re}(z^4) - \operatorname{Im}(z^3) = \sqrt{2} - 7$

**Question Number : 3 Question Id : 4050369076 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

यदि  $z = -1 + i\sqrt{2}$  है, तो निम्न में से कौन सा सत्य नहीं है ?

**Options :**

40503632959.  $\operatorname{Re}(z^4) + \operatorname{Re}(z^3) = -2$

40503632960.  $\text{Im}(z^4) + \text{Im}(z^3) = 5\sqrt{2}$

40503632961.  $\text{Im}(z^4) - \text{Re}(z^3) = 4\sqrt{2} - 5$

40503632962.  $\text{Re}(z^4) - \text{Im}(z^3) = \sqrt{2} - 7$

**Question Number : 4 Question Id : 4050369077 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

For  $\theta \in (0, \pi/2)$ ,  $\theta \in (\pi, 2\pi)$  and  $\beta \in \mathbb{R}$ , the value of the determinant

$$\begin{vmatrix} \cos 2\alpha & \cos(\alpha + \theta) & -\sin(\alpha + \theta) \\ \sin \alpha & \sin \theta & \cos \theta \\ \beta \cos \alpha & -\cos \theta & \sin \theta \end{vmatrix} :$$

**Options :**

40503632963. is independent of  $\alpha$ .

40503632964. is independent of  $\beta$ .

40503632965. is independent of  $\theta$ .

40503632966. depends on all  $\alpha$ ,  $\beta$  and  $\theta$ .

**Question Number : 4 Question Id : 4050369077 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

$\theta \in (0, \pi/2)$ ,  $\theta \in (\pi, 2\pi)$  तथा  $\beta \in \mathbf{R}$  के लिए सारणिक

$$\begin{vmatrix} \cos 2\alpha & \cos(\alpha + \theta) & -\sin(\alpha + \theta) \\ \sin \alpha & \sin \theta & \cos \theta \\ \beta \cos \alpha & -\cos \theta & \sin \theta \end{vmatrix} \text{ का मान :}$$

**Options :**

40503632963.  $\alpha$  से स्वतन्त्र है।

40503632964.  $\beta$  से स्वतन्त्र है।

40503632965.  $\theta$  से स्वतन्त्र है।

40503632966.  $\alpha$ ,  $\beta$  तथा  $\theta$  सब पर निर्भर करता है।

**Question Number : 5 Question Id : 4050369078 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

$$\text{Let } A = \begin{pmatrix} \alpha & 1 & 2 \\ 1 & 2 & 3 \\ 3 & 1 & 1 \end{pmatrix}, \alpha \in \mathbf{R} \text{ and } B = [b_{ij}]_{3 \times 3}$$

such that  $AB = rI$ ,  $r \neq 0$  in  $\mathbf{R}$ . If

$$b_{32} = -\frac{3}{2}r \text{ and } |\text{adj}B| = r^5, \text{ then } |\text{adj}(AB)|$$

equals :

**Options :**

40503632967.  $4^{12}$

40503632968.  $2^{12}$

40503632969.  $2^6$

40503632970.  $4^8$

**Question Number : 5 Question Id : 4050369078 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

माना  $A = \begin{pmatrix} \alpha & 1 & 2 \\ 1 & 2 & 3 \\ 3 & 1 & 1 \end{pmatrix}$ ,  $\alpha \in \mathbb{R}$  तथा  $B = [b_{ij}]_{3 \times 3}$  इस

प्रकार हैं कि  $AB = rI$ ,  $r \neq 0$  ( $r \in \mathbb{R}$ )। यदि

$b_{32} = -\frac{3}{2}r$  तथा  $|\text{adj}B| = r^5$  हैं, तो  $|\text{adj}(AB)|$

बराबर है :

**Options :**

40503632967.  $4^{12}$

40503632968.  $2^{12}$

40503632969.  $2^6$

40503632970.  $4^8$

**Question Number : 6 Question Id : 4050369079 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**



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

Let  $a_1, a_2, a_3, a_4$  and  $a_5$  be in A.P. with the common difference greater than 2. If

$$\sum_{i=1}^5 a_i = 30 \text{ and } a_1 \cdot a_2 \cdot a_3 \cdot a_4 \cdot a_5 = 3840, \text{ then}$$

$a_1 \cdot a_5$  is equal to :

**Options :**

40503632971. 82

40503632972. -128

40503632973. 128

40503632974. -82

**Question Number : 6 Question Id : 4050369079 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

माना  $a_1, a_2, a_3, a_4$  तथा  $a_5$  एक समान्तर श्रेणी में हैं

जिसका सार्वअन्तर 2 से अधिक है। यदि  $\sum_{i=1}^5 a_i = 30$

तथा  $a_1 \cdot a_2 \cdot a_3 \cdot a_4 \cdot a_5 = 3840$  हैं, तो  $a_1 \cdot a_5$  बराबर है :

**Options :**

40503632971. 82

40503632972. -128

40503632973. 128

40503632974. -82

**Question Number : 7 Question Id : 4050369080 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Let the functions  $f$  and  $g$  be defined as

$$f(x) = 2\cos|x-2| + 3|x|\sin|x| \text{ and } g(x) = x^5 + x.$$

If  $S$  be the set of points where the function  $(f \circ g)(x)$  is not differentiable, then  $S$  is equal to :

**Options :**

40503632975.  $\{1\}$

40503632976.  $\{0\}$

40503632977.  $\{0, 1\}$

40503632978.  $\phi$  (an empty set)

**Question Number : 7 Question Id : 4050369080 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

माना फलन  $f$  तथा  $g$  निम्न प्रकार से परिभाषित हैं :  
 $f(x) = 2\cos|x - 2| + 3|x| \sin|x|$  तथा  $g(x) = x^5 + x$ .  
यदि उन बिन्दुओं, जहाँ  $(f \circ g)(x)$  अवकलनीय नहीं है,  
का समुच्चय  $S$  है, तो  $S$  बराबर है :

**Options :**

40503632975.  $\{1\}$

40503632976.  $\{0\}$

40503632977.  $\{0, 1\}$

40503632978.  $\phi$  (एक रिक्त समुच्चय)

**Question Number : 8 Question Id : 4050369081 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Let  $f$  be a twice differentiable function on  $\mathbf{R}$  such that  $f(0) = 4$  and the function,

$g(x) = \frac{1}{2}f^2(x) + 3x^3 - 5$  is monotonically

increasing in  $\mathbf{R}$ . Then  $f(1)$  cannot be :

**Options :**

40503632979.  $2\sqrt{3}$

40503632980.  $3\sqrt{2}$

40503632981. 4

40503632982.  $2\sqrt{2}$

**Question Number : 8 Question Id : 4050369081 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

माना  $\mathbb{R}$  पर एक फलन  $f$  दो बार अवकलनीय है, जिसके लिए  $f(0) = 4$  है तथा फलन

$$g(x) = \frac{1}{2}f^2(x) + 3x^3 - 5, \mathbb{R} \text{ में निरन्तर वर्धमान है।}$$

तो  $f(1)$  नहीं हो सकता :

**Options :**

40503632979.  $2\sqrt{3}$

40503632980.  $3\sqrt{2}$

40503632981. 4

40503632982.  $2\sqrt{2}$

**Question Number : 9 Question Id : 4050369082 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Let  $f(x) = (2x^2 - 9x + 11) \cdot e^x, -\infty < x < \infty.$

Then  $f$  has :

**Options :**

40503632983. a local maxima at  $x = \frac{1}{2}$  and a local minima at  $x = 2$ .

40503632984. a local minima at  $x = \frac{1}{2}$  and a local maxima at  $x = 2$ .

40503632985. neither a local maxima nor a local minima at  $x = \frac{1}{2}$ .

40503632986. neither a local maxima nor a local minima at  $x = 2$ .

**Question Number : 9 Question Id : 4050369082 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

माना  $f(x) = (2x^2 - 9x + 11) \cdot e^x$ ,  $-\infty < x < \infty$  है,

तो  $f$  का :

**Options :**

40503632983.  $x = \frac{1}{2}$  एक स्थानीय उच्चिष्ठ है तथा  $x = 2$  एक स्थानीय निम्ननिष्ठ है।

$x = \frac{1}{2}$  एक स्थानीय निम्ननिष्ठ है तथा  $x=2$

40503632984. एक स्थानीय उच्चिष्ठ है।

$x = \frac{1}{2}$  न तो स्थानीय उच्चिष्ठ है न ही स्थानीय

40503632985. निम्ननिष्ठ है।

$x=2$  न तो स्थानीय उच्चिष्ठ है न ही स्थानीय  
निम्ननिष्ठ है।

40503632986.

**Question Number : 10 Question Id : 4050369083 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

If for  $x > 0$ ,

$$\int \frac{e^{\sqrt{x}} \sin\left(\frac{\pi}{4} + \sqrt{x}\right)}{\sqrt{x}} dx = e^{\sqrt{x}} \cdot f(x) + C,$$

where C is a constant of integration, then  
 $f(x)$  is equal to :

**Options :**

40503632987.  $\frac{3}{\sqrt{2}} \cos\sqrt{x}$

40503632988.  $\frac{2\sqrt{2}}{3} \sin\sqrt{x}$

40503632989.  $\sqrt{2} \sin\sqrt{x}$

40503632990.  $\sqrt{2} \cos\sqrt{x}$

**Question Number : 10 Question Id : 4050369083 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

यदि  $x > 0$  के लिए

$$\int \frac{e^{\sqrt{x}} \sin\left(\frac{\pi}{4} + \sqrt{x}\right)}{\sqrt{x}} dx = e^{\sqrt{x}} \cdot f(x) + C,$$

जहाँ  $C$  एक समाकलन अचर है, तो  $f(x)$  बराबर है :

**Options :**

40503632987.  $\frac{3}{\sqrt{2}} \cos\sqrt{x}$

40503632988.  $\frac{2\sqrt{2}}{3} \sin\sqrt{x}$

40503632989.  $\sqrt{2} \sin\sqrt{x}$

40503632990.  $\sqrt{2} \cos\sqrt{x}$

**Question Number : 11 Question Id : 4050369084 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

If  $y(x) = \int_{\pi^2/16}^{x^2} \frac{\sin x \sin \sqrt{\theta}}{1 + \cos^2 \sqrt{\theta}} d\theta$ , then

$y'\left(\frac{\pi}{4}\right)$  is equal to :

Options :

40503632991.  $\frac{\pi}{3\sqrt{2}}$

40503632992.  $\frac{\pi}{12}$

40503632993.  $\frac{\pi}{6}$

40503632994.  $\frac{\pi}{3}$

Question Number : 11 Question Id : 4050369084 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

यदि  $y(x) = \int_{\pi^2/16}^{x^2} \frac{\sin x \sin \sqrt{\theta}}{1 + \cos^2 \sqrt{\theta}} d\theta$  है, तो

$y'\left(\frac{\pi}{4}\right)$  बराबर है :

Options :

40503632991.  $\frac{\pi}{3\sqrt{2}}$



40503632992.  $\frac{\pi}{12}$

40503632993.  $\frac{\pi}{6}$

40503632994.  $\frac{\pi}{3}$

**Question Number : 12 Question Id : 4050369085 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The area (in sq. units) of the region  $\{(x, y) \in \mathbb{R}^2 : 2|x| + |y| \leq 2 \text{ and } x + y \geq 1\}$  is :

**Options :**

40503632995.  $\frac{1}{3}$

40503632996.  $\frac{2}{3}$

40503632997.  $\frac{1}{2}$

40503632998.  $\frac{4}{3}$

**Question Number : 12 Question Id : 4050369085 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

क्षेत्र  $\{(x, y) \in \mathbb{R}^2 : 2|x| + |y| \leq 2 \text{ तथा } x + y \geq 1\}$  का क्षेत्रफल (वर्ग इकाइयों में) है :

**Options :**

40503632995.  $\frac{1}{3}$

40503632996.  $\frac{2}{3}$

40503632997.  $\frac{1}{2}$

40503632998.  $\frac{4}{3}$

**Question Number : 13 Question Id : 4050369086 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Let ABC be a triangle such that the vertex A has coordinates  $(-3, 1)$ . If the equation of the median through B be  $2x + y - 3 = 0$  and the equation of the bisector of angle C be  $7x - 4y - 1 = 0$ , then the equation of the line BC is :

**Options :**

40503632999.  $15x + y = 50$

40503633000.  $4x - y = 7$

40503633001.  $18x - y = 49$

40503633002.  $7x - 3y = 6$

**Question Number : 13 Question Id : 4050369086 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

माना ABC एक त्रिभुज है जिसके शीर्ष A के निर्देशांक  $(-3, 1)$  हैं। यदि B से खींची गई माध्यिका का समीकरण  $2x + y - 3 = 0$  है तथा कोण C के समद्विभाजक का समीकरण  $7x - 4y - 1 = 0$  है, तो रेखा BC का समीकरण है :

**Options :**

40503632999.  $15x + y = 50$

40503633000.  $4x - y = 7$

40503633001.  $18x - y = 49$

40503633002.  $7x - 3y = 6$

**Question Number : 14 Question Id : 4050369087 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

If the ellipse centered at the origin has a focus at  $(0, 3)$  and the corresponding directrix is  $y=9$ , then which one of the following is not true for this ellipse ?

Options :

40503633003. Length of its minor axis is  $6\sqrt{2}$

40503633004. Length of its latus rectum is  $4\sqrt{3}$

40503633005. Point  $(\sqrt{6}, 2\sqrt{3})$  lies on it

40503633006. Point  $(\sqrt{6}, -3\sqrt{2})$  lies on it

Question Number : 14 Question Id : 4050369087 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

यदि एक दीर्घवृत्त, जिसका केन्द्र मूल बिन्दु पर है, की एक नाभि  $(0, 3)$  पर है तथा संगत नियता  $y=9$  है, तो इस दीर्घवृत्त के लिए निम्न में से कौन सा एक सत्य नहीं है?

Options :

40503633003. इसके लघु अक्ष की लम्बाई  $6\sqrt{2}$  है।

40503633004. इसकी नाभिलम्ब जीवा की लम्बाई  $4\sqrt{3}$  है।

40503633005. बिन्दु  $(\sqrt{6}, 2\sqrt{3})$  इस पर स्थित है।

40503633006. बिन्दु  $(\sqrt{6}, -3\sqrt{2})$  इस पर स्थित है।

**Question Number : 15 Question Id : 4050369088 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

If a hyperbola has length of its transverse axis  $=\sqrt{2}$  and it has the same foci as that of the ellipse,  $4x^2 + 3y^2 = 24$ , then this hyperbola also passes through the point whose coordinates are :

**Options :**

40503633007.  $\left(2\sqrt{3}, \frac{3}{\sqrt{2}}\right)$

40503633008.  $\left(2\sqrt{3}, \frac{3}{2}\right)$

40503633009.  $\left(\frac{1}{\sqrt{6}}, 1\right)$

40503633010.  $\left(\frac{1}{\sqrt{6}}, \frac{\sqrt{2}}{3}\right)$

Question Number : 15 Question Id : 4050369088 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

यदि एक अतिपरवलय के अनुप्रस्थ अक्ष की लम्बाई  $\sqrt{2}$  है तथा इसकी नाभियाँ वही हैं जो दीर्घवृत्त  $4x^2 + 3y^2 = 24$  की हैं, तो यह अतिपरवलय उस बिन्दु से भी होकर जाता है, जिसके निर्देशांक हैं :

Options :

40503633007.  $\left(2\sqrt{3}, \frac{3}{\sqrt{2}}\right)$

40503633008.  $\left(2\sqrt{3}, \frac{3}{2}\right)$

40503633009.  $\left(\frac{1}{\sqrt{6}}, 1\right)$

40503633010.  $\left(\frac{1}{\sqrt{6}}, \frac{\sqrt{2}}{3}\right)$

Question Number : 16 Question Id : 4050369089 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Let P be the point of intersection of the plane,  $4x - 6y + 14z = 57$  with the line joining the points A(2, 3, 5) and B(1, -1, 4). If  $BP = \lambda AP$ , then the value of  $\lambda$  is :

Options :

40503633011.  $\frac{1}{9}$

40503633012. 9

40503633013.  $\frac{1}{3}$

40503633014. 3

**Question Number : 16 Question Id : 4050369089 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

माना समतल  $4x - 6y + 14z = 57$  का बिन्दुओं  $A(2, 3, 5)$  तथा  $B(1, -1, 4)$  को मिलाने वाली रेखा से प्रतिच्छेदन बिन्दु  $P$  है। यदि  $BP = \lambda AP$ , तो  $\lambda$  का मान है :

**Options :**

40503633011.  $\frac{1}{9}$

40503633012. 9

40503633013.  $\frac{1}{3}$

40503633014. 3

**Question Number : 17 Question Id : 4050369090 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

A six faced biased dice is so loaded that in any of its toss getting any of even scores is equally likely and the probability of getting an even score is three times the probability of getting an odd score. This dice is tossed repeatedly until a six is obtained. If  $X$  denotes the number of tosses required, then  $P(X < 4)$  is :

**Options :**

40503633015.  $\frac{19}{3^3}$

40503633016.  $\frac{37}{4^3}$

40503633017.  $\frac{61}{4^3}$

40503633018.  $\frac{397}{(12)^3}$

**Question Number : 17 Question Id : 4050369090 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



एक अभिनत षट्फलक पासा इस प्रकार का है कि इसके किसी उछाल में किसी भी सम संख्या का आना समप्रायिक (equally likely) है तथा इस पर सम संख्या के आने की प्रायिकता विषम संख्या के आने की प्रायिकता से तीन गुना है। इस पासे को तब तक उछाला जाता है जब तक कि एक छः न प्राप्त हो जाये। यदि  $X$ , पासे को उछालने की आवश्यक संख्या को दर्शाता है, तो  $P(X < 4)$  है :

Options :

40503633015.  $\frac{19}{3^3}$

40503633016.  $\frac{37}{4^3}$

40503633017.  $\frac{61}{4^3}$

40503633018.  $\frac{397}{(12)^3}$

**Question Number : 18 Question Id : 4050369091 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

If  $2\sin x - \cos 2x = 1$ , then :

Options :

40503633019.  $\cos^4 x - \cos^2 x = 3 - \sqrt{5}$

40503633020.  $2(\cos^4x - \cos^2x) = -1$

40503633021.  $\sin^4x - \sin^2x = 2 - \sqrt{5}$

40503633022.  $2(\sin^4x - \sin^2x) = 1$

**Question Number : 18 Question Id : 4050369091 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

यदि  $2\sin x - \cos 2x = 1$  है, तो :

**Options :**

40503633019.  $\cos^4x - \cos^2x = 3 - \sqrt{5}$

40503633020.  $2(\cos^4x - \cos^2x) = -1$

40503633021.  $\sin^4x - \sin^2x = 2 - \sqrt{5}$

40503633022.  $2(\sin^4x - \sin^2x) = 1$

**Question Number : 19 Question Id : 4050369092 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Let  $\vec{a}$ ,  $\vec{b}$ ,  $\vec{c}$  be any three non-coplanar vectors. If the points

$$A\left(-2\vec{a} + 3\vec{b} + 5\vec{c}\right),$$

$$B\left(\vec{a} + 2\vec{b} + 3\vec{c}\right) \text{ and } C\left(7\vec{a} - \lambda\vec{c}\right) \text{ are}$$

collinear, then  $\lambda$  is equal to :

**Options :**

40503633023.  $1$

40503633024.  $-1$

40503633025.  $2$

40503633026.  $-2$

**Question Number : 19 Question Id : 4050369092 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

माना  $\vec{a}$ ,  $\vec{b}$ ,  $\vec{c}$  कोई तीन असमतलीय (non-coplanar) सदिश हैं। यदि बिन्दु

$$A(-2\vec{a} + 3\vec{b} + 5\vec{c}),$$

$$B(\vec{a} + 2\vec{b} + 3\vec{c}) \text{ तथा } C(7\vec{a} - \lambda\vec{c})$$

सरेख हैं, तो  $\lambda$  बराबर है :

**Options :**

40503633023. 1

40503633024. -1

40503633025. 2

40503633026. -2

**Question Number : 20 Question Id : 4050369093 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Which one of the following is a tautology ?

**Options :**

40503633027.  $\sim (p \rightarrow q) \rightarrow q$

40503633028.  $\sim (p \rightarrow q) \leftrightarrow \sim q$

40503633029.  $\sim (p \rightarrow q) \leftrightarrow p$

40503633030.  $\sim (p \rightarrow q) \rightarrow p$

**Question Number : 20 Question Id : 4050369093 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

निम्न में से कौन सी एक पुनरुक्ति है?

**Options :**

40503633027.  $\sim (p \rightarrow q) \rightarrow q$

40503633028.  $\sim (p \rightarrow q) \leftrightarrow \sim q$

40503633029.  $\sim (p \rightarrow q) \leftrightarrow p$

40503633030.  $\sim (p \rightarrow q) \rightarrow p$

**Sub-Section Number :**

2

**Sub-Section Id :**

405036658

**Question Shuffling Allowed :**

Yes

**Question Number : 21 Question Id : 4050369094 Question Type : SA Display Question Number : Yes Correct Marks : 4 Wrong Marks : 0**

If the sum of all possible 4 digit numbers formed using digits 1, 2, 3, 4 without repetition, is 1111k, then k is equal to

\_\_\_\_\_.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.002

**Question Number :** 21 **Question Id :** 4050369094 **Question Type :** SA **Display Question Number :** Yes

**Correct Marks :** 4 **Wrong Marks :** 0

यदि अंकों 1, 2, 3, 4 का प्रयोग करके, अंकों को बिना दोहराए, बनाई गयी सभी संभव 4 अंकों की संख्याओं का योगफल  $1111k$  है, तो  $k$  बराबर है \_\_\_\_\_।

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.002

**Question Number :** 22 **Question Id :** 4050369095 **Question Type :** SA **Display Question Number :** Yes

**Correct Marks :** 4 **Wrong Marks :** 0

If  $x = \operatorname{cosec}\theta - \sin\theta$  and  $y = \operatorname{cosec}^5\theta - \sin^5\theta$ ,

$0 < \theta < \frac{\pi}{2}$ , then  $(x^2 + 4) \left(\frac{dy}{dx}\right)^2 - 25y^2$

is equal to \_\_\_\_\_.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

5 to 5.002

Question Number : 22 Question Id : 4050369095 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 0

यदि  $x = \operatorname{cosec}\theta - \sin\theta$  तथा  $y = \operatorname{cosec}^5\theta - \sin^5\theta$ ,

$$0 < \theta < \frac{\pi}{2} \text{ हैं, तो } (x^2 + 4) \left( \frac{dy}{dx} \right)^2 - 25y^2$$

बराबर है \_\_\_\_\_ ।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

5 to 5.002

Question Number : 23 Question Id : 4050369096 Question Type : SA Display Question Number : Yes

Correct Marks : 4 Wrong Marks : 0

Let the function  $f : \mathbb{N} \rightarrow \mathbb{R}$  satisfy

$f(x+y) = f(x) \cdot f(y)$  for all  $x, y \in \mathbb{N}$  and  $f(1) = 2$ .

If  $\sum_{k=1}^{50} f(4+k) = \lambda(2^\beta - 1)$ , then  $\lambda + \beta$  is

equal to \_\_\_\_\_.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.002

**Question Number : 23 Question Id : 4050369096 Question Type : SA Display Question Number : Yes**

**Correct Marks : 4 Wrong Marks : 0**

माना फलन  $f : \mathbb{N} \rightarrow \mathbb{R}$ , सभी  $x, y \in \mathbb{N}$  के लिए

$f(x+y) = f(x) \cdot f(y)$  को सन्तुष्ट करता है तथा  $f(1) = 2$

है। यदि  $\sum_{k=1}^{50} f(4+k) = \lambda(2^\beta - 1)$  है, तो  $\lambda + \beta$

बराबर है \_\_\_\_\_।

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.002

**Question Number : 24 Question Id : 4050369097 Question Type : SA Display Question Number : Yes**

**Correct Marks : 4 Wrong Marks : 0**

Let the circle,  $(x-a)^2 + (y-b)^2 = 8$  and the parabola,  $y^2 = 4x$  have a common tangent at the point  $P(1, 2)$ . If  $C$  is the centre of the circle and  $S$  is the focus of the parabola, then

the area (in sq. units) of  $\Delta CPS$  is equal to \_\_\_\_\_.

**Response Type :** Numeric



**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

5 to 5.002

**Question Number : 24 Question Id : 4050369097 Question Type : SA Display Question Number : Yes**

**Correct Marks : 4 Wrong Marks : 0**

माना वृत्त,  $(x - a)^2 + (y - b)^2 = 8$  तथा परवलय  $y^2 = 4x$  की बिन्दु  $P(1, 2)$  पर एक उभयनिष्ठ स्पर्श रेखा है। यदि वृत्त का केन्द्र  $C$  है तथा परवलय की नाभि  $S$  है, तो  $\Delta CPS$  का क्षेत्रफल (वर्ग इकाइयों में) बराबर है \_\_\_\_\_।

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

5 to 5.002

**Question Number : 25 Question Id : 4050369098 Question Type : SA Display Question Number : Yes**

**Correct Marks : 4 Wrong Marks : 0**

If  $y = y(x)$  is a solution of the differential equation,  $x \frac{dy}{dx} = y(2 - 3xy)$ ,  $x > 0$  with  $y(1) = 1$ , then  $y\left(\frac{1}{4}\right)$  is equal to \_\_\_\_\_.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

5 to 5.002

**Question Number : 25 Question Id : 4050369098 Question Type : SA Display Question Number : Yes**

**Correct Marks : 4 Wrong Marks : 0**

यदि अवकल समीकरण  $x \frac{dy}{dx} = y(2 - 3xy), x > 0$

जिसके लिए  $y(1) = 1$  है, का हल  $y = y(x)$  है, तो

$y\left(\frac{1}{4}\right)$  बराबर है \_\_\_\_\_।

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

5 to 5.002

## Aptitude Test

<b>Section Id :</b>	405036327
<b>Section Number :</b>	2
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200

**Display Number Panel :**

Yes

**Group All Questions :**

Yes

**Mark As Answered Required? :**

Yes

**Sub-Section Number :**

1

**Sub-Section Id :**

405036659

**Question Shuffling Allowed :**

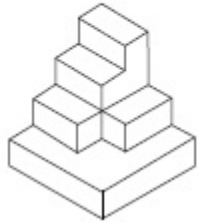
Yes

**Question Number : 26 Question Id : 4050369099 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

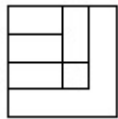
**Correct Marks : 4 Wrong Marks : 1**

The 3 - D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

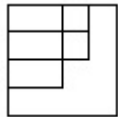


**Options :**

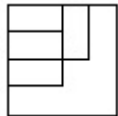
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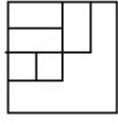
40503633037.



40503633038.

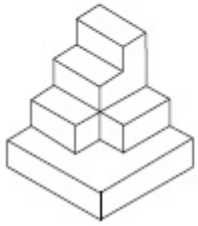


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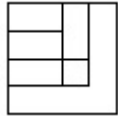
**Question Number : 26 Question Id : 4050369099 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। इसका सही ऊपरी दृश्य, उत्तर आकृतियों में से पहचानिये।

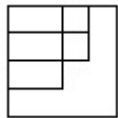


**Options :**

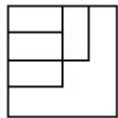
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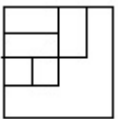
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40503633038.

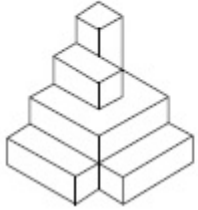


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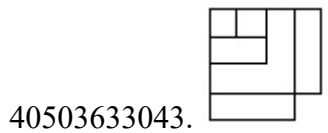
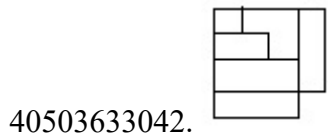
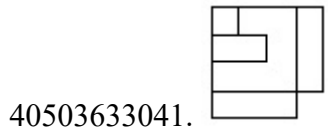
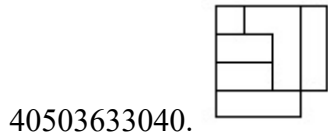


**Question Number : 27 Question Id : 4050369100 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The 3 - D figure shows the view of an object. Identify the correct top view from amongst the answer figures.



**Options :**

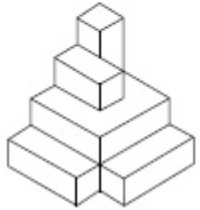


**Question Number : 27 Question Id : 4050369100 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**

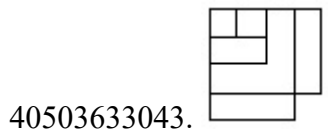
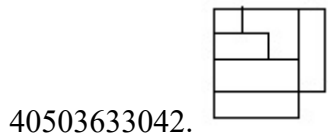
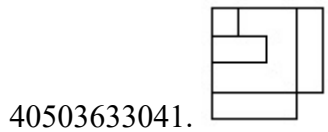
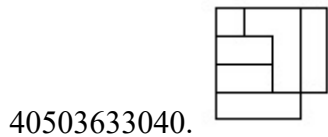
**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। इसका सही ऊपरी दृश्य, उत्तर आकृतियों में से पहचानिये।



**Options :**

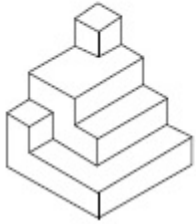


**Question Number : 28 Question Id : 4050369101 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**

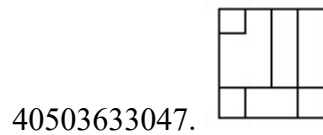
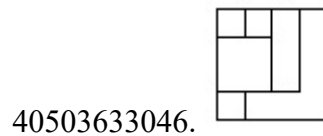
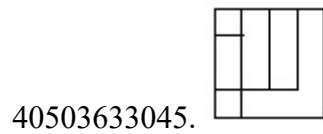
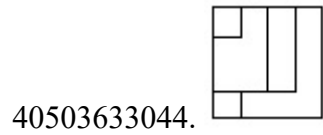
**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

The 3 - D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

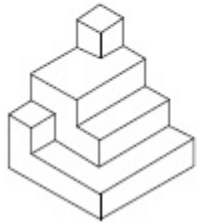


Options :

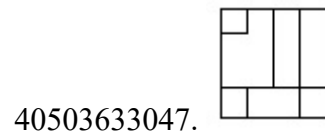
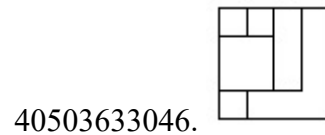
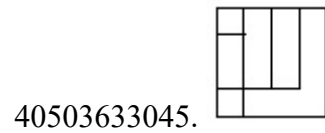
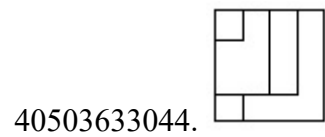


Question Number : 28 Question Id : 4050369101 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। इसका सही ऊपरी दृश्य, उत्तर आकृतियों में से पहचानिये।



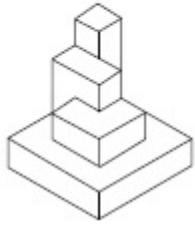
Options :



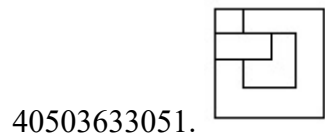
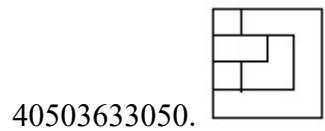
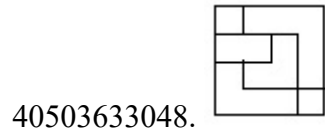
Question Number : 29 Question Id : 4050369102 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1



The 3 - D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

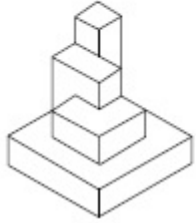


Options :

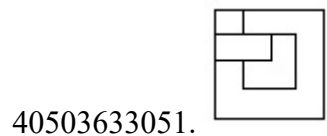
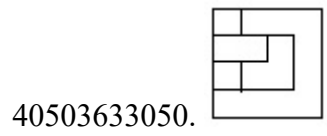
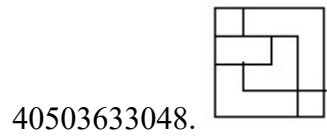


**Question Number : 29 Question Id : 4050369102 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। इसका सही ऊपरी दृश्य, उत्तर आकृतियों में से पहचानिये।

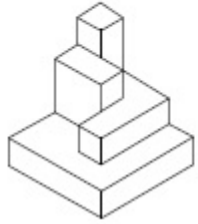


Options :

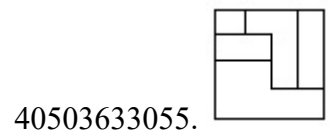
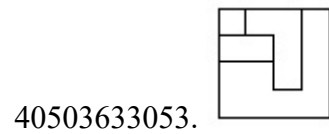
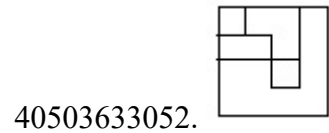


Question Number : 30 Question Id : 4050369103 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

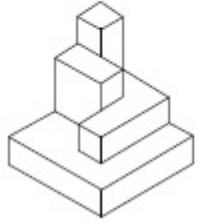


Options :

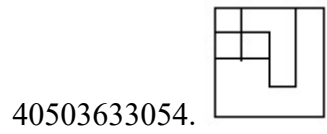
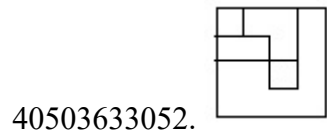


**Question Number : 30 Question Id : 4050369103 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। इसका सही ऊपरी दृश्य, उत्तर आकृतियों में से पहचानिये।

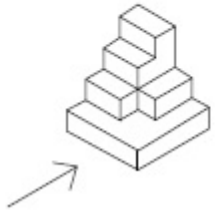


Options :

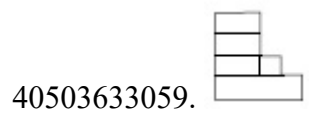
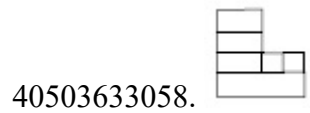
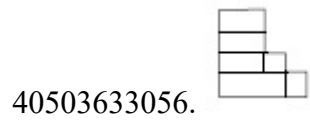


Question Number : 31 Question Id : 4050369104 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

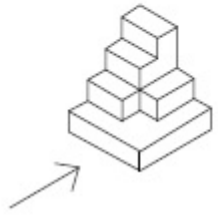


Options :

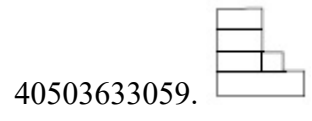
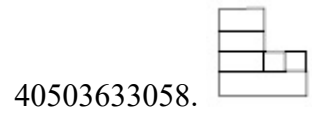
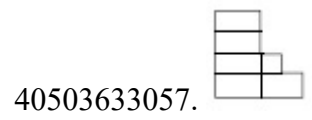
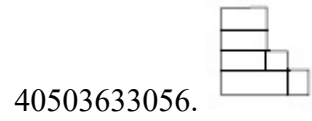


**Question Number : 31 Question Id : 4050369104 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।

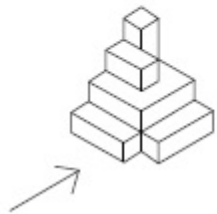


Options :

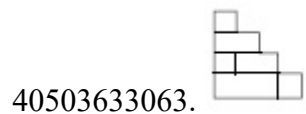
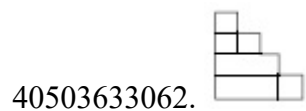
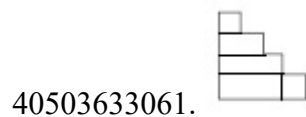
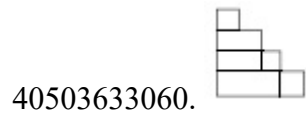


Question Number : 32 Question Id : 4050369105 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

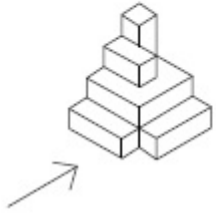


Options :

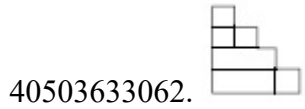
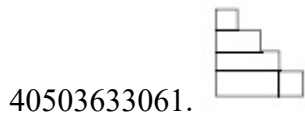
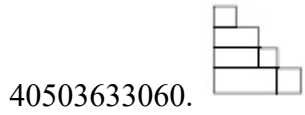


**Question Number : 32 Question Id : 4050369105 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।



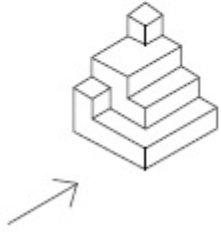
Options :



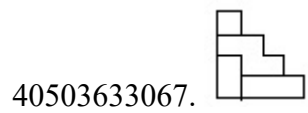
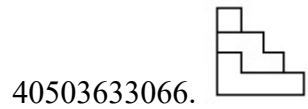
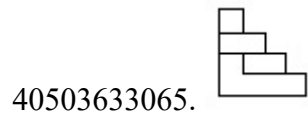
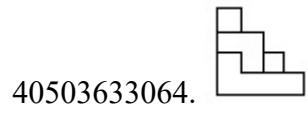
Question Number : 33 Question Id : 4050369106 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1



The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

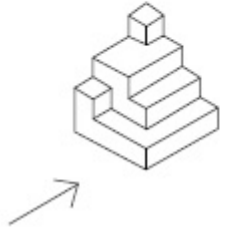


Options :

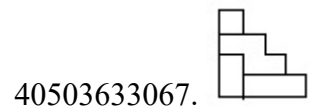
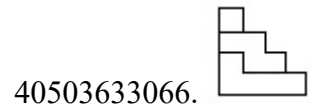
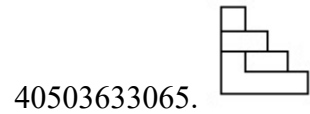
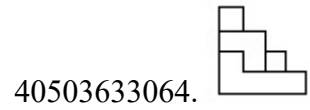


**Question Number : 33 Question Id : 4050369106 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।

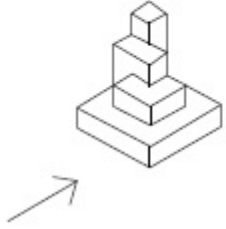


Options :

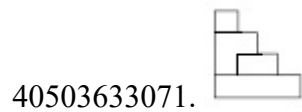
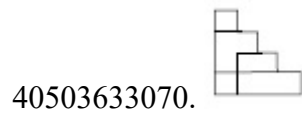
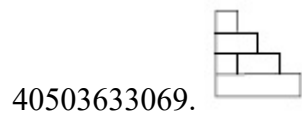
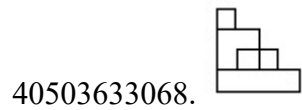


Question Number : 34 Question Id : 4050369107 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

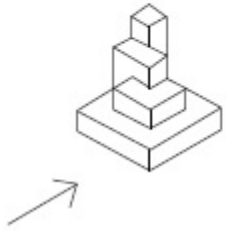


Options :

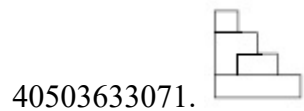
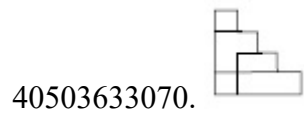
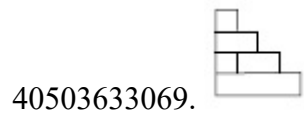
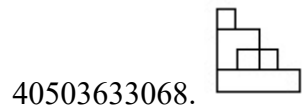


**Question Number : 34 Question Id : 4050369107 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।

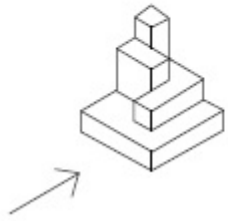


Options :

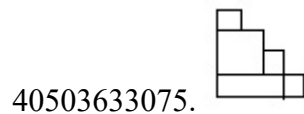
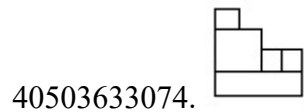
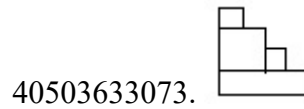
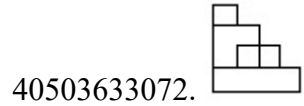


Question Number : 35 Question Id : 4050369108 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.



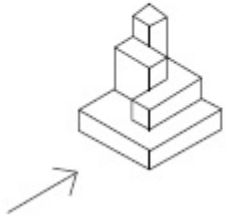
Options :



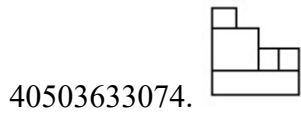
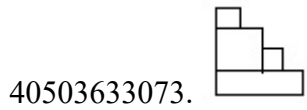
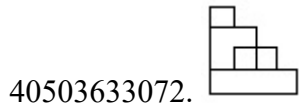
Question Number : 35 Question Id : 4050369108 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।

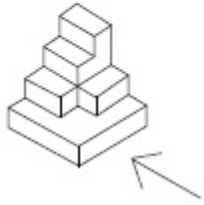


Options :

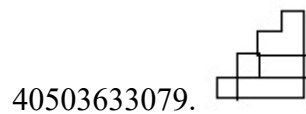
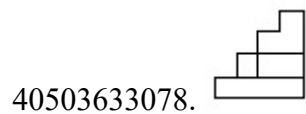
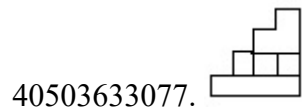
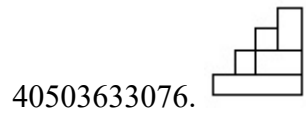


Question Number : 36 Question Id : 4050369109 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

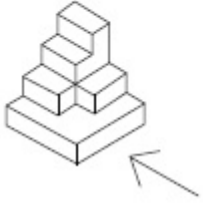


Options :

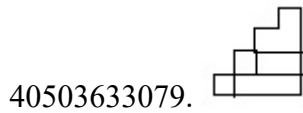
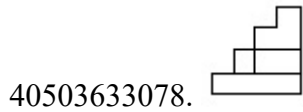
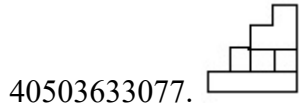
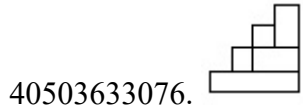


**Question Number : 36 Question Id : 4050369109 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।



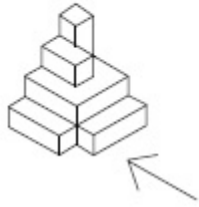
**Options :**



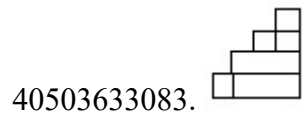
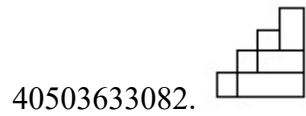
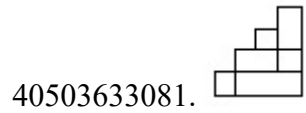
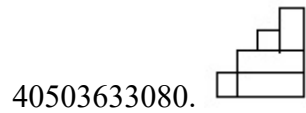
**Question Number : 37 Question Id : 4050369110 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

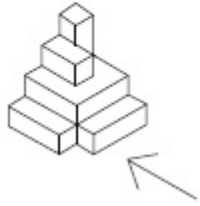


Options :

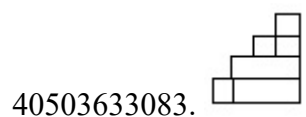
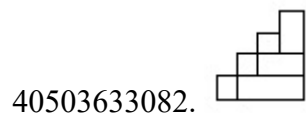
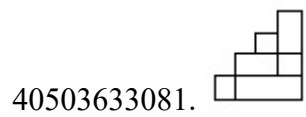
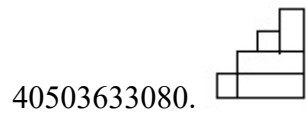


**Question Number : 37 Question Id : 4050369110 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।

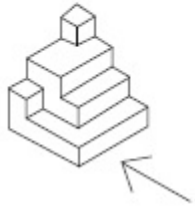


Options :

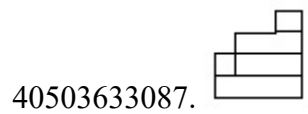
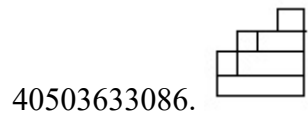
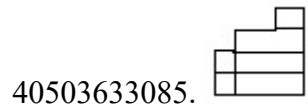


Question Number : 38 Question Id : 4050369111 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

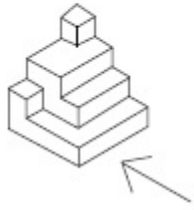


Options :

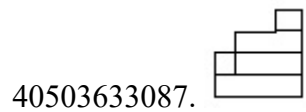
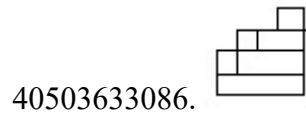
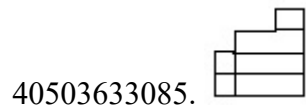


Question Number : 38 Question Id : 4050369111 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।

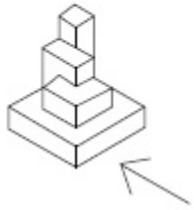


Options :

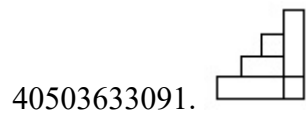
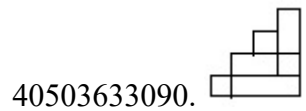
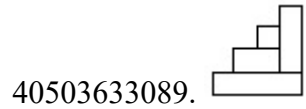
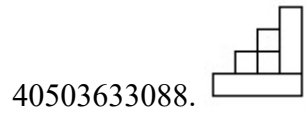


Question Number : 39 Question Id : 4050369112 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

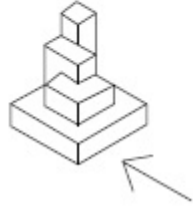


**Options :**

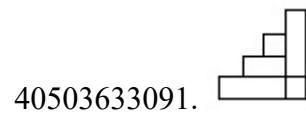
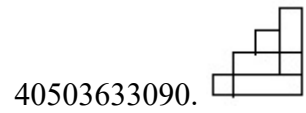
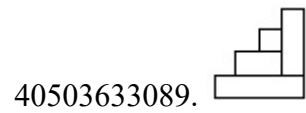
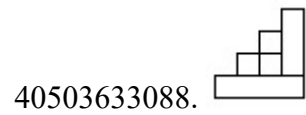


**Question Number : 39 Question Id : 4050369112 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।

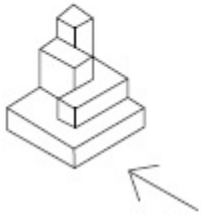


Options :

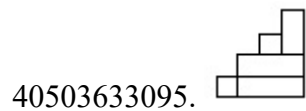
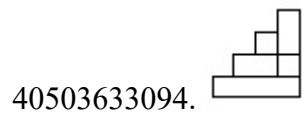
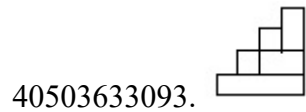
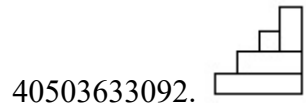


Question Number : 40 Question Id : 4050369113 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

The 3 - D figure shows the view of an object. Identify the correct view in the direction of the arrow, from amongst the answer figures.

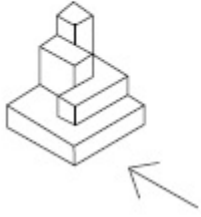


Options :

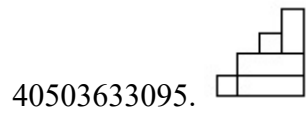
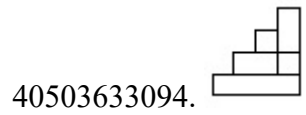
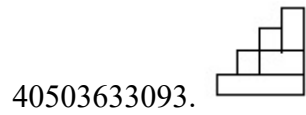
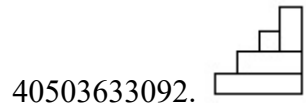


**Question Number : 40 Question Id : 4050369113 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3 - D प्रश्न आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, इसके सम्मुख दृश्य को उत्तर आकृतियों में से पहचानिये।



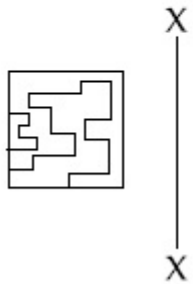
**Options :**



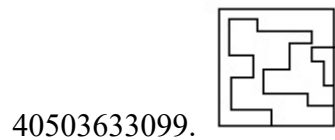
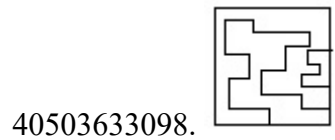
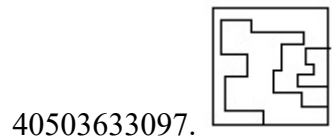
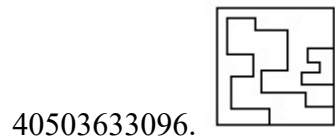
**Question Number : 41 Question Id : 4050369114 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Which one of the answer figures is the correct mirror image of the problem figure with respect to X - X?

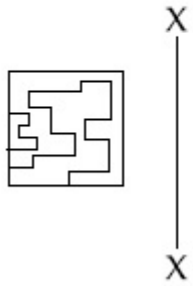


Options :

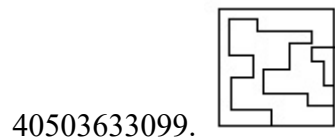
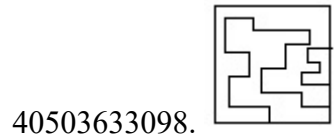
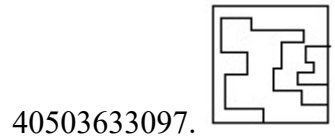
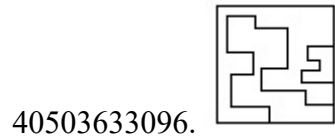


**Question Number : 41 Question Id : 4050369114 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

उत्तर आकृतियों में से कौन सी आकृति दी गयी प्रश्न आकृति का X - X से सम्बंधित सही दर्पण प्रतिबिम्ब है ?

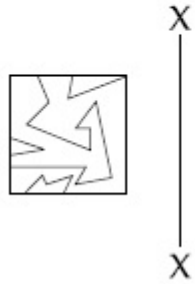


Options :

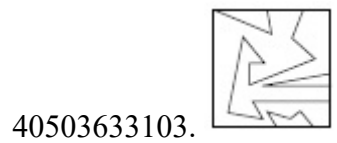
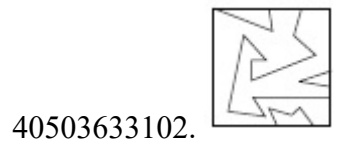
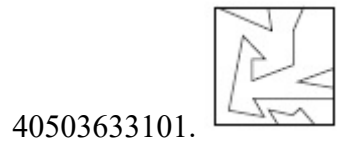
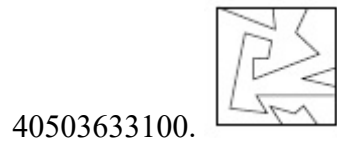


Question Number : 42 Question Id : 4050369115 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

Which one of the answer figures is the correct mirror image of the problem figure with respect to X - X?

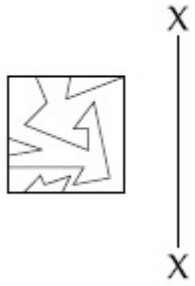


Options :

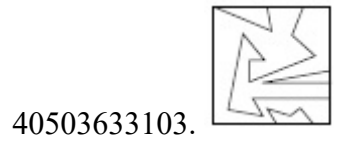
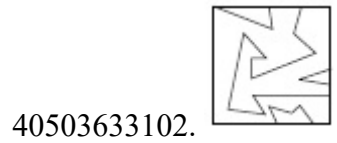
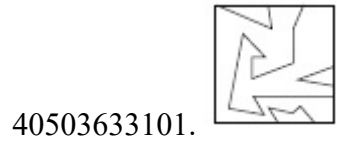
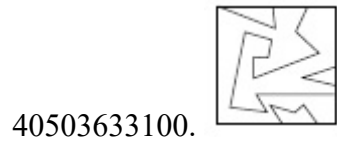


Question Number : 42 Question Id : 4050369115 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

उत्तर आकृतियों में से कौन सी आकृति दी गयी प्रश्न आकृति का X - X से सम्बंधित सही दर्पण प्रतिबिम्ब है ?



Options :

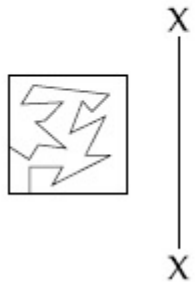


Question Number : 43 Question Id : 4050369116 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is

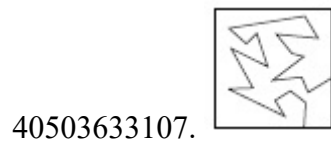
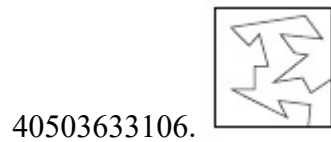
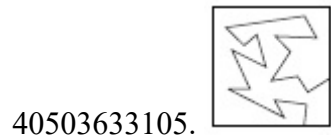
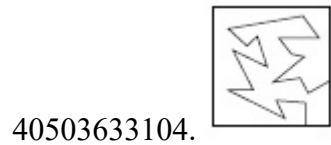
Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which one of the answer figures is the correct mirror image of the problem figure with respect to X - X?

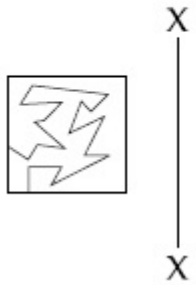


Options :

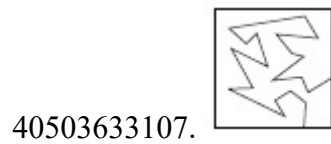
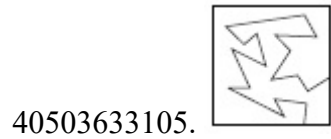
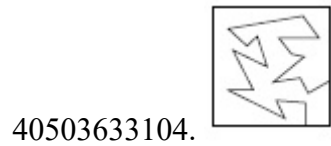


Question Number : 43 Question Id : 4050369116 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

उत्तर आकृतियों में से कौन सी आकृति दी गयी प्रश्न आकृति का X - X से सम्बंधित सही दर्पण प्रतिबिम्ब है?



Options :

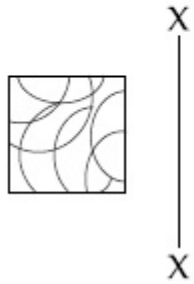


Question Number : 44 Question Id : 4050369117 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is

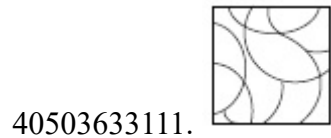
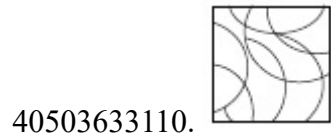
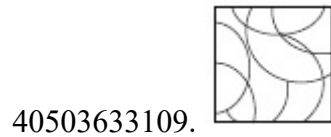
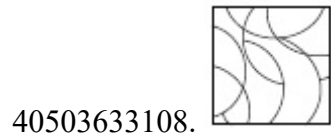
Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which one of the answer figures is the correct mirror image of the problem figure with respect to X - X?



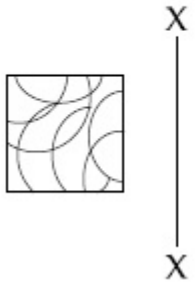
Options :



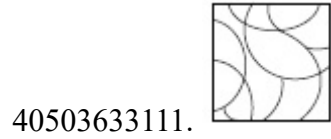
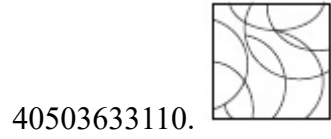
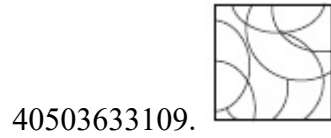
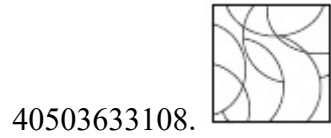
Question Number : 44 Question Id : 4050369117 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

उत्तर आकृतियों में से कौन सी आकृति दी गयी प्रश्न आकृति का X - X से सम्बंधित सही दर्पण प्रतिबिम्ब है ?



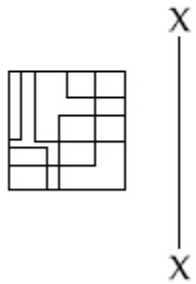
Options :



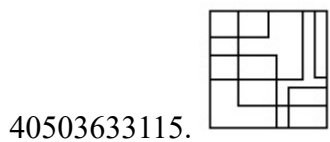
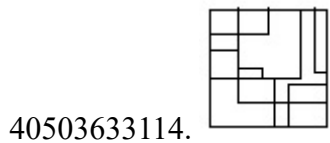
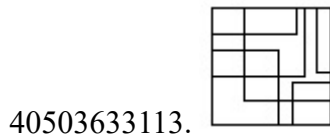
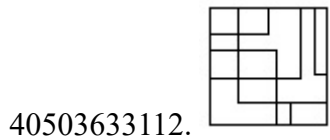
Question Number : 45 Question Id : 4050369118 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1



Which one of the answer figures is the correct mirror image of the problem figure with respect to X - X ?

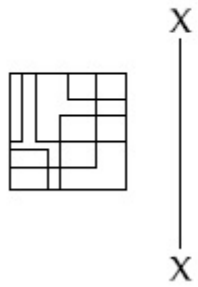


Options :

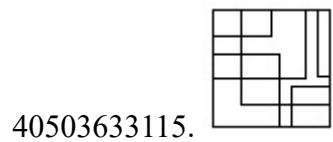
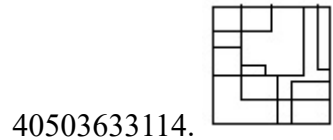
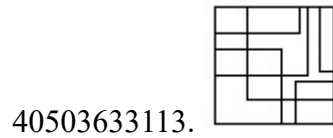
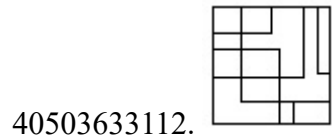


Question Number : 45 Question Id : 4050369118 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

उत्तर आकृतियों में से कौन सी आकृति दी गयी प्रश्न आकृति का X - X से सम्बंधित सही दर्पण प्रतिबिम्ब है ?



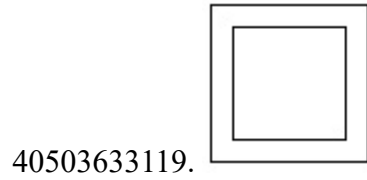
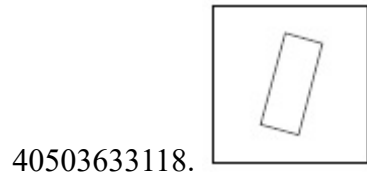
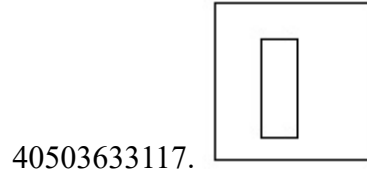
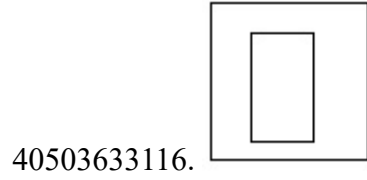
Options :



Question Number : 46 Question Id : 4050369119 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

Find the odd figure out of the problem figures given below.

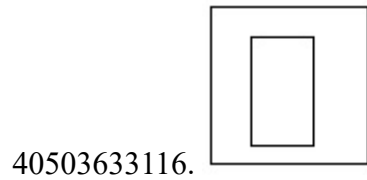
**Options :**



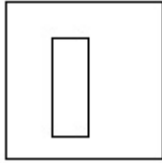
**Question Number : 46 Question Id : 4050369119 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

नीचे दी गयी प्रश्न आकृतियों में से विषम आकृति पहचानिये।

**Options :**



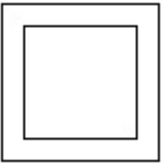
40503633117.



40503633118.



40503633119.

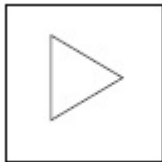


**Question Number : 47 Question Id : 4050369120 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

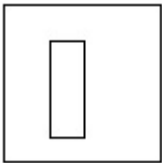
Find the odd figure out of the problem figures given below.

**Options :**

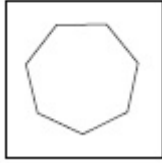
40503633120.



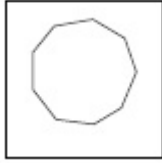
40503633121.



40503633122.



40503633123.



**Question Number : 47 Question Id : 4050369120 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

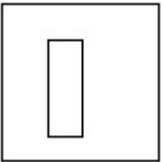
नीचे दी गयी प्रश्न आकृतियों में से विषम आकृति पहचानिये।

**Options :**

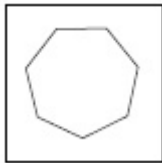
40503633120.

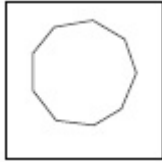


40503633121.



40503633122.



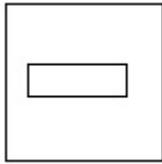


40503633123.

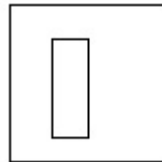
**Question Number : 48 Question Id : 4050369121 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Find the odd figure out of the problem figures given below.

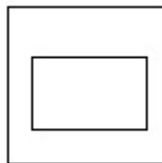
Options :



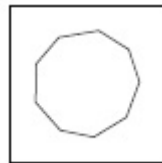
40503633124.



40503633125.



40503633126.



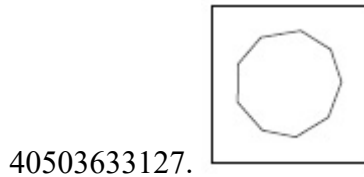
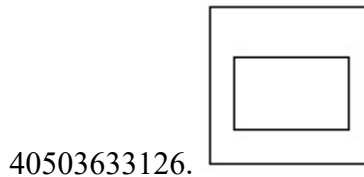
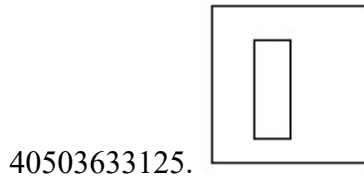
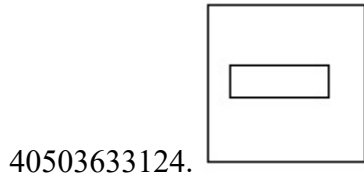
40503633127.

**Question Number : 48 Question Id : 4050369121 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

नीचे दी गयी प्रश्न आकृतियों में से विषम आकृति पहचानिये।

**Options :**

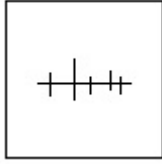


**Question Number : 49 Question Id : 4050369122 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

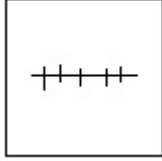
**Correct Marks : 4 Wrong Marks : 1**

Find the odd figure out of the problem figures given below.

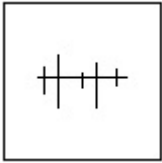
**Options :**



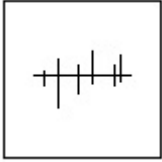
40503633128.



40503633129.



40503633130.

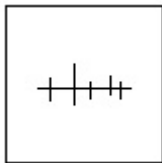


40503633131.

**Question Number : 49 Question Id : 4050369122 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

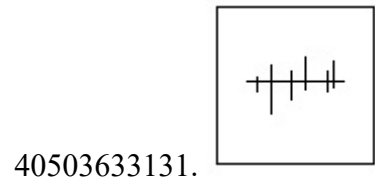
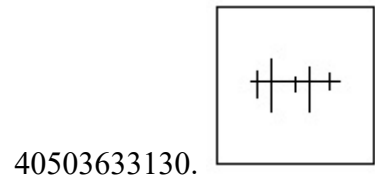
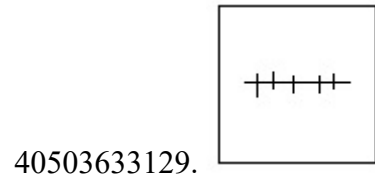
नीचे दी गयी प्रश्न आकृतियों में से विषम आकृति पहचानिये।

**Options :**



40503633128.

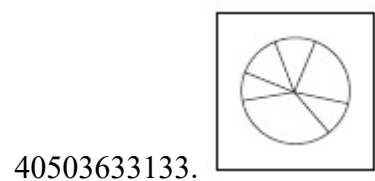
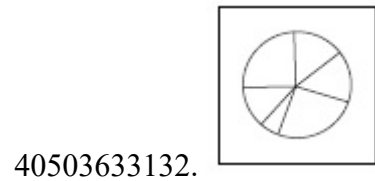




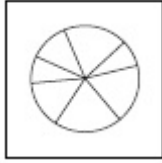
**Question Number : 50 Question Id : 4050369123 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Find the odd figure out of the problem figures given below.

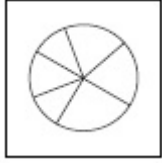
**Options :**



40503633134.



40503633135.

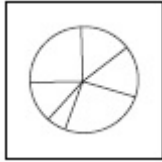


**Question Number : 50 Question Id : 4050369123 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

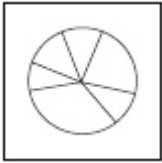
नीचे दी गयी प्रश्न आकृतियों में से विषम आकृति पहचानिये।

**Options :**

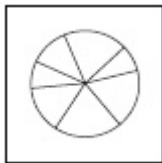
40503633132.

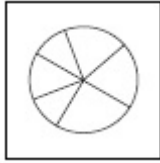


40503633133.



40503633134.



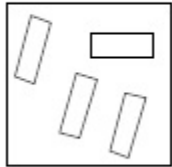


40503633135.

**Question Number : 51 Question Id : 4050369124 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

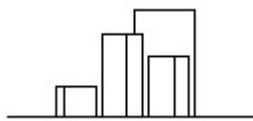
**Correct Marks : 4 Wrong Marks : 1**

The problem figure shows the top view of objects. Looking in the direction of the arrow, identify the correct elevation, from amongst the answer figures.

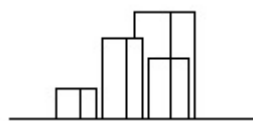


**Options :**

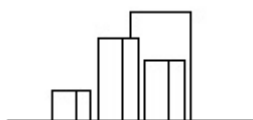
40503633136.



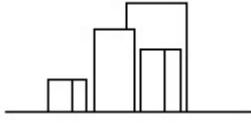
40503633137.



40503633138.

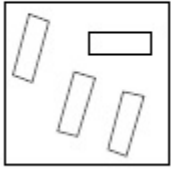


40503633139.



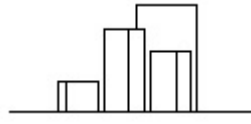
**Question Number : 51 Question Id : 4050369124 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

प्रश्न आकृति में वस्तुओं का ऊपरी दृश्य दिखाया गया है। तीर की सिंह में देखते हुए उत्तर आकृतियों में से सही सम्मुख दृश्य पहचानिये।

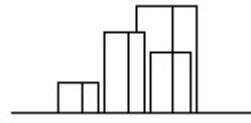


**Options :**

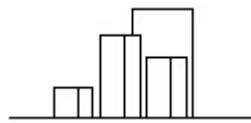
40503633136.



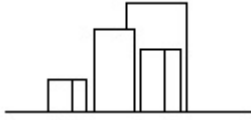
40503633137.



40503633138.

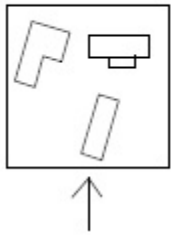


40503633139.



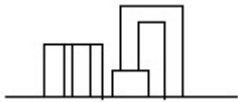
**Question Number : 52 Question Id : 4050369125 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The problem figure shows the top view of objects. Looking in the direction of the arrow, identify the correct elevation, from amongst the answer figures.

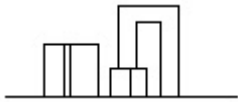


**Options :**

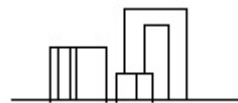
40503633140.



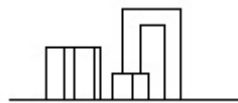
40503633141.



40503633142.

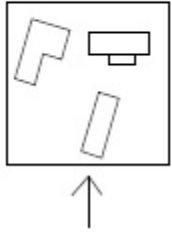


40503633143.

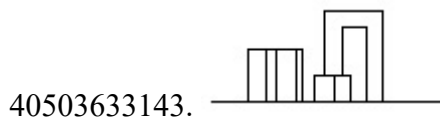
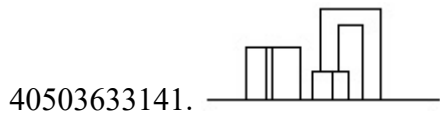
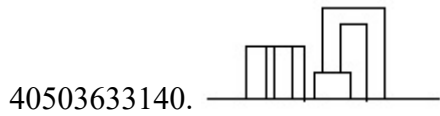


**Question Number : 52 Question Id : 4050369125 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

प्रश्न आकृति में वस्तुओं का ऊपरी दृश्य दिखाया गया है। तीर की सिंह में देखते हुए उत्तर आकृतियों में से सही सम्मुख दृश्य पहचानिये।

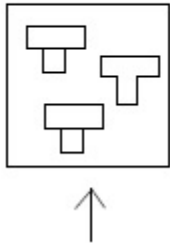


**Options :**

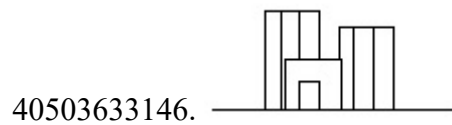
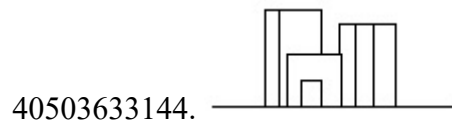


**Question Number : 53 Question Id : 4050369126 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The problem figure shows the top view of objects. Looking in the direction of the arrow, identify the correct elevation, from amongst the answer figures.

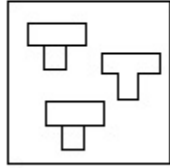


Options :

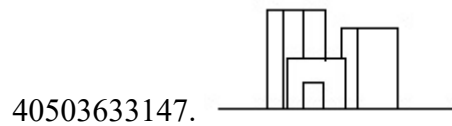
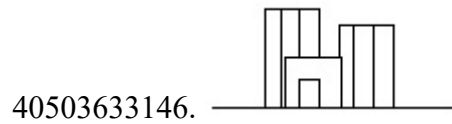
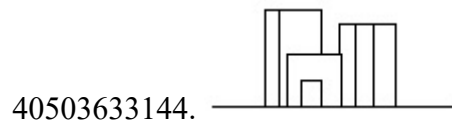


**Question Number : 53 Question Id : 4050369126 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

प्रश्न आकृति में वस्तुओं का ऊपरी दृश्य दिखाया गया है। तीर की सिंह में देखते हुए उत्तर आकृतियों में से सही सम्मुख दृश्य पहचानिये।



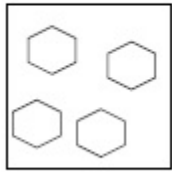
Options :



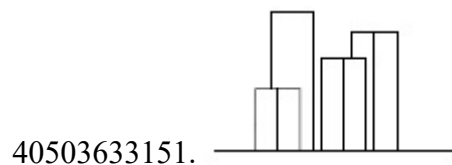
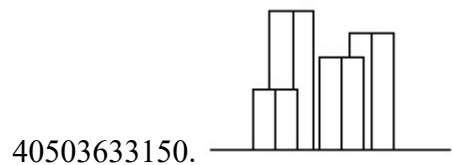
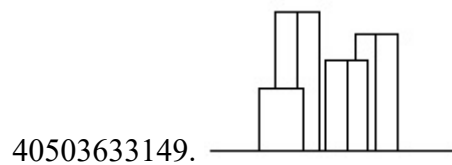
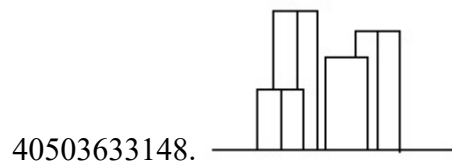
Question Number : 54 Question Id : 4050369127 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1



The problem figure shows the top view of objects. Looking in the direction of the arrow, identify the correct elevation, from amongst the answer figures.

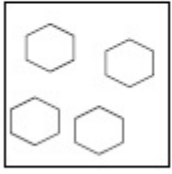


Options :

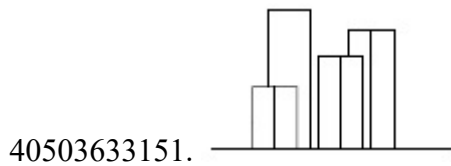
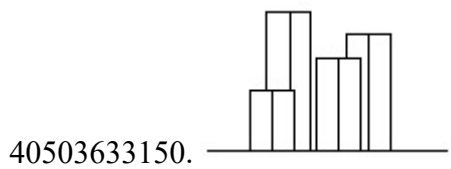
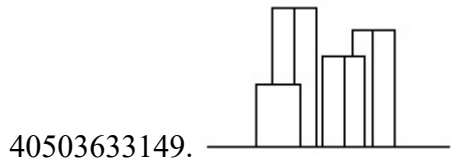
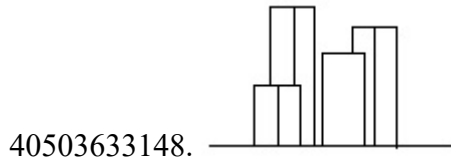


**Question Number : 54 Question Id : 4050369127 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

प्रश्न आकृति में वस्तुओं का ऊपरी दृश्य दिखाया गया है। तीर की सिह में देखते हुए उत्तर आकृतियों में से सही सम्मुख दृश्य पहचानिये।



Options :



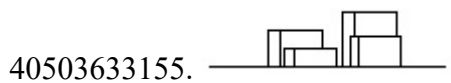
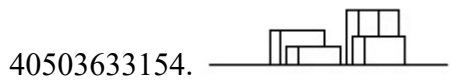
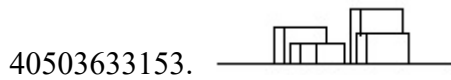
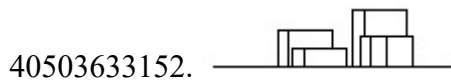
Question Number : 55 Question Id : 4050369128 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

The problem figure shows the top view of objects. Looking in the direction of the arrow, identify the correct elevation, from amongst the answer figures.

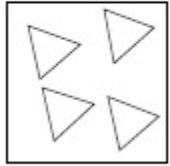


**Options :**

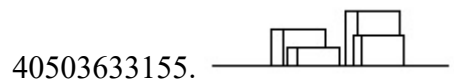
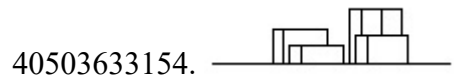
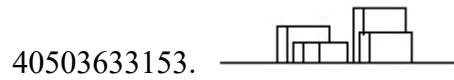
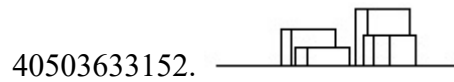


**Question Number : 55 Question Id : 4050369128 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

प्रश्न आकृति में वस्तुओं का ऊपरी दृश्य दिखाया गया है। तीर की सिंह में देखते हुए उत्तर आकृतियों में से सही सम्मुख दृश्य पहचानिये।



Options :





Question Number : 56 Question Id : 4050369129 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1


Which one of the answer figure will complete the sequence of the three problem figures ?




Options :

40503633156. 

40503633157. 

40503633158. 


40503633159. 


**Question Number : 56 Question Id : 4050369129 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**


उत्तर आकृतियों में से कौन सी आकृति को तीन प्रश्न आकृतियों में लगाने से अनुक्रम (sequence) पूरा हो जायेगा ?



**Options :**

40503633156. 

40503633157. 

40503633158. 

40503633159.

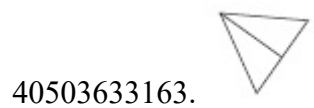
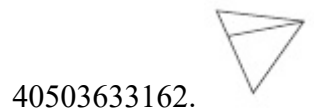
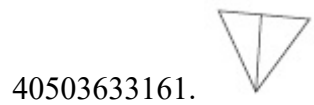
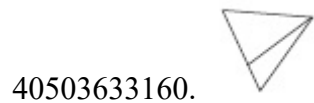


**Question Number : 57 Question Id : 4050369130 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which one of the answer figure will complete the sequence of the three problem figures ?



**Options :**

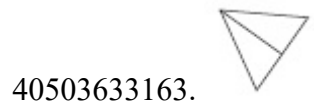
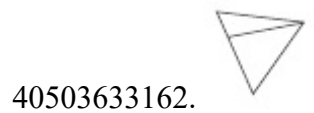
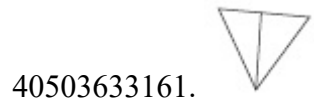
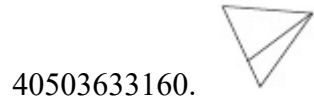


**Question Number : 57 Question Id : 4050369130 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

उत्तर आकृतियों में से कौन सी आकृति को तीन प्रश्न आकृतियों में लगाने से अनुक्रम (sequence) पूरा हो जायेगा ?



Options :




Question Number : 58 Question Id : 4050369131 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical


Correct Marks : 4 Wrong Marks : 1


Which one of the answer figure will complete the sequence of the three problem figures ?

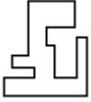


Options :

40503633164. 

40503633165. 

40503633166. 


40503633167. 


**Question Number : 58 Question Id : 4050369131 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

उत्तर आकृतियों में से कौन सी आकृति को तीन प्रश्न आकृतियों में लगाने से अनुक्रम (sequence) पूरा हो जायेगा ?

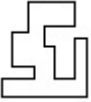


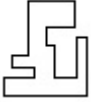
**Options :**

40503633164. 

40503633165. 



40503633166. 


40503633167. 


**Question Number : 59 Question Id : 4050369132 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**


Which one of the answer figure will complete the sequence of the three problem figures ?




**Options :**

40503633168. 

40503633169. 

40503633170. 

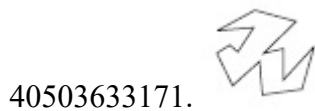
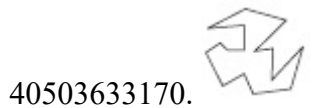
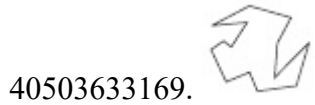
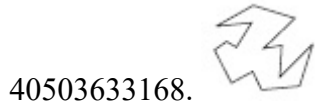
40503633171. 

Question Number : 59 Question Id : 4050369132 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

उत्तर आकृतियों में से कौन सी आकृति को तीन प्रश्न आकृतियों में लगाने से अनुक्रम (sequence) पूरा हो जायेगा ?



Options :

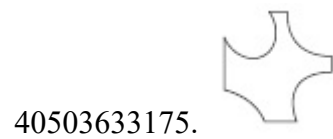
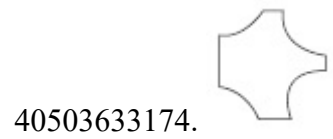
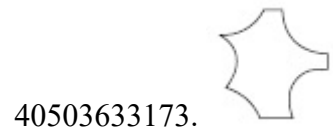
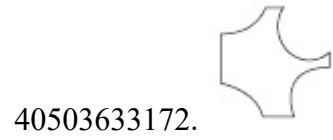


Question Number : 60 Question Id : 4050369133 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1

Which one of the answer figure will complete the sequence of the three problem figures ?



Options :

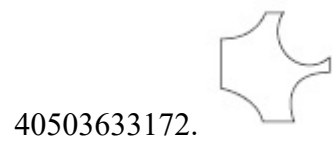


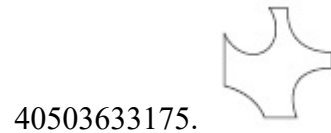
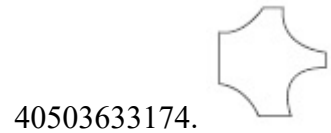
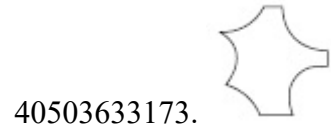
**Question Number : 60 Question Id : 4050369133 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

उत्तर आकृतियों में से कौन सी आकृति को तीन प्रश्न आकृतियों में लगाने से अनुक्रम (sequence) पूरा हो जायेगा ?



**Options :**





**Question Number : 61 Question Id : 4050369134 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

10 Downing Street is the residence of which one of the following ?

**Options :**

40503633176. President of America

40503633177. Prime Minister of England

40503633178. President of France

40503633179. President of Sri Lanka

**Question Number : 61 Question Id : 4050369134 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

10 डाउनिंग स्ट्रीट निम्नलिखित में से किसका निवास है?

**Options :**

40503633176. अमेरिका के राष्ट्रपति

40503633177. इंग्लैंड के प्रधान मंत्री

40503633178. फ्रांस के राष्ट्रपति

40503633179. श्रीलंका के राष्ट्रपति

**Question Number : 62 Question Id : 4050369135 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

In the Northern Hemisphere the winter sun sets in which one of the following directions ?

**Options :**

40503633180. North East

40503633181. North West

40503633182. South East

40503633183. South West

**Question Number : 62 Question Id : 4050369135 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

उत्तरी गोलार्ध में सर्दियों का सूर्य निम्नलिखित में से  
किस दिशा में डूबता है?

**Options :**

40503633180. उत्तर पूर्व

40503633181. उत्तर पश्चिम

40503633182. दक्षिण पूर्व

40503633183. दक्षिण पश्चिम

**Question Number : 63 Question Id : 4050369136 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

The famous Badrinath temple is located in  
which one of the following States ?

**Options :**

40503633184. Kerala

40503633185. Tamil Nadu

40503633186. Assam

40503633187. Uttarakhand

**Question Number : 63 Question Id : 4050369136 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

प्रसिद्ध बद्रीनाथ मंदिर निम्नलिखित में से किस राज्य में स्थित है ?

**Options :**

40503633184. केरल
40503633185. तमिलनाडु
40503633186. असम
40503633187. उत्तराखंड

**Question Number : 64 Question Id : 4050369137 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

What is the thickness of a one brick thick wall ?

**Options :**

40503633188. 4.5"
40503633189. 9"
40503633190. 13.5"
40503633191. 12"

**Question Number : 64 Question Id : 4050369137 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

एक ईट मोटी दीवार की मोटाई कितनी होती है?

**Options :**

40503633188. 4.5"

40503633189. 9"

40503633190. 13.5"

40503633191. 12"

**Question Number : 65 Question Id : 4050369138 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Why is the depth of a beam normally more than its width ?

**Options :**

40503633192. Horizontal Force

40503633193. Momentum

40503633194. Moment of Inertia

40503633195. Balance

**Question Number : 65 Question Id : 4050369138 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**



**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

एक बीम की गहराई सामान्य रूप से इसकी चौड़ाई से अधिक क्यों है ?

**Options :**

40503633192. क्षेत्रीय बल

40503633193. मोमेंटम

40503633194. मोमेंट ऑफ इनरशिया

40503633195. बैलेंस

**Question Number : 66 Question Id : 4050369139 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Where is the famous Notre Dame Cathedral which caught fire recently located ?

**Options :**

40503633196. Paris

40503633197. Hague

40503633198. Venice

40503633199. Rome

**Question Number : 66 Question Id : 4050369139 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

प्रसिद्ध नोट्रे डेम कैथेड्रल कहाँ है जिसमें हाल ही में आग लगी थी ?

**Options :**

40503633196. पेरिस

40503633197. हेग

40503633198. वेनिस

40503633199. रोम

**Question Number : 67 Question Id : 4050369140 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

The concept of CharBagh garden found in which one of the following garden concepts ?

**Options :**

40503633200. Christian

40503633201. Chinese

40503633202. Islamic

40503633203. Zen

**Question Number : 67 Question Id : 4050369140 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

चारबाग उद्यान की अवधारणा निम्नलिखित में से किस में पायी जाती है ?

**Options :**

40503633200. ईसाई

40503633201. चीनी

40503633202. इस्लामी

40503633203. जेन

**Question Number : 68 Question Id : 4050369141 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Where is the Bara Imambara located ?

**Options :**

40503633204. Kolkata

40503633205. Mumbai

40503633206. Hyderabad

40503633207. Lucknow

**Question Number : 68 Question Id : 4050369141 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

बारा इमामबाड़ा निम्नलिखित में से कहाँ स्थित है?

**Options :**

40503633204. कोलकाता

40503633205. मुंबई

40503633206. हैदराबाद

40503633207. लखनऊ

**Question Number : 69 Question Id : 4050369142 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Which one of the colors reflects the maximum light ?

**Options :**

40503633208. Red

40503633209. Green

40503633210. White

40503633211. Black

**Question Number : 69 Question Id : 4050369142 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

कौन सा रंग अधिकतम प्रकाश को दर्शाता है?

**Options :**

40503633208. लाल

40503633209. हरा

40503633210. सफ़ेद

40503633211. ब्लैक

**Question Number : 70 Question Id : 4050369143 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Which one of the following colors denotes equality ?

**Options :**

40503633212. White

40503633213. Blue

40503633214. Indigo

40503633215. Red

**Question Number : 70 Question Id : 4050369143 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

निम्न में से कौन सा रंग समानता को दर्शाता है ?

**Options :**

40503633212. सफ़ेद

40503633213. नीला

40503633214. इंडिगो

40503633215. लाल

**Question Number : 71 Question Id : 4050369144 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Which one of the following describes the texture of a hand made brick ?

**Options :**

40503633216. Smooth

40503633217. Glossy

40503633218. Rough

40503633219. Silky

**Question Number : 71 Question Id : 4050369144 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

निम्न में से कौन-सा एक हाथ से बनी ईंट की बनावट का वर्णन करता है?

**Options :**

40503633216. स्मूथ

40503633217. चमकदार

40503633218. खुरदरा

40503633219. रेशमी

**Question Number : 72 Question Id : 4050369145 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

What are shafts used for in buildings ?

**Options :**

40503633220. Beauty

40503633221. Concealing pipes

40503633222. Structural strength

40503633223. Stability

**Question Number : 72 Question Id : 4050369145 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

इमारतों में शाफ्ट किसके लिए उपयोग किया जाता है?

**Options :**

40503633220. सुंदरता

40503633221. पाइप छुपाने के लिए

40503633222. संरचनात्मक शक्ति

40503633223. स्थिरता

**Question Number : 73 Question Id : 4050369146 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Which one of the following is the most suitable material for toilet floors ?

**Options :**

40503633224. Polished granite

40503633225. Non skid tiles

40503633226. Wood

40503633227. Carpet



**Question Number : 73 Question Id : 4050369146 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

निम्न में से कौन सा शौचालय के फर्श के लिए सबसे उपयुक्त सामग्री है?

**Options :**

40503633224. पॉलिश ग्रेनाइट

40503633225. नॉन स्क्रिड टाइल्स

40503633226. लकड़ी

40503633227. कालीन

**Question Number : 74 Question Id : 4050369147 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Who amongst the following designed Indian Institute of Management ?

**Options :**

40503633228. Charles Correa

40503633229. B.V. Doshi

40503633230. Louis Kahn

40503633231. A.P. Kanvinde

**Question Number : 74 Question Id : 4050369147 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

निम्नलिखित में से किसने भारतीय प्रबंधन संस्थान का निर्माण किया था ?

**Options :**

40503633228. चार्ल्स कोरिआ

40503633229. बी.वी. दोशी

40503633230. लुइस काह

40503633231. ए.पी. काविंद

**Question Number : 75 Question Id : 4050369148 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

Who amongst the following designed The Falling Waters ?

**Options :**

40503633232. Frank Ghery

40503633233. Zaha Hadid

40503633234. Norman Foster

40503633235. Frank Lloyd Wright

**Question Number : 75 Question Id : 4050369148 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

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

निम्नलिखित में से किसने फॉलिंग वाटर्स का डिजाइन किया था?

**Options :**

40503633232. फ्रैंक घेरि

40503633233. जहा हदीद

40503633234. नॉर्मन फोस्टर

40503633235. फ्रैंक लॉयड राइट

## Drawing

<b>Section Id :</b>	405036328
<b>Section Number :</b>	3
<b>Section type :</b>	Offline
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	2
<b>Number of Questions to be attempted :</b>	2
<b>Section Marks :</b>	100
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	Yes
<b>Mark As Answered Required? :</b>	Yes

**Sub-Section Number :**

1

**Sub-Section Id :**

405036660

**Question Shuffling Allowed :**

No

**Question Number : 76 Question Id : 4050369149 Question Type : SUBJECTIVE Display Question Number : Yes**

**Correct Marks : 50**

In the space provided for the answer of this question, draw an aesthetic composition appropriate to this space using only rectangles. There is no restriction to numbers, sizes, placement and directions of these shapes. Color this composition so that it becomes visually exciting.

**Question Number : 76 Question Id : 4050369149 Question Type : SUBJECTIVE Display Question Number : Yes**

**Correct Marks : 50**

इस प्रश्न के उत्तर के लिए प्रदान की गई जगह में, आयतों का उपयोग करके इस स्थान के लिए उपयुक्त एक सौंदर्य संरचना तैयार करें। इन आकृतियों की संख्या, आकार, प्लेसमेंट और दिशानिर्देशों पर कोई प्रतिबंध नहीं है। इस रचना को रंग दें ताकि यह दृष्टि से रोमांचक हो जाए।

**Question Number : 77 Question Id : 4050369150 Question Type : SUBJECTIVE Display Question Number : Yes**

**Correct Marks : 50**

Draw from imagination a highway on which cars and trucks are moving in both directions.

**OR**

Draw from imagination an interior of cinema hall.

**OR**

Draw from memory your best teachers face.

**Question Number : 77 Question Id : 4050369150 Question Type : SUBJECTIVE Display Question Number : Yes Correct Marks : 50**

कल्पना से एक राजमार्ग का चित्र बनायें जिस पर कार और ट्रक दोनों दिशाओं में आगे बढ़ रहे हैं।

**अथवा**

सिनेमा हॉल के एक अंदर का दृश्य कल्पना से चित्रित करें।

**अथवा**

अपने सबसे अच्छे शिक्षक के चेहरे का स्मृति से चित्र बनायें।