

<b>Question Paper Name :</b>	B ARCH H 23rd Feb 2021 Shift 2
<b>Subject Name :</b>	B ARCH H
<b>Creation Date :</b>	2021-02-22 13:54:51
<b>Duration :</b>	180
<b>Number of Questions :</b>	82
<b>Total Marks :</b>	400
<b>Display Marks:</b>	Yes

## B ARCH H

<b>Group Number :</b>	1
<b>Group Id :</b>	708191149
<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 Section A

<b>Section Id :</b>	708191492
<b>Section Number :</b>	1
<b>Section type :</b>	Online

**Mandatory or Optional :** Mandatory  
**Number of Questions :** 20  
**Number of Questions to be attempted :** 20  
**Section Marks :** 80  
**Mark As Answered Required? :** Yes  
**Sub-Section Number :** 1  
**Sub-Section Id :** 708191772  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Id : 70819113938 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

The value of the integral  $\int_{-4}^4 |9-x^2| dx$  is :

**Options :**

70819146241.  $\frac{121}{3}$

70819146242.  $\frac{122}{3}$

70819146243.  $\frac{125}{3}$

70819146244.  $\frac{128}{3}$

**Question Number : 1 Question Id : 70819113938 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

समाकलन  $\int_{-4}^4 |9-x^2| dx$  का मान है :

Options :

70819146241.  $\frac{121}{3}$

70819146242.  $\frac{122}{3}$

70819146243.  $\frac{125}{3}$

70819146244.  $\frac{128}{3}$

Question Number : 2 Question Id : 70819113939 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The sum of infinite number of terms of a Geometric Progression is 3 and the sum of the squares of its terms is  $\frac{9}{2}$ . The sum of the cubes of its terms is :

Options :

70819146245.  $\frac{31}{13}$

70819146246.  $\frac{108}{13}$

70819146247.  $\frac{27}{2}$

70819146248.  $\frac{54}{7}$

Question Number : 2 Question Id : 70819113939 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

एक गुणोत्तर श्रेणी के अनन्त पदों का योग 3 है तथा इसके पदों के वर्गों का योग  $\frac{9}{2}$  है, तो इसके पदों के घनों का योग है :

Options :

70819146245.  $\frac{31}{13}$

70819146246.  $\frac{108}{13}$

70819146247.  $\frac{27}{2}$

70819146248.  $\frac{54}{7}$

Question Number : 3 Question Id : 70819113940 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following Boolean expression is a tautology ?

Options :

70819146249.  $P \Leftrightarrow P \vee q$

70819146250.  $(P \wedge q) \Leftrightarrow P$

70819146251.  $(P \wedge (\sim P \vee q)) \vee (\sim q)$

70819146252.  $(p \vee \sim p) \wedge (q \vee (\sim q))$

**Question Number : 3 Question Id : 70819113940 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

निम्न में से कौन-सा बूलीय व्यंजक पुनरुक्ति है ?

**Options :**

70819146249.  $P \Leftrightarrow P \vee q$

70819146250.  $(P \wedge q) \Leftrightarrow P$

70819146251.  $(P \wedge (\sim P \vee q)) \vee (\sim q)$

70819146252.  $(P \vee \sim P) \wedge (q \vee (\sim q))$

**Question Number : 4 Question Id : 70819113941 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

Let  $|a| < 1, |b| < 1, |c| < 1$  and  $x = \sum_{n=0}^{\infty} a^n, y = \sum_{n=0}^{\infty} b^n, z = \sum_{n=0}^{\infty} c^n$ . If  $\frac{1}{x}, \frac{1}{y}, \frac{1}{z}$  are in Arithmetic

Progression, then :

**Options :**

70819146253. a, b and c are in Arithmetic Progression

70819146254. a, b and c are in Geometric Progression

70819146255. a, 2b and c are in Arithmetic Progression

70819146256. a, b and c satisfy  $2b^2 = ac$

Question Number : 4 Question Id : 70819113941 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

माना  $|a| < 1, |b| < 1, |c| < 1$  हैं तथा  $x = \sum_{n=0}^{\infty} a^n, y = \sum_{n=0}^{\infty} b^n$  और  $z = \sum_{n=0}^{\infty} c^n$  हैं। यदि  $\frac{1}{x}, \frac{1}{y}, \frac{1}{z}$  समांतर श्रेणी में हैं,

तो :

Options :

70819146253. a, b तथा c समांतर श्रेणी में हैं

70819146254. a, b तथा c गुणोत्तर श्रेणी में हैं

70819146255. a, 2b तथा c समांतर श्रेणी में हैं

70819146256. a, b तथा c,  $2b^2 = ac$  को संतुष्ट करते हैं

Question Number : 5 Question Id : 70819113942 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

$\sum_{n=1}^{\infty} \frac{2n^2 + 7n + 5}{n!}$  is equal to :

Options :

70819146257.  $15e + 5$

70819146258.  $15e - 5$

70819146259.  $16e - 5$

Question Number : 5 Question Id : 70819113942 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

$$\sum_{n=1}^{\infty} \frac{2n^2 + 7n + 5}{n!} \text{ बराबर है :}$$

Options :

70819146257.  $15e + 5$

70819146258.  $15e - 5$

70819146259.  $16e - 5$

70819146260.  $16e - 7$

Question Number : 6 Question Id : 70819113943 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The least positive integral value of  $\lambda$  such that  $10^{50} + (3 \times (4)^{52}) + \lambda$  is divisible by 9 is :

Options :

70819146261. 5

70819146262. 3

70819146263. 7

70819146264. 1

Question Number : 6 Question Id : 70819113943 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

$\lambda$  का निम्नतम धनात्मक पूर्णांक मान, जिसके लिये  $10^{50} + (3 \times (4)^{52}) + \lambda$ , 9 से विभाज्य है, है :

Options :

70819146261. 5

70819146262. 3

70819146263. 7

70819146264. 1

Question Number : 7 Question Id : 70819113944 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

There are 4, 5 and 6 points on the three parallel and co-planar lines. If no set of four or more points is cyclic and no set of three points lying on distinct lines is collinear, then the number of circles passing through exactly three points is :

Options :

70819146265. 455

70819146266. 421

70819146267. 435

70819146268. 441

Question Number : 7 Question Id : 70819113944 Question Type : MCQ Option Shuffling : Yes Is

**Question Mandatory : No**

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

तीन समान्तर तथा समतलीय रेखाओं पर 4, 5 तथा 6 बिन्दु हैं। यदि चार या उससे अधिक बिन्दुओं का कोई भी समूह एक चक्र में नहीं है तथा तीन बिन्दुओं का कोई भी समूह, जो विभिन्न रेखाओं पर स्थित हैं, सररेख नहीं है, तो उन वृत्तों की संख्या, जो ठीक तीन बिन्दुओं से होकर जाते हैं, है।

**Options :**

70819146265. 455

70819146266. 421

70819146267. 435

70819146268. 441

**Question Number : 8 Question Id : 70819113945 Question Type : MCQ Option Shuffling : Yes Is**

**Question Mandatory : No**

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

If  $y = \frac{ax - b}{(x - 1)(x - 4)}$  has an extremum at the point  $(2, -1)$ , then the values of  $a$  and  $b$  are :

**Options :**

70819146269.  $a = 1, b = 0$

70819146270.  $a = 0, b = 1$

70819146271.  $a = 0, b = -1$

70819146272.  $a = -1, b = 1$

**Question Number : 8 Question Id : 70819113945 Question Type : MCQ Option Shuffling : Yes Is**

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

यदि  $y = \frac{ax - b}{(x-1)(x-4)}$  का एक चरम बिन्दु  $(2, -1)$  पर है, तो  $a$  तथा  $b$  के मान हैं :

Options :

70819146269.  $a = 1, b = 0$

70819146270.  $a = 0, b = 1$

70819146271.  $a = 0, b = -1$

70819146272.  $a = -1, b = 1$

Question Number : 9 Question Id : 70819113946 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The distance between the planes  $\vec{r} \cdot (2\hat{i} + \hat{j} - 2\hat{k}) + 5 = 0$  and  $\vec{r} \cdot (6\hat{i} + 3\hat{j} - 6\hat{k}) + 2 = 0$  is :

Options :

70819146273.  $\frac{9}{13}$

70819146274.  $\frac{15}{4}$

70819146275.  $\frac{13}{9}$

70819146276.  $\frac{1}{13}$

Question Number : 9 Question Id : 70819113946 Question Type : MCQ Option Shuffling : Yes

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

दो समतलों  $\vec{r} \cdot (2\hat{i} + \hat{j} - 2\hat{k}) + 5 = 0$  तथा  $\vec{r} \cdot (6\hat{i} + 3\hat{j} - 6\hat{k}) + 2 = 0$  के बीच की दूरी है :

Options :

70819146273.  $\frac{9}{13}$

70819146274.  $\frac{15}{4}$

70819146275.  $\frac{13}{9}$

70819146276.  $\frac{1}{13}$

Question Number : 10 Question Id : 70819113947 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The probability of solving a problem in Mathematics by two students X and Y are  $\frac{1}{4}$  and  $\frac{1}{5}$  respectively. If both of them try to solve the problem independently, then the probability that the problem will be solved by exactly one of them is equal to :

Options :

70819146277.  $\frac{7}{20}$

70819146278.  $\frac{1}{20}$

70819146279.  $\frac{19}{20}$

70819146280.  $\frac{12}{20}$

**Question Number : 10 Question Id : 70819113947 Question Type : MCQ Option Shuffling : Yes**  
**Is Question Mandatory : No**

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

दो विद्यार्थियों X तथा Y, के गणित के एक प्रश्न को हल करने की प्रायिकता क्रमशः  $\frac{1}{4}$  तथा  $\frac{1}{5}$  है। यदि दोनों उस प्रश्न को स्वतंत्र रूप से हल करने का प्रयत्न करते हैं, तो उस प्रश्न के उनमें से ठीक एक के द्वारा हल होने की प्रायिकता है :

**Options :**

70819146277.  $\frac{7}{20}$

70819146278.  $\frac{1}{20}$

70819146279.  $\frac{19}{20}$

70819146280.  $\frac{12}{20}$

**Question Number : 11 Question Id : 70819113948 Question Type : MCQ Option Shuffling : Yes**  
**Is Question Mandatory : No**

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

The polar form of the complex number  $\frac{1+i}{1-i}$  is equal to :

**Options :**

70819146281.  $\cos \frac{\pi}{2} + i \sin \frac{\pi}{2}$

70819146282.  $\cos \frac{\pi}{2} - i \sin \frac{\pi}{2}$

70819146283.  $\cos \frac{\pi}{4} + i \sin \frac{\pi}{4}$

70819146284.  $\cos \frac{\pi}{4} - i \sin \frac{\pi}{4}$

Question Number : 11 Question Id : 70819113948 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

सम्मिश्र संख्या  $\frac{1+i}{1-i}$  का ध्रुवीय रूप है :

Options :

70819146281.  $\cos \frac{\pi}{2} + i \sin \frac{\pi}{2}$

70819146282.  $\cos \frac{\pi}{2} - i \sin \frac{\pi}{2}$

70819146283.  $\cos \frac{\pi}{4} + i \sin \frac{\pi}{4}$

70819146284.  $\cos \frac{\pi}{4} - i \sin \frac{\pi}{4}$

Question Number : 12 Question Id : 70819113949 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If the equation of a line which divides the line segment joining the points  $(1, 0)$  and  $(3, 0)$  in the ratio  $2 : 1$  and is also perpendicular to it, is  $ax = 7$ , then the value of  $a$  is equal to :

**Options :**

70819146285. 2

70819146286. 3

70819146287. 4

70819146288. 1

**Question Number : 12 Question Id : 70819113949 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

यदि उस रेखा का समीकरण, जो बिन्दुओं  $(1, 0)$  तथा  $(3, 0)$  को मिलाने वाले रेखाखंड को  $2 : 1$  के अनुपात में काटती है तथा इस पर लम्बवत भी है,  $ax = 7$  है, तो  $a$  का मान बराबर है :

**Options :**

70819146285. 2

70819146286. 3

70819146287. 4

70819146288. 1

**Question Number : 13 Question Id : 70819113950 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Equation of the circle, which is the mirror image of the circle  $x^2 + y^2 - 2x = 0$  with respect to the line  $x + y = 2$ , is :

Options :

70819146289.  $x^2 + y^2 - 2x + 4y + 3 = 0$

70819146290.  $x^2 + y^2 - 4x - 2y + 4 = 0$

70819146291.  $2(x^2 + y^2) - x + y + 1 = 0$

70819146292.  $x^2 + y^2 - 2x - 4y + 3 = 0$

Question Number : 13 Question Id : 70819113950 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

रेखा,  $x + y = 2$  के सापेक्ष, वृत्त,  $x^2 + y^2 - 2x = 0$  के दर्पण प्रतिबिम्ब वृत्त का समीकरण है :

Options :

70819146289.  $x^2 + y^2 - 2x + 4y + 3 = 0$

70819146290.  $x^2 + y^2 - 4x - 2y + 4 = 0$

70819146291.  $2(x^2 + y^2) - x + y + 1 = 0$

70819146292.  $x^2 + y^2 - 2x - 4y + 3 = 0$

Question Number : 14 Question Id : 70819113951 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Equations of the common tangent of the ellipse  $\frac{(x+1)^2}{2^2} + \frac{(y-1)^2}{3^2} = 1$  and the circle

$(x+1)^2 + (y-1)^2 = 4$  are :

Options :

70819146293.  $y+3=0$  and  $x-1=0$

70819146294.  $x-3=0$  and  $y+1=0$

70819146295.  $x+3=0$  and  $x-1=0$

70819146296.  $y+3=0$  and  $y-1=0$

Question Number : 14 Question Id : 70819113951 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

दीर्घवृत्त  $\frac{(x+1)^2}{2^2} + \frac{(y-1)^2}{3^2} = 1$  तथा वृत्त,  $(x+1)^2 + (y-1)^2 = 4$  की उभयनिष्ठ स्पर्श रेखाओं के समीकरण हैं।

Options :

70819146293.  $y+3=0$  तथा  $x-1=0$

70819146294.  $x-3=0$  तथा  $y+1=0$

70819146295.  $x+3=0$  तथा  $x-1=0$

70819146296.  $y+3=0$  तथा  $y-1=0$

Question Number : 15 Question Id : 70819113952 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If  $A = \begin{bmatrix} 1 & a \\ 0 & 1 \end{bmatrix}$ , then  $A^k$  ( $k \in \mathbb{N}$ ) is :

Options :

70819146297.  $\begin{bmatrix} 1 & ka \\ 0 & 1 \end{bmatrix}$

70819146298.  $\begin{bmatrix} 1 & k^2a \\ 0 & 1 \end{bmatrix}$

70819146299.  $\begin{bmatrix} k & ka \\ 0 & k \end{bmatrix}$

70819146300.  $\begin{bmatrix} 1 & ka \\ 0 & 0 \end{bmatrix}$

Question Number : 15 Question Id : 70819113952 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

यदि  $A = \begin{bmatrix} 1 & a \\ 0 & 1 \end{bmatrix}$  है, तो  $A^k (k \in \mathbb{N})$  बराबर है :

Options :

70819146297.  $\begin{bmatrix} 1 & ka \\ 0 & 1 \end{bmatrix}$

70819146298.  $\begin{bmatrix} 1 & k^2a \\ 0 & 1 \end{bmatrix}$

70819146299.  $\begin{bmatrix} k & ka \\ 0 & k \end{bmatrix}$

70819146300.  $\begin{bmatrix} 1 & ka \\ 0 & 0 \end{bmatrix}$

Question Number : 16 Question Id : 70819113953 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The values of  $s$  and  $t$ , for which the system of equations

$$x_1 + x_2 + x_3 = 5$$

$$x_1 + 2x_2 + 3x_3 = 9$$

$$x_1 + 3x_2 + sx_3 = t$$

has no solution, are :

Options :

70819146301.  $s=5, t=13$

70819146302.  $s \neq 5$

70819146303.  $s=5, t \neq 13$

70819146304.  $t \neq 13$

Question Number : 16 Question Id : 70819113953 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

$s$  तथा  $t$  के वे मान, जिनके लिए समीकरण निकाय

$$x_1 + x_2 + x_3 = 5$$

$$x_1 + 2x_2 + 3x_3 = 9$$

$$x_1 + 3x_2 + sx_3 = t$$

का कोई हल नहीं है, हैं

Options :

70819146301.  $s=5, t=13$

70819146302.  $s \neq 5$

70819146303.  $s=5, t \neq 13$

70819146304.  $t \neq 13$

Question Number : 17 Question Id : 70819113954 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Derivative of  $\tan^{-1}\left(\frac{2x}{1-x^2}\right)$  with respect to  $\sin^{-1}\left(\frac{2x}{1+x^2}\right)$  in  $(1, \infty)$ , is :

Options :

70819146305. 1

70819146306. -1

70819146307. 0

70819146308. 2

Question Number : 17 Question Id : 70819113954 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

अन्तराल  $(1, \infty)$  में,  $\tan^{-1}\left(\frac{2x}{1-x^2}\right)$  का,  $\sin^{-1}\left(\frac{2x}{1+x^2}\right)$  के सापेक्ष अवकलज है :

Options :

70819146305. 1

70819146306. -1

70819146307. 0

70819146308. <sup>2</sup>

Question Number : 18 Question Id : 70819113955 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Let  $\vec{a}$ ,  $\vec{b}$  and  $\vec{c}$  be three vectors such that  $|\vec{a}| = |\vec{b}| = \frac{|\vec{c}|}{2} = 1$ . If  $\vec{a} \times (\vec{a} \times \vec{c}) + \vec{b} = \vec{0}$ , then

the acute angle between  $\vec{a}$  and  $\vec{c}$  is:

Options :

70819146309.  $\frac{\pi}{6}$

70819146310.  $\frac{\pi}{4}$

70819146311.  $\frac{\pi}{3}$

70819146312.  $\frac{5\pi}{12}$

Question Number : 18 Question Id : 70819113955 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

माना  $\vec{a}$ ,  $\vec{b}$  तथा  $\vec{c}$  तीन सदिश हैं, जिनके लिए  $|\vec{a}| = |\vec{b}| = \frac{|\vec{c}|}{2} = 1$  हैं। यदि  $\vec{a} \times (\vec{a} \times \vec{c}) + \vec{b} = \vec{0}$  है, तो

सदिशों  $\vec{a}$  तथा  $\vec{c}$  के बीच का न्यूनकोण है :

Options :

70819146309.  $\frac{\pi}{6}$

70819146310.  $\frac{\pi}{4}$

70819146311.  $\frac{\pi}{3}$

70819146312.  $\frac{5\pi}{12}$

**Question Number : 19 Question Id : 70819113956 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No**

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

Solution of the differential equation  $(1 + y^2)dx = (\tan^{-1}y - x)dy$  is :  
(where c is an arbitrary constant)

**Options :**

70819146313.  $x = 1 - \tan^{-1}y + ce^{-\tan^{-1}y}$

70819146314.  $y = \tan^{-1}y - 1 + ce^{-\tan^{-1}x}$

70819146315.  $x = \tan^{-1}y - 1 + ce^{-\tan^{-1}y}$

70819146316.  $x = -\tan^{-1}y - 1 - ce^{\tan^{-1}x}$

**Question Number : 19 Question Id : 70819113956 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No**

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

अवकल समीकरण  $(1+y^2)dx = (\tan^{-1}y - x)dy$  का हल है :  
(जबकि  $c$  एक स्वेच्छ अचर है)

**Options :**

70819146313.  $x = 1 - \tan^{-1}y + ce^{-\tan^{-1}y}$

70819146314.  $y = \tan^{-1}y - 1 + ce^{-\tan^{-1}x}$

70819146315.  $x = \tan^{-1}y - 1 + ce^{-\tan^{-1}y}$

70819146316.  $x = -\tan^{-1}y - 1 - ce^{\tan^{-1}x}$

**Question Number : 20 Question Id : 70819113957 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

The values of  $x$ , for which the vectors  $\vec{a} = (x^2 - 16)\hat{i} + 4\hat{j} - (x^2 - 25)\hat{k}$  make acute angles with the (positive directions of) coordinate axes lie in :

**Options :**

70819146317.  $[-5, -4] \cup [4, 5]$

70819146318.  $[-5, 4] \cup (-4, 5]$

70819146319.  $(-5, -4) \cup (4, 5)$

70819146320.  $(-5, 4) \cup (-4, 5)$

**Question Number : 20 Question Id : 70819113957 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

$x$  के मान, जिनके लिए सदिश  $\vec{a} = (x^2 - 16)\hat{i} + 4\hat{j} - (x^2 - 25)\hat{k}$  निर्देशांक अक्षों की धनात्मक दिशाओं के साथ न्यूनकोण बनाते हैं, निम्न में से किस में स्थित हैं?

**Options :**

70819146317.  $[-5, -4] \cup [4, 5]$

70819146318.  $[-5, 4] \cup (-4, 5]$

70819146319.  $(-5, -4) \cup (4, 5)$

70819146320.  $(-5, 4) \cup (-4, 5)$

## Mathematics Section B

<b>Section Id :</b>	708191493
<b>Section Number :</b>	2
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	10
<b>Number of Questions to be attempted :</b>	5
<b>Section Marks :</b>	20
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	708191773
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 21 Question Id : 70819113958 Question Type : SA**

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

$$\int_0^{\pi} \sqrt{\frac{1 + \cos 2x}{2}} dx \text{ is } \underline{\hspace{2cm}}.$$

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.001

**Question Number :** 21 **Question Id :** 70819113958 **Question Type :** SA

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

$$\int_0^{\pi} \sqrt{\frac{1 + \cos 2x}{2}} dx \text{ बराबर } \underline{\hspace{2cm}} |$$

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.001

**Question Number :** 22 **Question Id :** 70819113959 **Question Type :** SA

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

The minimum value of  $9\tan^2\theta + 4\cot^2\theta$  is \_\_\_\_\_.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

Question Number : 22 Question Id : 70819113959 Question Type : SA

Correct Marks : 4 Wrong Marks : 0

$9 \tan^2\theta + 4 \cot^2\theta$  का न्यूनतम मान है \_\_\_\_\_ ।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

5 to 5.001

Question Number : 23 Question Id : 70819113960 Question Type : SA

Correct Marks : 4 Wrong Marks : 0

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

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

5 to 5.001

Question Number : 23 Question Id : 70819113960 Question Type : SA

Correct Marks : 4 Wrong Marks : 0

बिन्दु  $(1, 2, 3)$  से रेखा  $\frac{-x+6}{-3} = \frac{y-7}{2} = \frac{z-7}{-2}$  पर डाले गए लम्ब की लम्बाई है \_\_\_\_\_ ।

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.001

**Question Number :** 24 **Question Id :** 70819113961 **Question Type :** SA

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

If  $\log_3 2$ ,  $\log_3(2^x - 5)$  and  $\log_3\left(2^x - \frac{7}{2}\right)$  are in Arithmetic Progression, then the value of  $x$  is

\_\_\_\_\_.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.001

**Question Number :** 24 **Question Id :** 70819113961 **Question Type :** SA

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

यदि  $\log_3 2$ ,  $\log_3(2^x - 5)$  तथा  $\log_3\left(2^x - \frac{7}{2}\right)$  समांतर श्रेणी में हैं, तो  $x$  बराबर है \_\_\_\_\_।

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

Question Number : 25 Question Id : 70819113962 Question Type : SA

Correct Marks : 4 Wrong Marks : 0

If  $x^2+x+1=0$ , then  $-\left\{\left(x-\frac{1}{x}\right)^2+\left(x^2-\frac{1}{x^2}\right)^2+\left(x^3-\frac{1}{x^3}\right)^2\right\}$  is \_\_\_\_\_.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

5 to 5.001

Question Number : 25 Question Id : 70819113962 Question Type : SA

Correct Marks : 4 Wrong Marks : 0

यदि  $x^2+x+1=0$  है, तो  $-\left\{\left(x-\frac{1}{x}\right)^2+\left(x^2-\frac{1}{x^2}\right)^2+\left(x^3-\frac{1}{x^3}\right)^2\right\}$  बराबर है \_\_\_\_\_।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

5 to 5.001

Question Number : 26 Question Id : 70819113963 Question Type : SA

Correct Marks : 4 Wrong Marks : 0

$x^2 + y^2 - 4x - 2y - 11 = 0$  is a circle to which tangents are drawn from the point  $(4, 5)$  which form a quadrilateral with a pair of radii. The area of this quadrilateral in square units is \_\_\_\_\_.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.001

**Question Number :** 26 **Question Id :** 70819113963 **Question Type :** SA

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

बिन्दु  $(4, 5)$  से वृत्त  $x^2 + y^2 - 4x - 2y - 11 = 0$  पर खींची गई स्पर्श रेखाएं, दो त्रिज्याओं के साथ एक चतुर्भुज बनाती हैं। इस चतुर्भुज का क्षेत्रफल, वर्ग इकाइयों में है \_\_\_\_\_।

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.001

**Question Number :** 27 **Question Id :** 70819113964 **Question Type :** SA

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

If the sum of mean and variance of a binomial distribution is 15 and the sum of their squares is 117, then the number of independent trials 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 5.001

**Question Number : 27 Question Id : 70819113964 Question Type : SA**

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

यदि एक द्विपद बंटन के माध्य तथा प्रसरण का योग 15 है और उनके वर्गों का योग 117 है, तो स्वतंत्र अभिप्रयोगों की संख्या है \_\_\_\_\_।

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Range

**Text Areas :** PlainText

**Possible Answers :**

5 to 5.001

**Question Number : 28 Question Id : 70819113965 Question Type : SA**

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

Let the equation of the plane passing through the points  $(1, 2, 6)$ ,  $(2, 5, 7)$  and perpendicular to the plane  $4x - y + z = 15$  be  $ax + by + cz + d = 0$ . If  $a, b, c, d \in \mathbb{Z}$  with  $\gcd(|a|, |b|, |c|) = 1$ , then  $|a + b + c + d|$  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 5.001

**Question Number : 28 Question Id : 70819113965 Question Type : SA**

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

माना एक समतल, जो बिन्दुओं  $(1, 2, 6)$  तथा  $(2, 5, 7)$  से होकर जाता है तथा समतल,  $4x - y + z = 15$  के लम्बवत है, का समीकरण  $ax + by + cz + d = 0$  है। यदि  $a, b, c, d \in \mathbb{Z}$  तथा  $\gcd(|a|, |b|, |c|) = 1$  हैं, तो  $|a + b + c + d|$  बराबर है \_\_\_\_\_।

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

5 to 5.001

**Question Number : 29 Question Id : 70819113966 Question Type : SA**

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

The number of real solutions in the interval  $\left[-\frac{3\pi}{2}, \frac{7\pi}{2}\right]$  of the equation  $4\sin^2x - 8\sin x + 3 = 0$  is \_\_\_\_\_.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

5 to 5.001

**Question Number : 29 Question Id : 70819113966 Question Type : SA**

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

अन्तराल  $\left[-\frac{3\pi}{2}, \frac{7\pi}{2}\right]$  में, समीकरण  $4\sin^2x - 8\sin x + 3 = 0$  के वास्तविक हलों की संख्या है \_\_\_\_\_।

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

5 to 5.001

Question Number : 30 Question Id : 70819113967 Question Type : SA

Correct Marks : 4 Wrong Marks : 0

Let  $A_1, A_2, A_3, \dots$  be an increasing geometric progression. If  $\frac{1}{A_4} + \frac{1}{A_8} = \frac{10}{63}$  and  $A_5 A_7 = 441$ , then  $3(A_2 + A_4)$  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 5.001

Question Number : 30 Question Id : 70819113967 Question Type : SA

Correct Marks : 4 Wrong Marks : 0

माना  $A_1, A_2, A_3, \dots$  एक वर्धमान गुणोत्तर श्रेणी है। यदि  $\frac{1}{A_4} + \frac{1}{A_8} = \frac{10}{63}$  तथा  $A_5 A_7 = 441$  हैं, तो  $3(A_2 + A_4)$  बराबर है \_\_\_\_\_।

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

5 to 5.001

## Aptitude Test

<b>Section Id :</b>	708191494
<b>Section Number :</b>	3
<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
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	708191774
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 31 Question Id : 70819113968 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Which among the following is the full form of the 'UNESCO' ?

**Options :**

70819146331. United Nations Educational, Scientific & Cultural Organization.

70819146332. United Nations Educational Security Cultural Organization.

70819146333. United Nations Entrance Site Calling Organization.

70819146334. United Nations Educational, Sustainable & Cultural Organization.

**Question Number : 31 Question Id : 70819113968 Question Type : MCQ Option Shuffling : Yes**

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

निम्न में से 'UNESCO' का पूर्ण रूप (Full form) कौन सा है ?

Options :

70819146331. युनाइटेड नेशंस एडुकेशनल, साइंटिफिक तथा कल्चरल ऑरगनाइजेशन

70819146332. युनाइटेड नेशंस एडुकेशनल सिव्योरिटी कल्चरल ऑरगनाइजेशन

70819146333. युनाइटेड नेशंस एंट्रैन्स साइट कालिंग ऑरगनाइजेशन

70819146334. युनाइटेड नेशंस एडुकेशनल, सस्टेनेबल तथा कल्चरल ऑरगनाइजेशन

Question Number : 32 Question Id : 70819113969 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

List - I

List - II

(I) Hall of Nation

(a)



(II) Falling Water, Pennsylvania

(b)



(III) Petronas Tower

(c)



(IV) Secretariat

(d)



Options :

70819146335. (I)-(b), (II)-(a), (III)-(d), (IV)-(c)

70819146336. (I)-(c), (II)-(d), (III)-(a), (IV)-(b)

70819146337. (I)-(a), (II)-(b), (III)-(c), (IV)-(d)

Question Number : 32 Question Id : 70819113969 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

निम्न सूची I को सूची II से मिलाइये।  
सूची I

सूची II

(I) हॉल ऑफ नेशन

(a)



(II) फालिंग वॉटर, पेनसिलवानिया

(b)



(III) पेट्रोनास टॉवर

(c)



(IV) सचिवालय

(d)



**Options :**

70819146335. (I)-(b), (II)-(a), (III)-(d), (IV)-(c)

70819146336. (I)-(c), (II)-(d), (III)-(a), (IV)-(b)

70819146337. (I)-(a), (II)-(b), (III)-(c), (IV)-(d)

70819146338. (I)-(b), (II)-(a), (III)-(c), (IV)-(d)

**Question Number : 33 Question Id : 70819113970 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

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

List - I	List - II
(I) Kamru	(a) Victoria Memorial Hall
(II) Delhi	(b) Badrinath Temple
(III) Fatehpur Sikri	(c) Khirki Masjid
(IV) Kolkata	(d) Buland Darwaja

**Options :**

70819146339. (I)-(b), (II)-(c), (III)-(d), (IV)-(a)

70819146340. (I)-(b), (II)-(d), (III)-(c), (IV)-(a)

70819146341. (I)-(c), (II)-(a), (III)-(b), (IV)-(d)

70819146342. (I)-(b), (II)-(a), (III)-(d), (IV)-(c)

**Question Number : 33 Question Id : 70819113970 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

Correct Marks : 4 Wrong Marks : 1

निम्न सूची I को सूची II से मिलाइये।

सूची I	सूची II
(I) कामरू	(a) विक्टोरिया मेमोरियल हॉल
(II) दिल्ली	(b) बद्रीनाथ मंदिर
(III) फतेहपुर सीकरी	(c) खिड़की मस्जिद
(IV) कोलकाता	(d) बुलन्द दरवाजा

Options :

70819146339. (I)-(b), (II)-(c), (III)-(d), (IV)-(a)

70819146340. (I)-(b), (II)-(d), (III)-(c), (IV)-(a)

70819146341. (I)-(c), (II)-(a), (III)-(b), (IV)-(d)

70819146342. (I)-(b), (II)-(a), (III)-(d), (IV)-(c)

Question Number : 34 Question Id : 70819113971 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

List - I

List - II

(I) Agra fort

(a)



(II) Atala Masjid

(b)



(III) Nalanda University

(c)



(IV) Jagannatha Temple

(d)



Options :

70819146343. (I)-(b), (II)-(c), (III)-(a), (IV)-(d)

70819146344. (I)-(a), (II)-(b), (III)-(c), (IV)-(d)

70819146345. (I)-(c), (II)-(a), (III)-(d), (IV)-(b)

70819146346. (I)-(b), (II)-(a), (III)-(c), (IV)-(d)

Question Number : 34 Question Id : 70819113971 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

निम्न सूची I को सूची II से मिलाइये।  
सूची I

सूची II

(I) आगरा का किला

(a)



(II) अटाला मस्जिद

(b)



(III) नालन्दा विश्वविद्यालय

(c)



(IV) जगन्नाथ मन्दिर

(d)



Options :

70819146343. (I)-(b), (II)-(c), (III)-(a), (IV)-(d)

70819146344. (I)-(a), (II)-(b), (III)-(c), (IV)-(d)

70819146345. (I)-(c), (II)-(a), (III)-(d), (IV)-(b)

70819146346. (I)-(b), (II)-(a), (III)-(c), (IV)-(d)

**Question Number : 35 Question Id : 70819113972 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Match List - I with List - II.

List - I		List - II	
(I)	Yadvindra Garden	(a)	Manali
(II)	Vishnu Temple	(b)	Amritsar
(III)	Hidimba Temple	(c)	Pinjore
(IV)	Hari Mandir	(d)	Buniyar

**Options :**

70819146347. (I)-(c), (II)-(d), (III)-(b), (IV)-(a)

70819146348. (I)-(c), (II)-(d), (III)-(a), (IV)-(b)

70819146349. (I)-(d), (II)-(b), (III)-(c), (IV)-(a)

70819146350. (I)-(b), (II)-(d), (III)-(a), (IV)-(c)

**Question Number : 35 Question Id : 70819113972 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

निम्न सूची I को सूची II से मिलाइये।

सूची I	सूची II
(I) यादविन्द्र गार्डन	(a) मनाली
(II) विष्णु मन्दिर	(b) अमृतसर
(III) हिडिम्बा मन्दिर	(c) पिंजोर
(IV) हरि मन्दिर	(d) बुनियर

**Options :**

70819146347. (I)-(c), (II)-(d), (III)-(b), (IV)-(a)

70819146348. (I)-(c), (II)-(d), (III)-(a), (IV)-(b)

70819146349. (I)-(d), (II)-(b), (III)-(c), (IV)-(a)

70819146350. (I)-(b), (II)-(d), (III)-(a), (IV)-(c)

**Question Number : 36 Question Id : 70819113973 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Match List - I with List - II.

List - I	List - II
(I) Mehrangarh Fort	(a) Hyderabad
(II) Siri Fort	(b) Kolkata
(III) Golconda Fort	(c) Delhi
(IV) Fort William	(d) Jodhpur

Choose the correct answer from options given below :

**Options :**

70819146351. (I)-(a), (II)-(d), (III)-(b), (IV)-(c)

70819146352. (I)-(d), (II)-(c), (III)-(a), (IV)-(b)

70819146353. (I)-(d), (II)-(c), (III)-(b), (IV)-(a)

**Question Number : 36 Question Id : 70819113973 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

निम्न सूची I को सूची II से मिलाइये।

सूची I	सूची II
(I) मेहरानगढ़ किला	(a) हैदराबाद
(II) सीरी फोर्ट	(b) कोलकाता
(III) गोलकोंडा किला	(c) दिल्ली
(IV) फोर्ट विलियम	(d) जोधपुर

नीचे दिए विकल्पों में से सही उत्तर चुनिये।

**Options :**

70819146351. (I)-(a), (II)-(d), (III)-(b), (IV)-(c)

70819146352. (I)-(d), (II)-(c), (III)-(a), (IV)-(b)

70819146353. (I)-(d), (II)-(c), (III)-(b), (IV)-(a)

70819146354. (I)-(a), (II)-(b), (III)-(d), (IV)-(c)

**Question Number : 37 Question Id : 70819113974 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Book 'God of small things' is written by which Indian Architect ?

**Options :**

70819146355. B.V. Doshi

70819146356. Arundhati Roy

70819146357. Revati Kamat

70819146358. Bimal Patel

**Question Number : 37 Question Id : 70819113974 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

'गॉड ऑफ स्माल थिंग्स' पुस्तक को किस भारतीय वास्तुशिल्पी ने लिखा है ?

**Options :**

70819146355. बी.वी. दोशी

70819146356. अरुंधती राय

70819146357. रेवती कामत

70819146358. बिमल पटेल

**Question Number : 38 Question Id : 70819113975 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

'Jharokha' is a type of window mostly found in :

**Options :**

70819146359. Gujarat

70819146360. West Bengal

70819146361. Tamil Nadu

**Question Number : 38 Question Id : 70819113975 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

‘झरोखा’ खिड़की का एक प्रकार, निम्न में से अक्सर किस प्रान्त में पाया जाता है ?

**Options :**

70819146359. गुजरात

70819146360. पश्चिम बंगाल

70819146361. तमिलनाडु

70819146362. राजस्थान

**Question Number : 39 Question Id : 70819113976 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

The monsoon wind enters in Indian sub-continent from which direction ?

**Options :**

70819146363. North-West side

70819146364. South-East side

70819146365. North side

70819146366. South-West side

Question Number : 39 Question Id : 70819113976 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

भारत उपमहाद्वीप में मौनसून हवा किस दिशा से प्रवेश करती है ?

Options :

70819146363. उत्तर-पश्चिम दिशा

70819146364. दक्षिण-पूर्व दिशा

70819146365. उत्तर दिशा

70819146366. दक्षिण-पश्चिम दिशा

Question Number : 40 Question Id : 70819113977 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following building represents the colonial Architectural pattern in India ?

Options :

70819146367. Bharat Bhavan in Bhopal

70819146368. LIC Building in Delhi


70819146369. Charminar in Hyderabad

70819146370. Victoria Memorial in Kolkata

Question Number : 40 Question Id : 70819113977 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

निम्न में से कौनसी इमारत, भारत में 'औपनिवेशिक वास्तु' संबंधी ढंग दर्शाती है?  find my college

**Options :**

70819146367. भोपाल का भारत भवन

70819146368. दिल्ली की LIC इमारत

70819146369. हैदराबाद का चारमिनार

70819146370. कोलकाता का विक्टोरिया मेमोरियल

**Question Number : 41 Question Id : 70819113978 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

What is the size of A2 Drawing sheet ?

**Options :**

70819146371.  $420 \times 590$  (mm  $\times$  mm)

70819146372.  $420 \times 594$  (mm  $\times$  mm)

70819146373.  $297 \times 420$  (mm  $\times$  mm)

70819146374.  $420 \times 592$  (mm  $\times$  mm)

**Question Number : 41 Question Id : 70819113978 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

A2 ड्राइंग शीट का आकार है :

**Options :**

70819146371. 420 × 590 (mm × mm)

70819146372. 420 × 594 (mm × mm)

70819146373. 297 × 420 (mm × mm)

70819146374. 420 × 592 (mm × mm)

**Question Number : 42 Question Id : 70819113979 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Victory Tower belongs to which of the following fort :

**Options :**

70819146375. Chittor fort

70819146376. Jaigarh fort

70819146377. Bhangarh fort

70819146378. Amer fort

**Question Number : 42 Question Id : 70819113979 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

‘विक्टरी टॉवर’ निम्न में से किस फोर्ट से सम्बंधित है ?

**Options :**

70819146375. चित्तौड़ फोर्ट

70819146376. जयगढ़ फोर्ट

70819146377. भानगढ़ फोर्ट

70819146378. आमेर फोर्ट

**Question Number : 43 Question Id : 70819113980 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Which amongst the following Architect has designed the famous Temple "Akshardham" ?

**Options :**

70819146379. Sanjay Puri

70819146380. Vikram Lall

70819146381. Ashok Lall

70819146382. C. Sompura

**Question Number : 43 Question Id : 70819113980 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

सुप्रसिद्ध मन्दिर 'अक्षरधाम' की रूपरेखा निम्न में से किस वास्तुशिल्पी ने बनाई ?

**Options :**

70819146379. संजय पुरी

70819146380. विक्रम लाल

70819146381. अशोक लाल

70819146382. सी. सोमपुरा

**Question Number : 44 Question Id : 70819113981 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

'Volume Zero' Documentary is on which Architect ?

**Options :**

70819146383. Charles Correa

70819146384. Richard Mier

70819146385. Jasbir Sachdev

70819146386. Ranjit Sabliki

**Question Number : 44 Question Id : 70819113981 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

'वालयूम ज़ीरो' वृत्तचित्र निम्न में से किस वास्तुशिल्पी पर आधारित है ?

**Options :**

70819146383. चार्ल्स कोरिया

70819146384. रिचर्ड मीयर

70819146385. जसबीर सचदेव

70819146386. रंजीत सबलीकी

Question Number : 45 Question Id : 70819113982 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

'Agenda 21' is declaration related with :

Options :

70819146387. Climate change

70819146388. Global warming

70819146389. Sustainable development

70819146390. Smart city

Question Number : 45 Question Id : 70819113982 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

घोषणा 'एजेन्डा- 21' निम्न में से किस से संबन्धित है?

Options :

70819146387. जलवायु परिवर्तन

70819146388. वैश्विक वार्मिंग

70819146389. संधारणीय विकास

70819146390. स्मार्ट सिटी

Question Number : 46 Question Id : 70819113983 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Gold mines are situated in which state of India ?

Options :

70819146391. Karnataka

70819146392. Orissa

70819146393. Maharashtra

70819146394. Uttar Pradesh

Question Number : 46 Question Id : 70819113983 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

निम्न में से भारत के किस प्रांत में सोने की खाने हैं ?

Options :

70819146391. कर्नाटक

70819146392. ओड़ीशा

70819146393. महाराष्ट्र

70819146394. उत्तर प्रदेश

Question Number : 47 Question Id : 70819113984 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In the Southern Hemisphere shadowless light is from which direction ?

**Options :**

70819146395. North

70819146396. South

70819146397. East

70819146398. West

**Question Number : 47 Question Id : 70819113984 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

दक्षिण गोलार्द्ध में परछाई रहित प्रकाश किस दिशा से आता है ?

**Options :**

70819146395. उत्तर

70819146396. दक्षिण

70819146397. पूर्व

70819146398. पश्चिम

**Question Number : 48 Question Id : 70819113985 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

The first Indian Architect who has won Pritzker Prize in 2018 is :

**Options :**

70819146399. B.V. Doshi

70819146400. Laurie Baker

70819146401. Raj Rewal

70819146402. Achyut Kanvinde

**Question Number : 48 Question Id : 70819113985 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

पहला भारतीय वास्तुशिल्पी, जिसने 2018 में प्रिτζकर इनाम जीता है :

**Options :**

70819146399. बी.वी. दोशी

70819146400. लॉरी बेकर

70819146401. राज रेवाल

70819146402. अच्युत कानविन्दे

**Question Number : 49 Question Id : 70819113986 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Word "Bungalow" has originated from :

**Options :**

70819146403. Bengalurm

70819146404. Banaras

70819146405. Bengal

70819146406. Bari

**Question Number : 49 Question Id : 70819113986 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

'बंगलो' (Bungalow) शब्द का उद्गम निम्न में से किस से हुआ ?

**Options :**

70819146403. बेंगालुरम (Bengalurm)

70819146404. बनारस (Banaras)

70819146405. बंगाल (Bengal)

70819146406. बारी (Bari)

**Question Number : 50 Question Id : 70819113987 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

The IIM - Ahmedabad is designed by which of the following Architect ?

**Options :**

70819146407. Laurie Baker

70819146408. Louis Kahn

**Question Number : 50 Question Id : 70819113987 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

निम्न में से किस वास्तुशिल्पी द्वारा IIM अहमदाबाद की रूपरेखा बनाई गई ?

**Options :**

70819146407. लॉरी बेकर

70819146408. लुई कान

70819146409. ल्युटेन

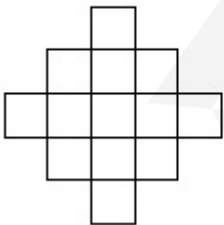
70819146410. ली कोर्बुज़िर

**Question Number : 51 Question Id : 70819113988 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

In the given figure, how many squares are present ?



**Options :**

70819146411. 14

70819146412. 13

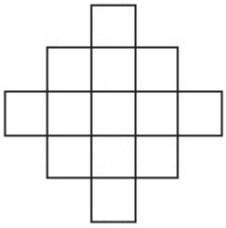
70819146413. 15

70819146414. 18

**Question Number : 51 Question Id : 70819113988 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No**

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

नीचे दी गई आकृति में, वर्गों की संख्या है :



**Options :**

70819146411. 14

70819146412. 13

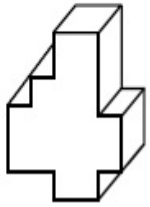
70819146413. 15

70819146414. 18

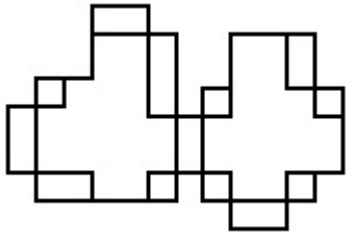
**Question Number : 52 Question Id : 70819113989 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No**

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

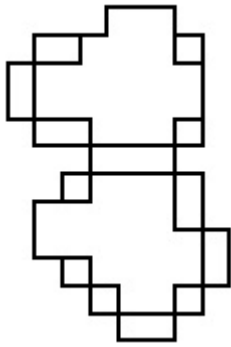
A drawing is provided with all the folds to construct the following three Dimensional object.  
Select the correct one.



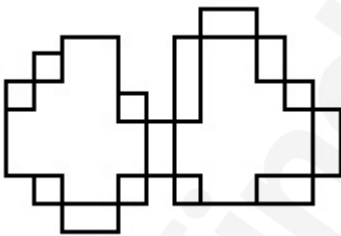
Options :



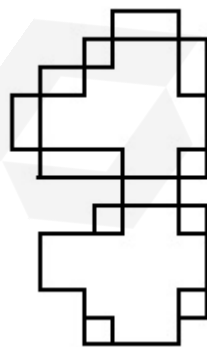
70819146415.



70819146416.



70819146417.



70819146418.

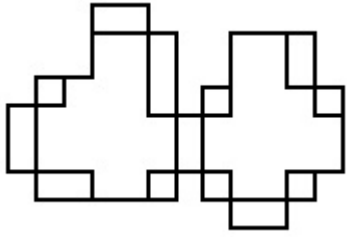
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

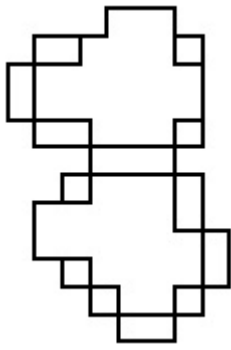
निम्न 3D आकृति को बनाने के लिए, सभी मोड़ों सहित एक ड्रॉइंग दी गई है। सही एक को चुनिए।



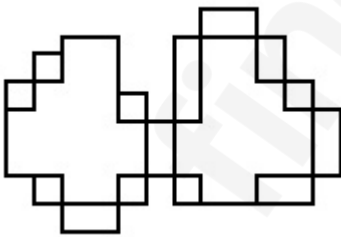
Options :



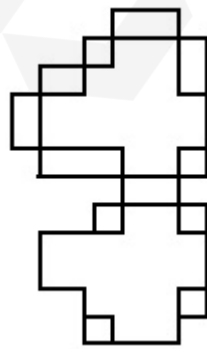
70819146415.



70819146416.



70819146417.



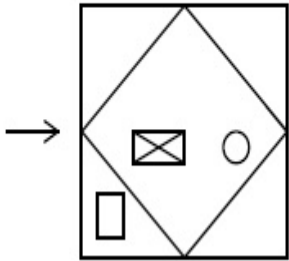
70819146418.

Question Number : 53 Question Id : 70819113990 Question Type : MCQ Option Shuffling : Yes

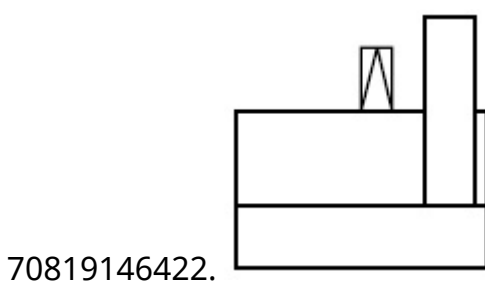
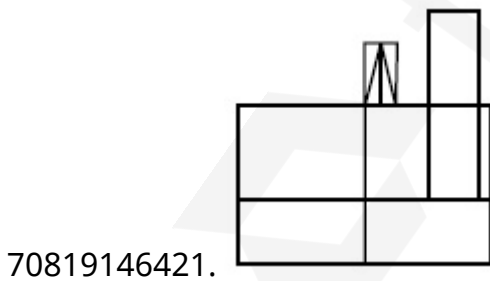
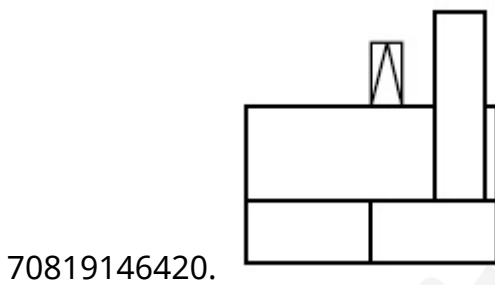
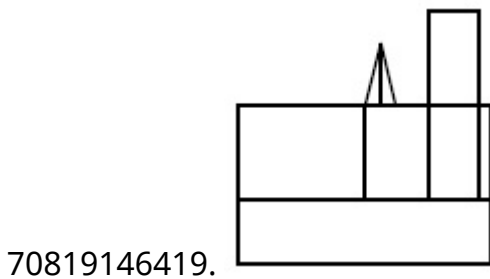
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The problem figure shows the top view of an object. Identify the correct view looking in the direction of arrow, amongst the answer figures.



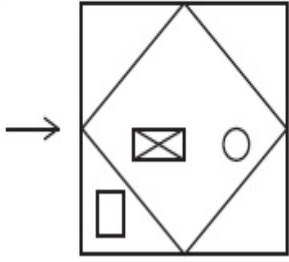
Options :



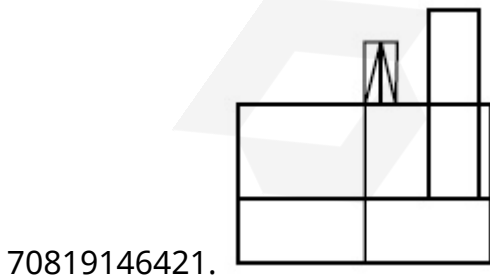
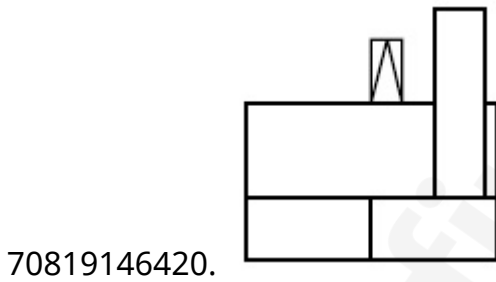
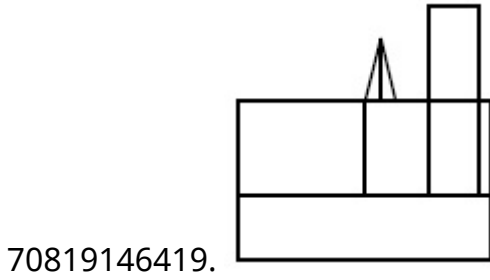
Question Number : 53 Question Id : 70819113990 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

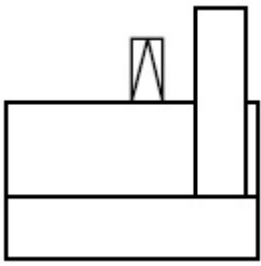
नीचे दी गई प्रश्न आकृति एक वस्तु के ऊपरी दृश्य को दर्शाती है। उत्तर आकृतियों में से, तीर की दिशा में देखते हुए सही दृश्य को चुनिये।



Options :



70819146422.

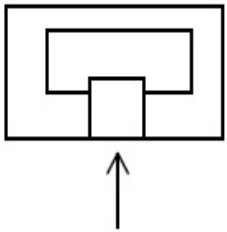


Question Number : 54 Question Id : 70819113991 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

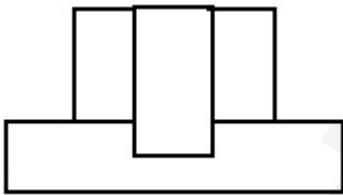
Correct Marks : 4 Wrong Marks : 1

The problem figure shows the top view of an object. Identify the correct elevation amongst the answer figures looking in the direction of arrow.

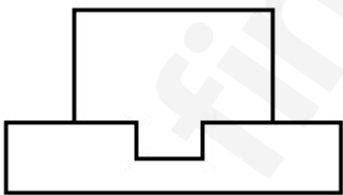


Options :

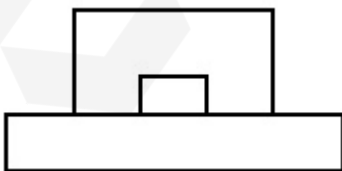
70819146423.



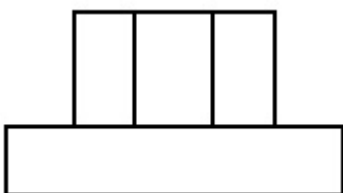
70819146424.



70819146425.



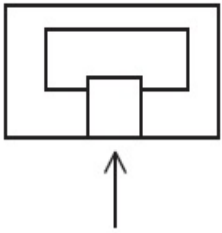
70819146426.



**Question Number : 54 Question Id : 70819113991 Question Type : MCQ Option Shuffling : Yes**  
**Is Question Mandatory : No**

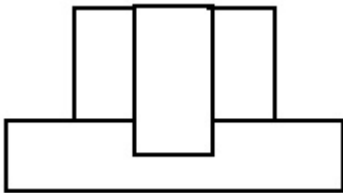
**Correct Marks : 4 Wrong Marks : 1**

निम्न प्रश्न आकृति एक वस्तु के ऊपरी दृश्य को दर्शाती है। तीर की दिशा में देखते हुए, दी गई उत्तर आकृतियों में से सही एलीवेशन (elevation) को पहचानिए।

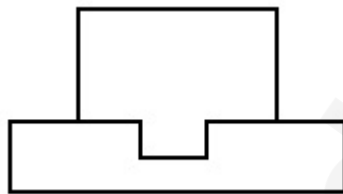


**Options :**

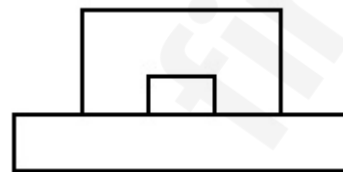
70819146423.



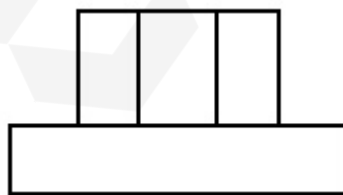
70819146424.



70819146425.



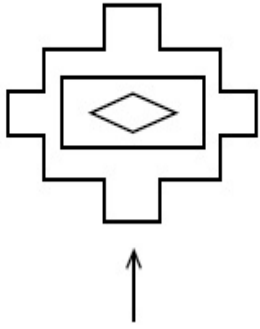
70819146426.



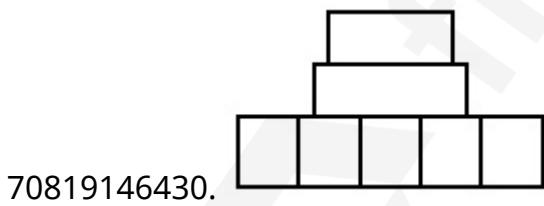
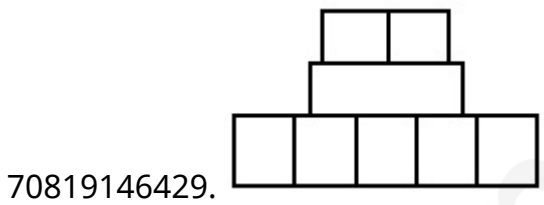
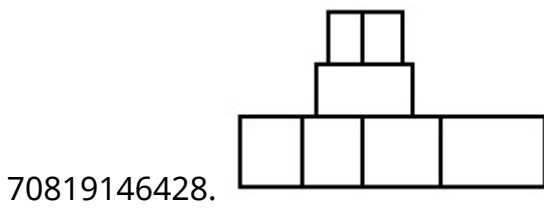
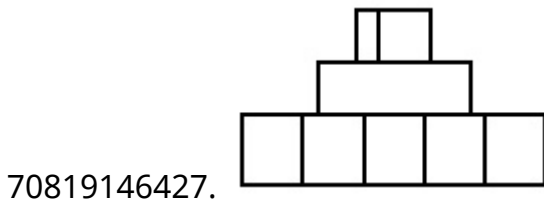
**Question Number : 55 Question Id : 70819113992 Question Type : MCQ Option Shuffling : Yes**  
**Is Question Mandatory : No**

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

The problem figure shows the top view of an object. Identify the correct elevation amongst the answer figures looking in the direction of arrow.



**Options :**

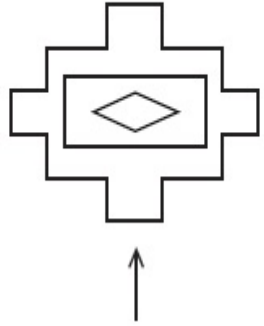


**Question Number : 55 Question Id : 70819113992 Question Type : MCQ Option Shuffling : Yes**

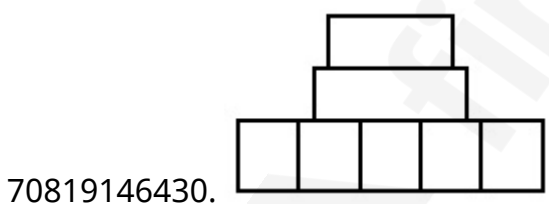
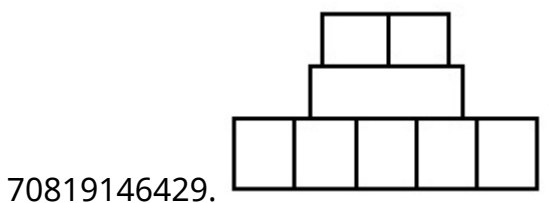
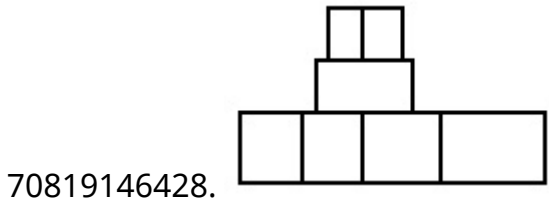
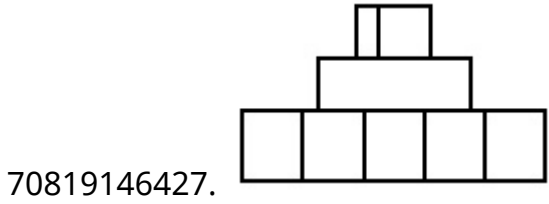
**Is Question Mandatory : No**

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

प्रश्न आकृति में एक वस्तु के ऊपरी दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, उत्तर आकृति में प्रस्तुत की गई एलीवेशन (elevation) को पहचानिए।

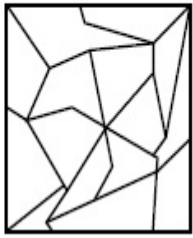


Options :





Question Number : 56 Question Id : 70819113993 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No  
Correct Marks : 4 Wrong Marks : 1


One of the following answer figures is hidden in problem figure in same size and direction.  
Select correct one.




Options :

70819146431. 

70819146432. 

70819146433. 

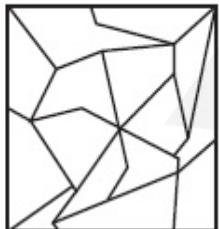
70819146434. 

Question Number : 56 Question Id : 70819113993 Question Type : MCQ Option Shuffling : Yes


Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

निम्न में से एक उत्तर चित्र उसी आकार तथा दिशा में प्रश्न चित्र में छिपा हुआ है। सही उत्तर को चुनिये।



Options :

70819146431. 

70819146432.



70819146433.



70819146434.

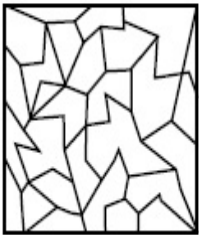


**Question Number : 57 Question Id : 70819113994 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

One of the following answer figures is hidden in problem figure in the same size and direction.  
Select correct one.



**Options :**

70819146435.



70819146436.



70819146437.



70819146438.



Question Number : 57 Question Id : 70819113994 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

निम्न में से एक उत्तर चित्र उसी आकार तथा दिशा में प्रश्न चित्र में छिपा हुआ है। सही उत्तर को चुनिये।



Options :

70819146435.

70819146436.

70819146437.

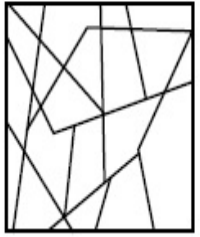
70819146438.

Question Number : 58 Question Id : 70819113995 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No


Correct Marks : 4 Wrong Marks : 1


One of the following answer figures is hidden in the problem figure in same size and direction. Select the correct one.




Options :

70819146439.

70819146440. 

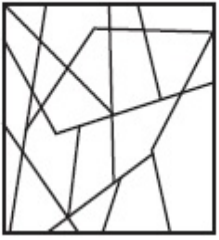
70819146441. 

70819146442. 


**Question Number : 58 Question Id : 70819113995 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No**


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


निम्न में से एक उत्तर चित्र उसी आकार तथा दिशा में प्रश्न चित्र में छिपा हुआ है। सही उत्तर को चुनिये।




**Options :**

70819146439. 

70819146440. 

70819146441. 

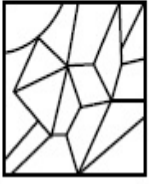
70819146442. 

**Question Number : 59 Question Id : 70819113996 Question Type : MCQ Option Shuffling : Yes**


Is Question Mandatory : No


Correct Marks : 4 Wrong Marks : 1


One of the following answer figures is hidden in the problem figure in same size and direction.  
Select the correct one.




Options :

70819146443. 

70819146444. 

70819146445. 

70819146446. 

Question Number : 59 Question Id : 70819113996 Question Type : MCQ Option Shuffling : Yes


Is Question Mandatory : No


Correct Marks : 4 Wrong Marks : 1


निम्न में से एक उत्तर चित्र उसी आकार तथा दिशा में प्रश्न चित्र में छिपा हुआ है। सही उत्तर को चुनिये।




Options :

70819146443. 

70819146444. 

70819146445. 

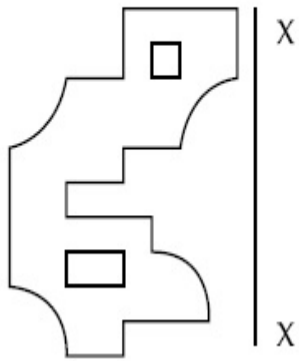
70819146446. 

**Question Number : 60 Question Id : 70819113997 Question Type : MCQ Option Shuffling : Yes**

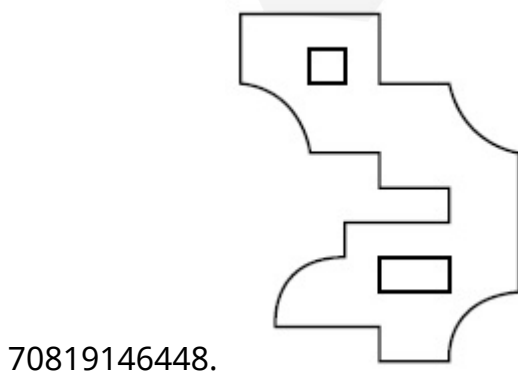
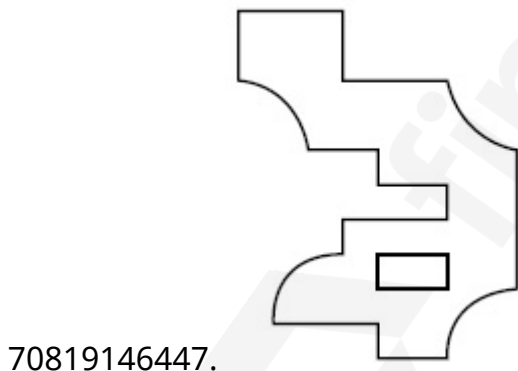
**Is Question Mandatory : No**

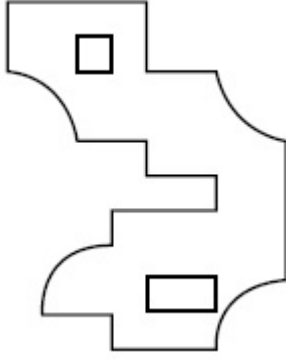
**Correct Marks : 4 Wrong Marks : 1**

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

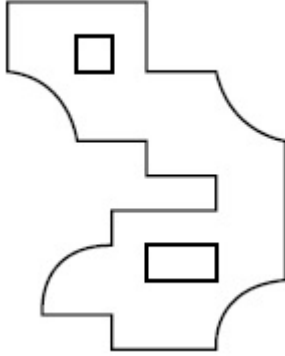


**Options :**





70819146449.



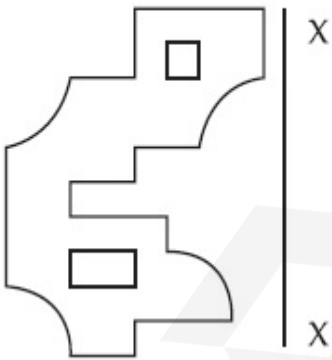
70819146450.

Question Number : 60 Question Id : 70819113997 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

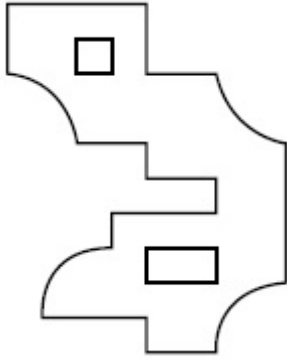
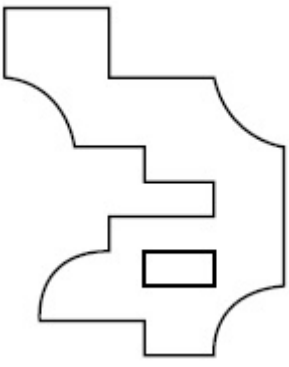
Correct Marks : 4 Wrong Marks : 1

उत्तर आकृतियों में से कौन सी आकृति दी गई प्रश्न आकृति का X-X के सापेक्ष सही प्रतिबिम्ब है ?

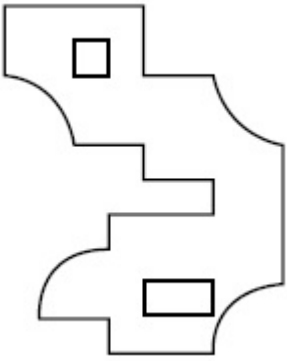


Options :

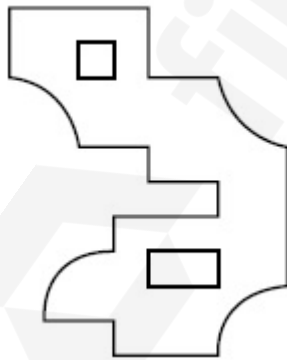
70819146447.



70819146448.



70819146449.



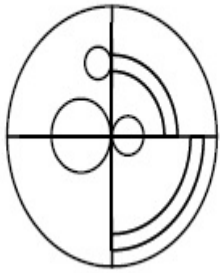
70819146450.

Question Number : 61 Question Id : 70819113998 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

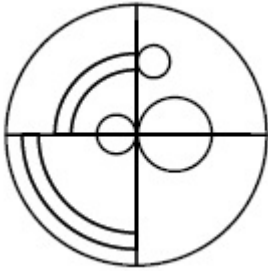
Correct Marks : 4 Wrong Marks : 1

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

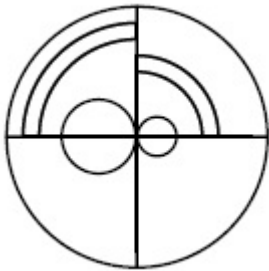


X ————— X

Options :



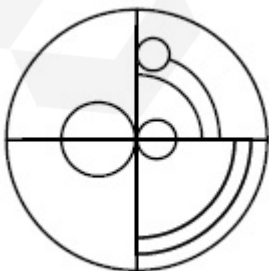
70819146451.



70819146452.



70819146453.



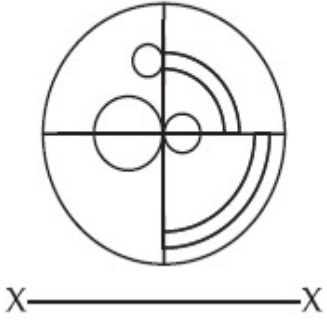
70819146454.

Question Number : 61 Question Id : 70819113998 Question Type : MCQ Option Shuffling : Yes

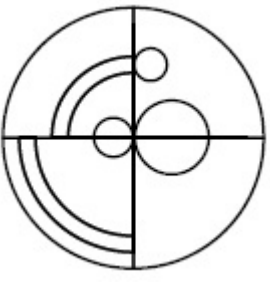
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

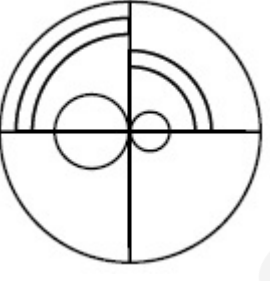
उत्तर आकृतियों में से कौन सी आकृति दी गई प्रश्न आकृति का X-X के सापेक्ष सही प्रतिबिम्ब है ?



Options :



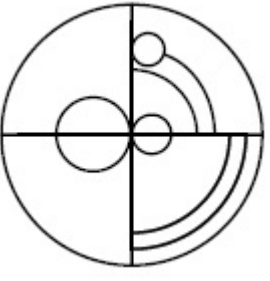
70819146451.



70819146452.



70819146453.

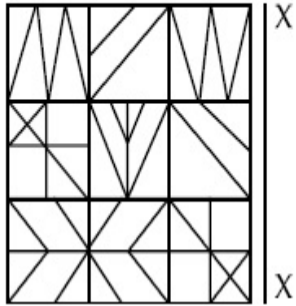


70819146454.

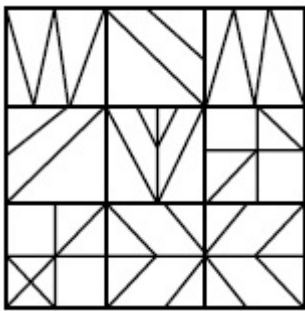
Question Number : 62 Question Id : 70819113999 Question Type : MCQ Option Shuffling : Yes  
 Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

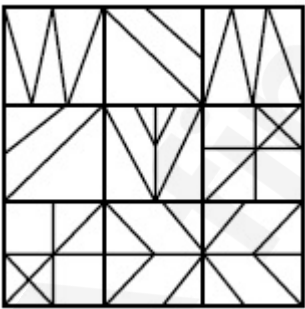
Which one of the answer figures is the correct mirror image of the problem figure with respect to X-X ?



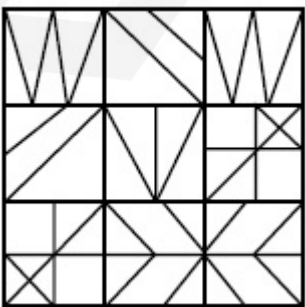
Options :



70819146455.

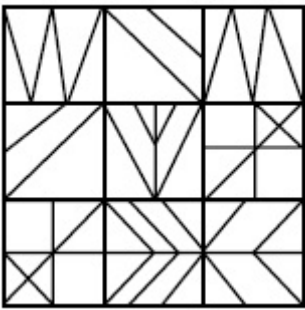


70819146456.



70819146457.

70819146458.

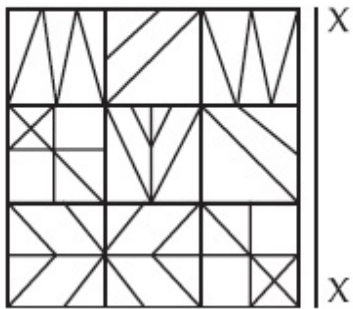


Question Number : 62 Question Id : 70819113999 Question Type : MCQ Option Shuffling : Yes

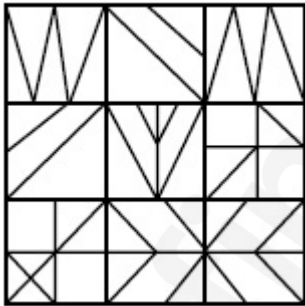
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

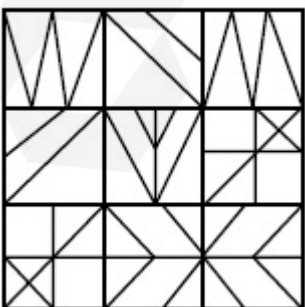
उत्तर आकृतियों में से कौन सी आकृति दी गई प्रश्न आकृति का X-X के सापेक्ष सही प्रतिबिम्ब है ?



Options :

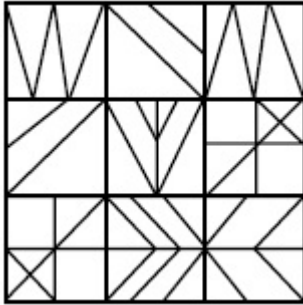
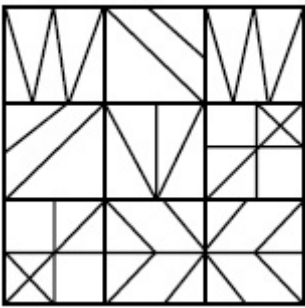


70819146455.



70819146456.

70819146457.



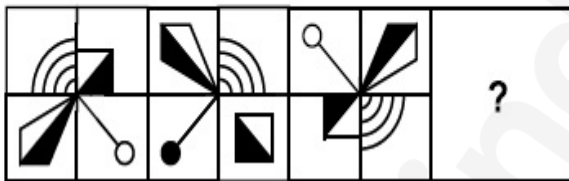
70819146458.

Question Number : 63 Question Id : 70819114000 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which one of the answer figures complete the sequence of the problem figure ? Select the correct one.



Options :



70819146459.



70819146460.

70819146461.



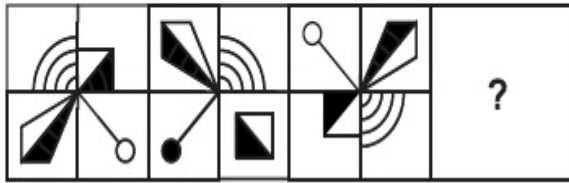
70819146462.

Question Number : 63 Question Id : 70819114000 Question Type : MCQ Option Shuffling : Yes

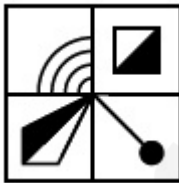
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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



Options :



70819146459.



70819146460.



70819146461.

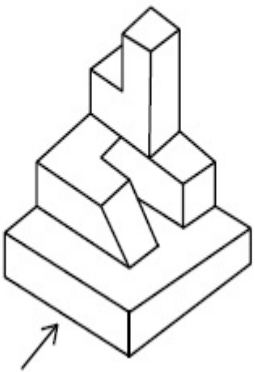


70819146462.

**Question Number : 64 Question Id : 70819114001 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

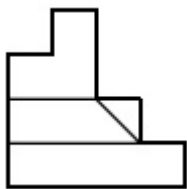
**Correct Marks : 4 Wrong Marks : 1**

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

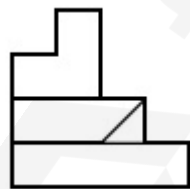


**Options :**

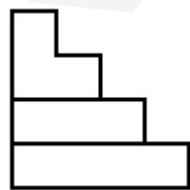
70819146463.



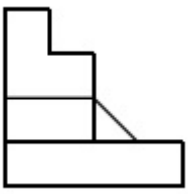
70819146464.



70819146465.



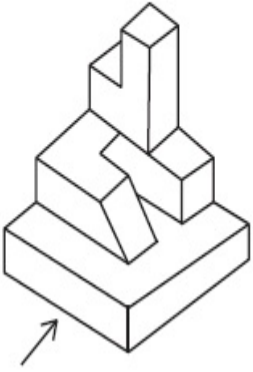
70819146466.



Question Number : 64 Question Id : 70819114001 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No

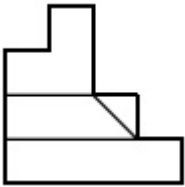
Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य को उत्तर आकृतियों में से पहचानिए।



Options :

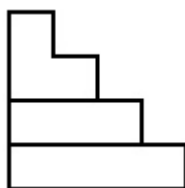
70819146463.



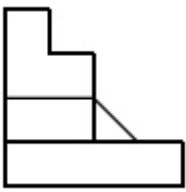
70819146464.



70819146465.



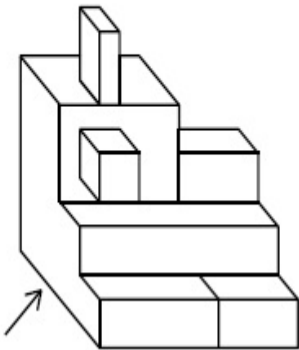
70819146466.



**Question Number : 65 Question Id : 70819114002 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No**

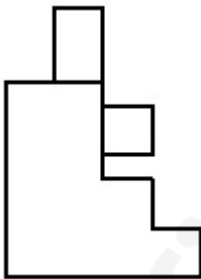
**Correct Marks : 4 Wrong Marks : 1**

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

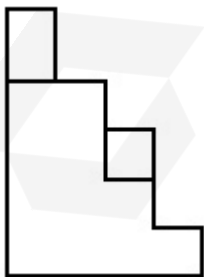


**Options :**

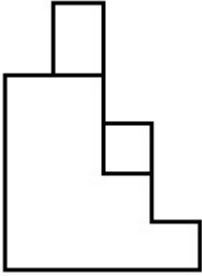
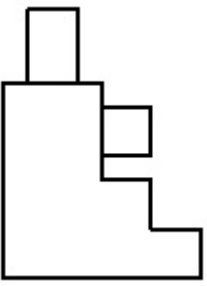
70819146467.



70819146468.



70819146469.



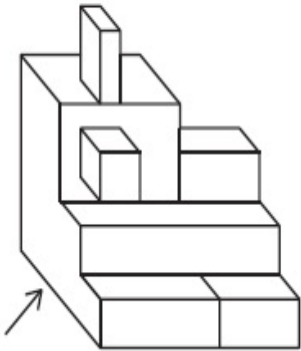
70819146470.

Question Number : 65 Question Id : 70819114002 Question Type : MCQ Option Shuffling : Yes

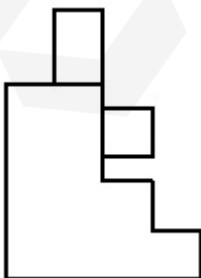
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य को उत्तर आकृतियों में से पहचानिए।

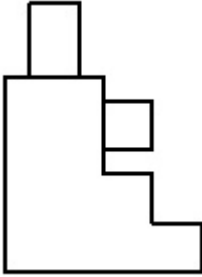
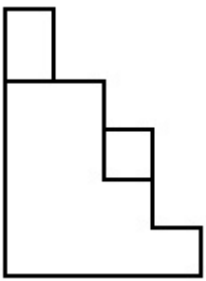


Options :

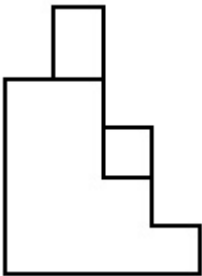


70819146467.

70819146468.



70819146469.

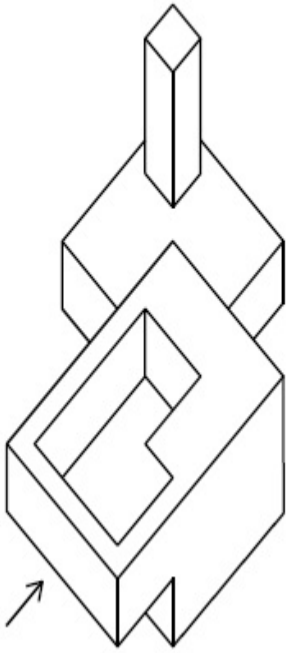


70819146470.

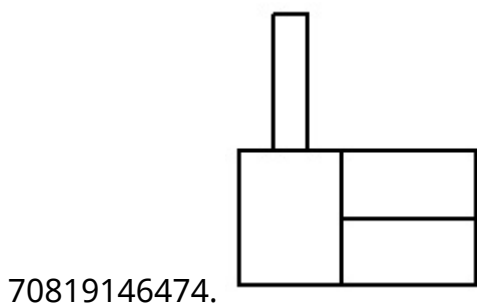
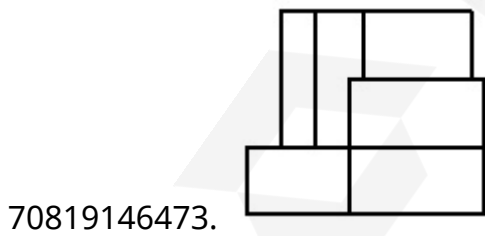
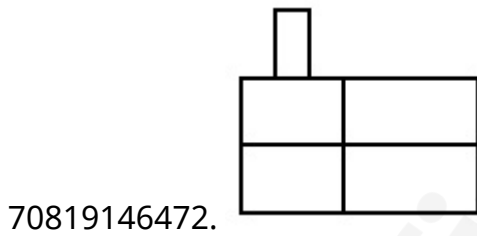
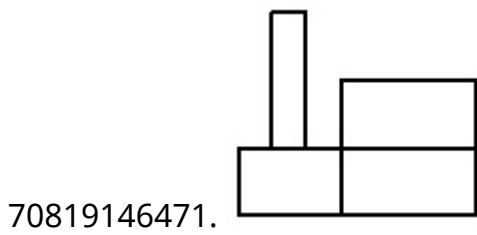
**Question Number : 66 Question Id : 70819114003 Question Type : MCQ Option Shuffling : Yes**  
**Is Question Mandatory : No**  
**Correct Marks : 4 Wrong Marks : 1**



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



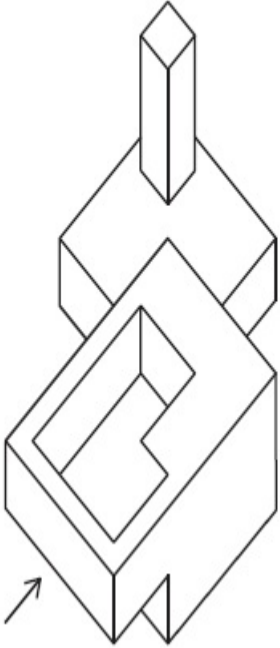
Options :



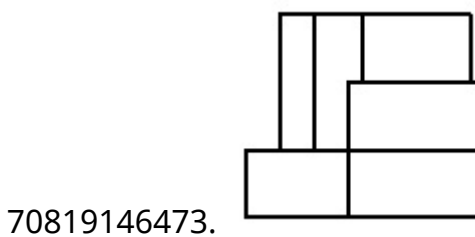
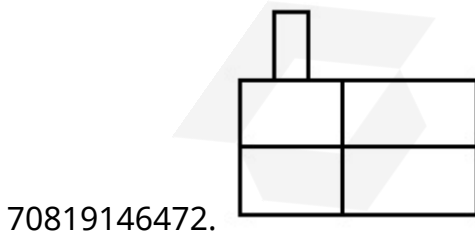
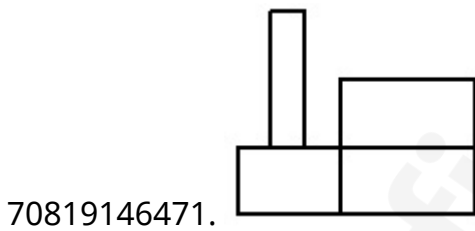
Question Number : 66 Question Id : 70819114003 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No

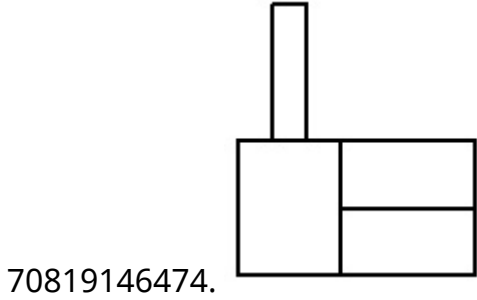
Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य को उत्तर आकृतियों में से पहचानिए।



Options :

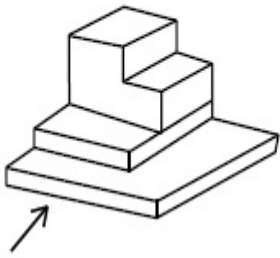




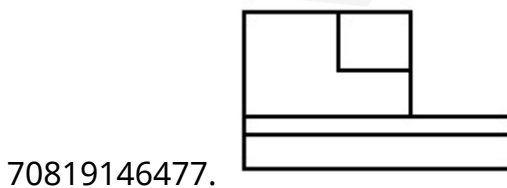
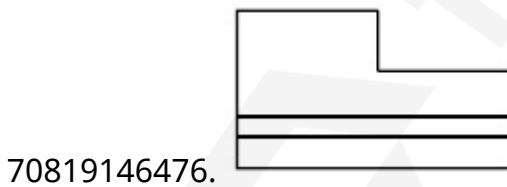
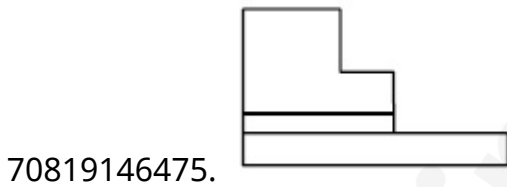
**Question Number : 67 Question Id : 70819114004 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

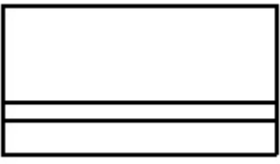
The 3D figure shows the view of an object. Identify the correct view looking in the direction of arrow, amongst the answer figures.



**Options :**



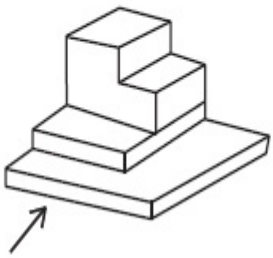
70819146478.



Question Number : 67 Question Id : 70819114004 Question Type : MCQ Option Shuffling : Yes  
Is Question Mandatory : No

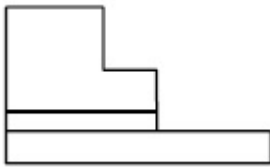
Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य को उत्तर आकृतियों में से पहचानिए।



Options :

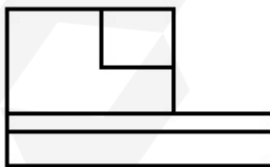
70819146475.



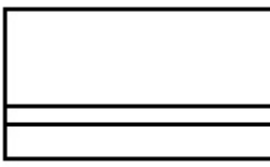
70819146476.



70819146477.



70819146478.

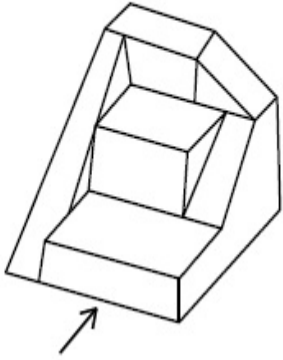


Question Number : 68 Question Id : 70819114005 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

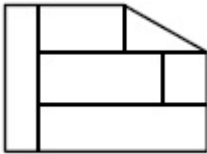
Correct Marks : 4 Wrong Marks : 1

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

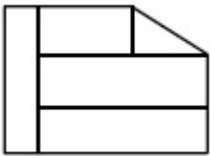


Options :

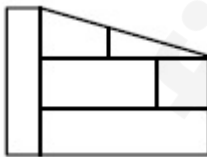
70819146479.



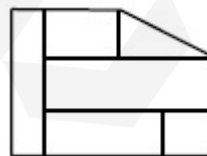
70819146480.



70819146481.



70819146482.

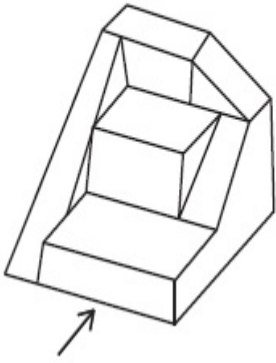


Question Number : 68 Question Id : 70819114005 Question Type : MCQ Option Shuffling : Yes

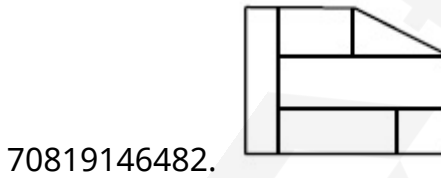
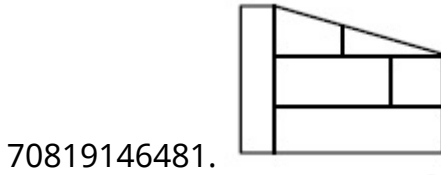
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य को उत्तर आकृतियों में से पहचानिए।



Options :

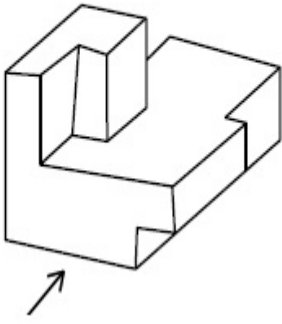


Question Number : 69 Question Id : 70819114006 Question Type : MCQ Option Shuffling : Yes

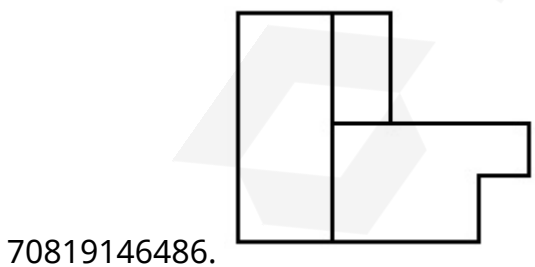
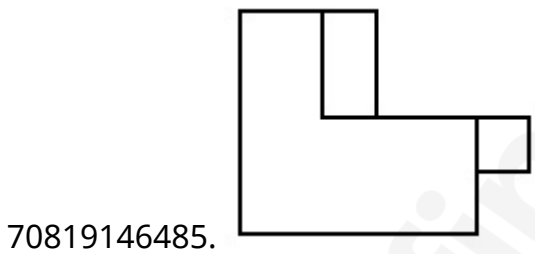
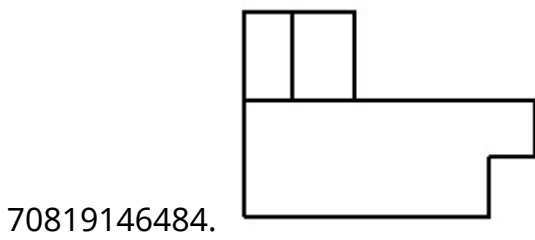
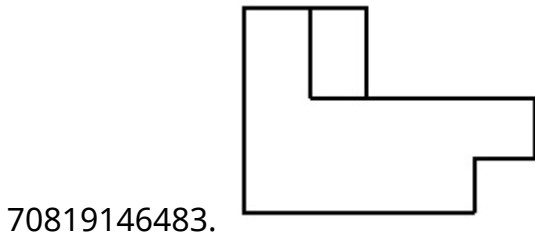
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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



Options :

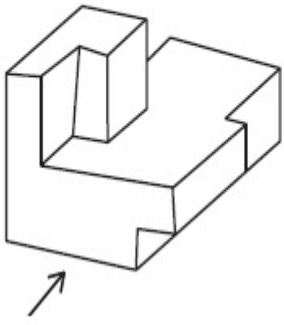


Question Number : 69 Question Id : 70819114006 Question Type : MCQ Option Shuffling : Yes

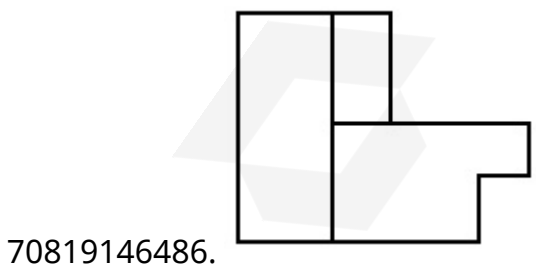
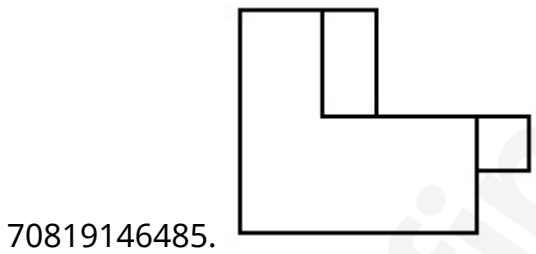
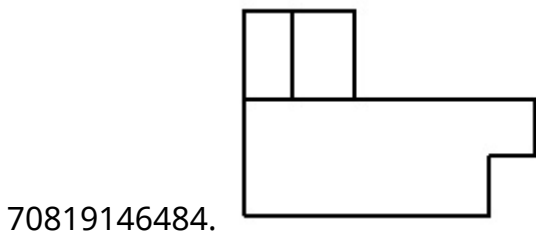
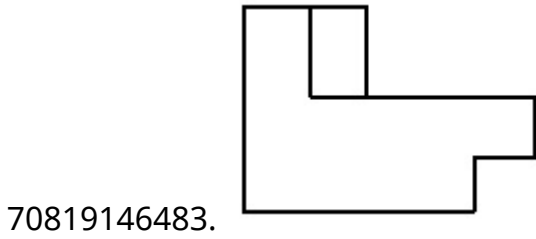
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य के विकल्पों में से पहचानिए।

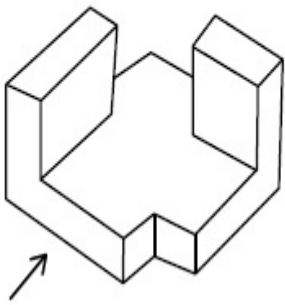


Options :

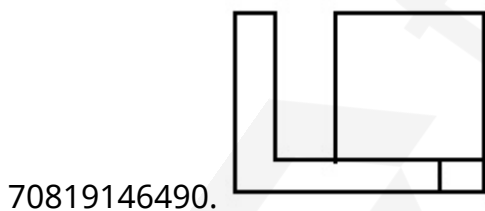
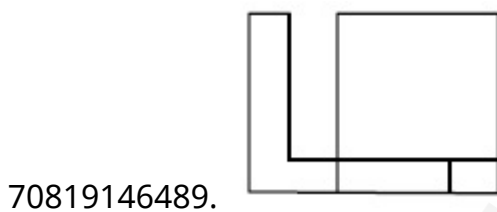
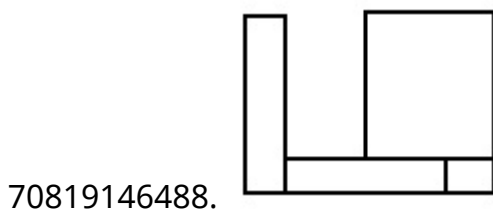
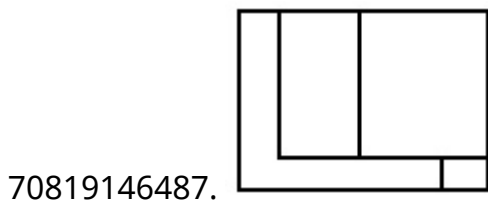


Correct Marks : 4 Wrong Marks : 1

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



Options :

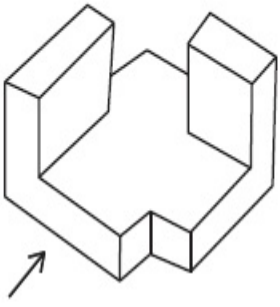


Question Number : 70 Question Id : 70819114007 Question Type : MCQ Option Shuffling : Yes

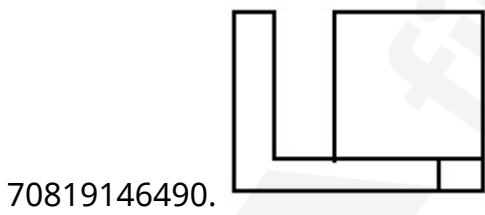
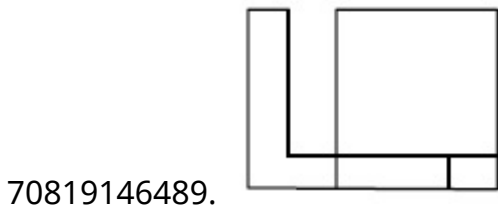
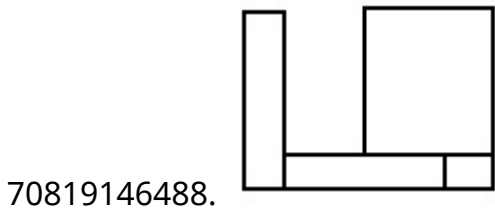
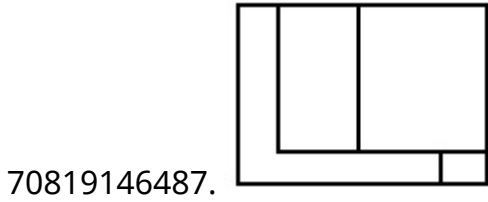
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य को आकृतियों में से पहचानिए।



Options :

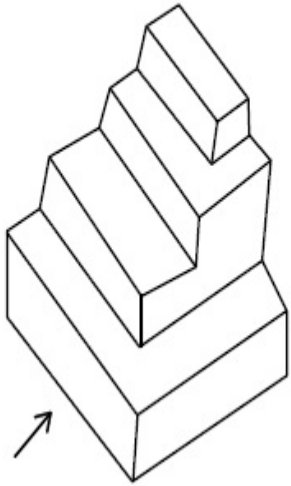


Question Number : 71 Question Id : 70819114008 Question Type : MCQ Option Shuffling : Yes

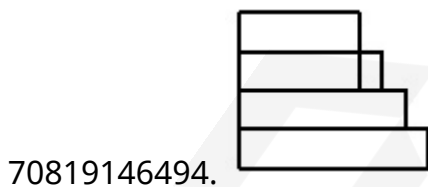
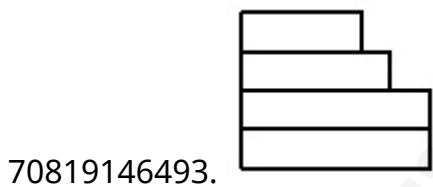
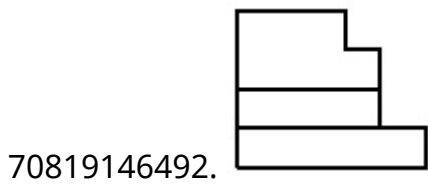
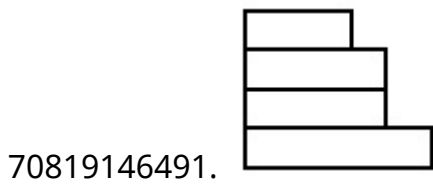
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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



Options :

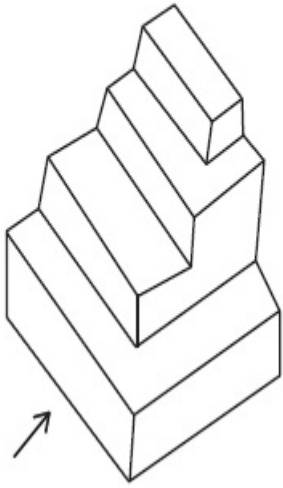


Question Number : 71 Question Id : 70819114008 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

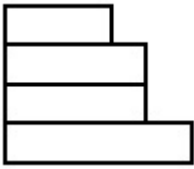
Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य का चयन आकृतियों में से पहचानिए।

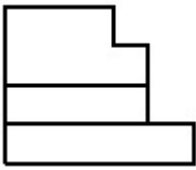


Options :

70819146491.



70819146492.



70819146493.



70819146494.

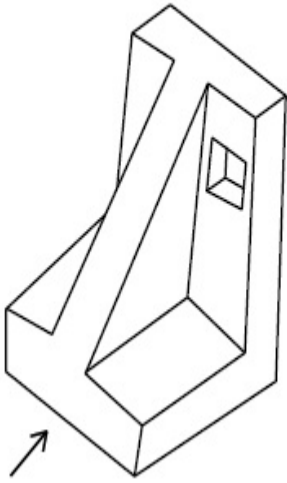


Question Number : 72 Question Id : 70819114009 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

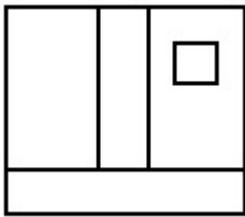
Correct Marks : 4 Wrong Marks : 1

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

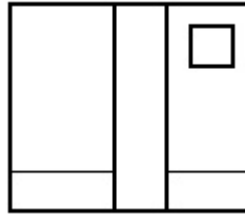


Options :

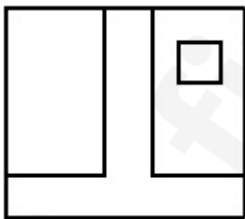
70819146495.



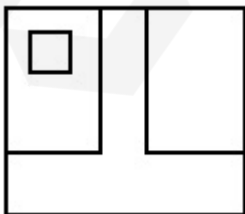
70819146496.



70819146497.



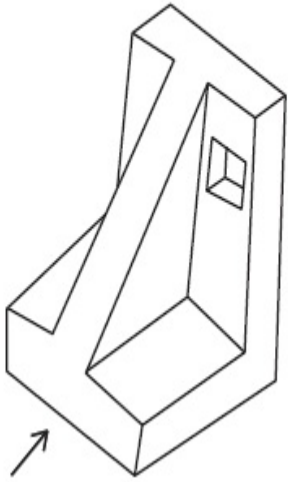
70819146498.



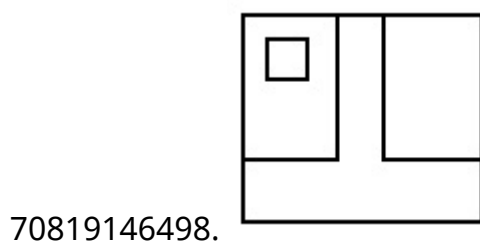
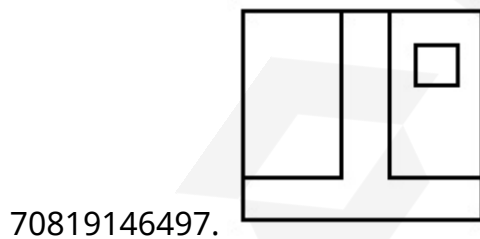
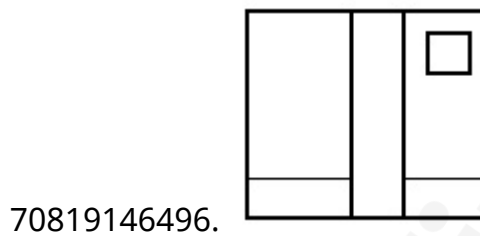
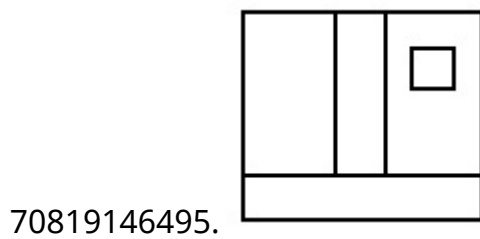
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दर्शाया गया है। तीर की दिशा में देखते हुए, सही दृश्य को उत्तर आकृतियों में से पहचानिए।



Options :

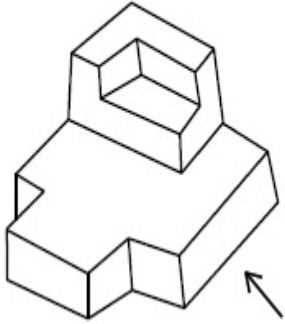


Question Number : 73 Question Id : 70819114010 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

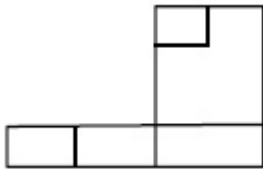
Correct Marks : 4 Wrong Marks : 1

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

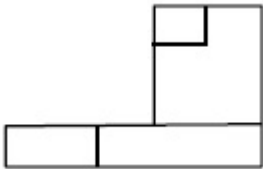


Options :

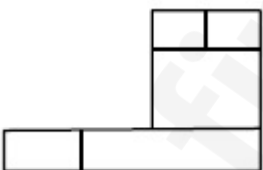
70819146499.



70819146500.



70819146501.



70819146502.

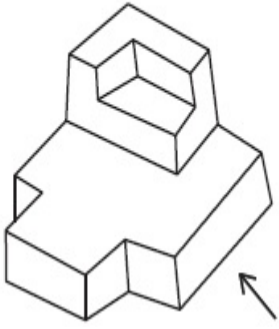


Question Number : 73 Question Id : 70819114010 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

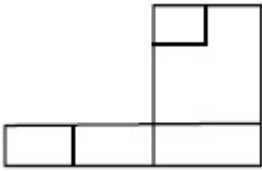
Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दर्शाया गया है। तीर की दिशा में देखते हुए, सही दृश्य को उत्तर आकृतियों में से पहचानिए।

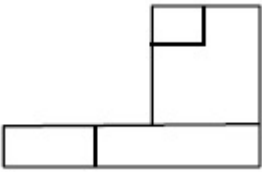


Options :

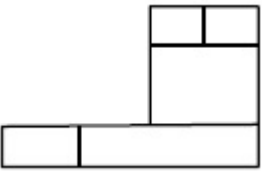
70819146499.



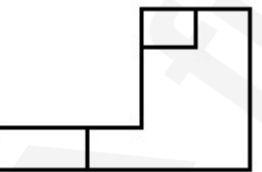
70819146500.



70819146501.



70819146502.

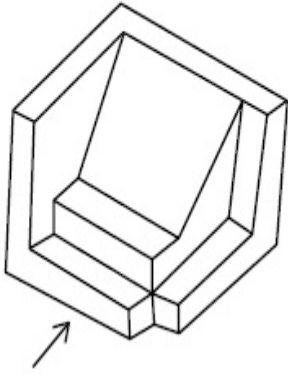


Question Number : 74 Question Id : 70819114011 Question Type : MCQ Option Shuffling : Yes

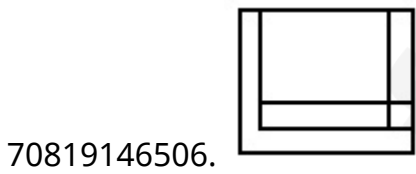
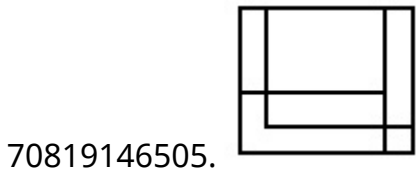
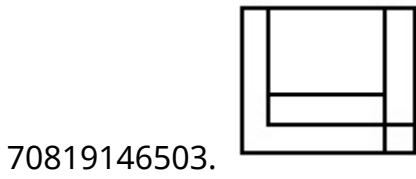
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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



Options :

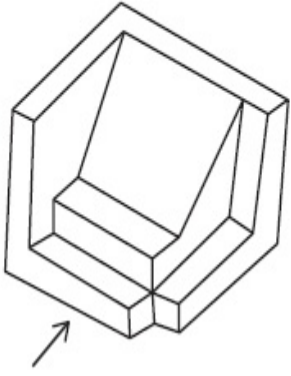


Question Number : 74 Question Id : 70819114011 Question Type : MCQ Option Shuffling : Yes

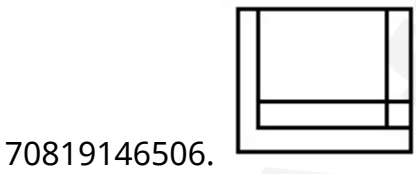
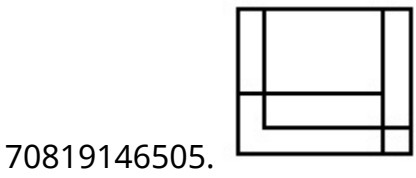
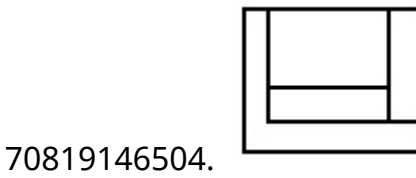
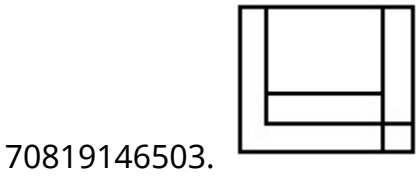
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

3D आकृति में एक वस्तु के एक दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, सही दृश्य के चार आकृतियों में से पहचानिए।



Options :

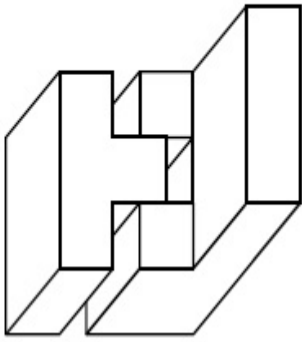


Question Number : 75 Question Id : 70819114012 Question Type : MCQ Option Shuffling : Yes

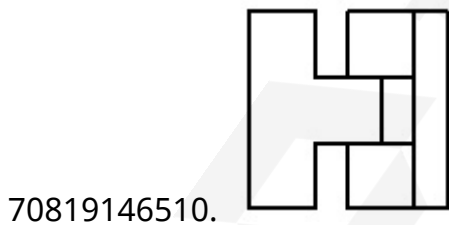
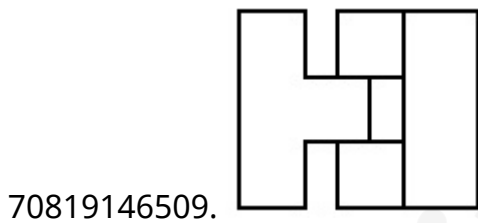
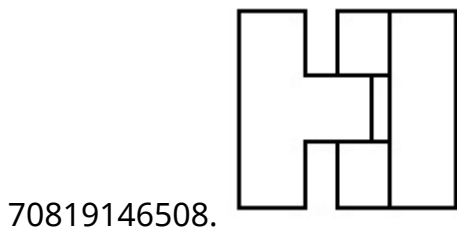
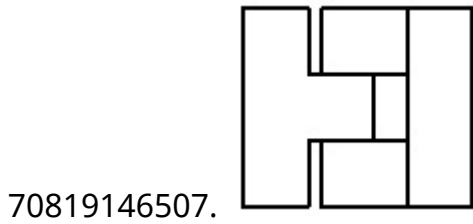
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The 3D figure shows the view of an object. Identify the correct top view, among the given figures.



Options :

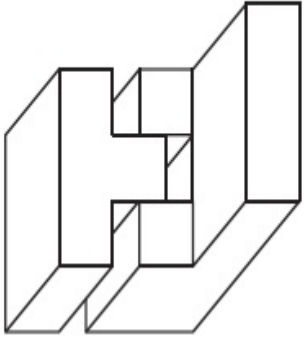


Question Number : 75 Question Id : 70819114012 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

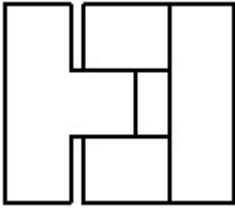
Correct Marks : 4 Wrong Marks : 1

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

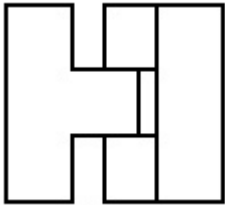


Options :

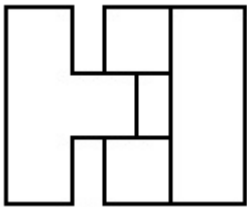
70819146507.



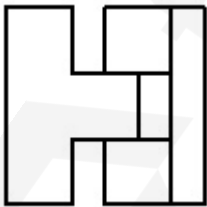
70819146508.



70819146509.



70819146510.

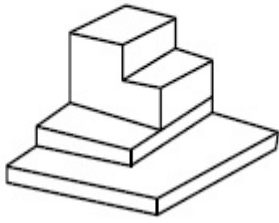


Question Number : 76 Question Id : 70819114013 Question Type : MCQ Option Shuffling : Yes

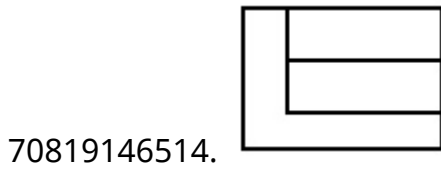
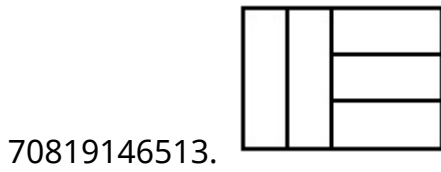
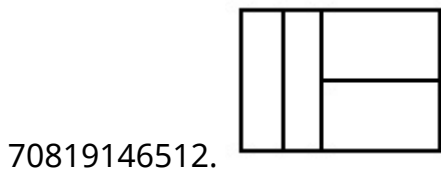
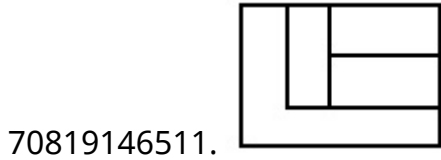
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The 3D figure shows the view of an object. Identify the correct top view, among the given figures.



Options :

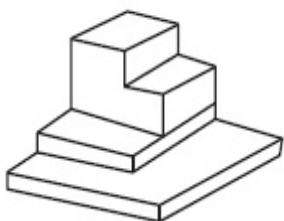


Question Number : 76 Question Id : 70819114013 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

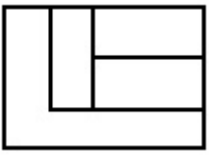
Correct Marks : 4 Wrong Marks : 1

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



Options :

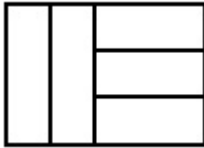
70819146511.



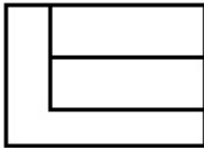
70819146512.



70819146513.



70819146514.

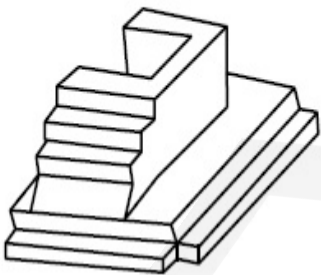


**Question Number : 77 Question Id : 70819114014 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

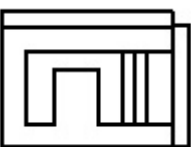
**Correct Marks : 4 Wrong Marks : 1**

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

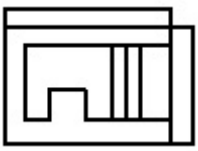


**Options :**

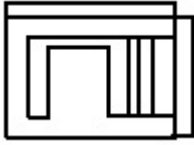
70819146515.



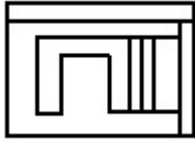
70819146516.



70819146517.



70819146518.

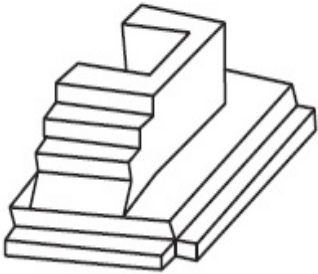


**Question Number : 77 Question Id : 70819114014 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

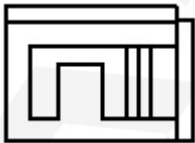
**Correct Marks : 4 Wrong Marks : 1**

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

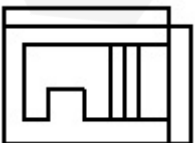


**Options :**

70819146515.



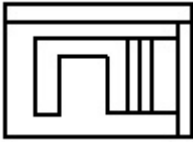
70819146516.



70819146517.



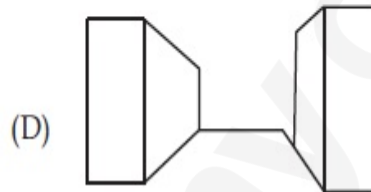
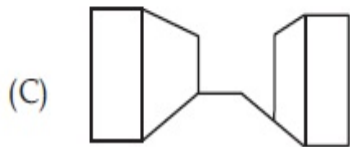
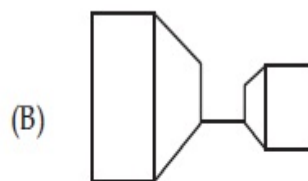
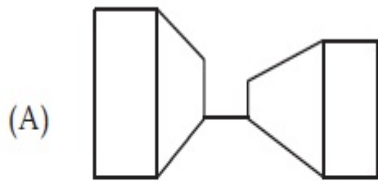
70819146518.



**Question Number : 78 Question Id : 70819114015 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

Identify the building compositions of having less visual tension amongst the following figures.



**Options :**

70819146519. (A) and (B)

70819146520. (B) and (C)

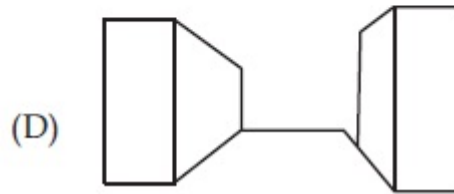
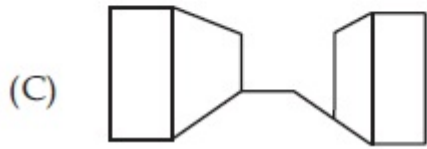
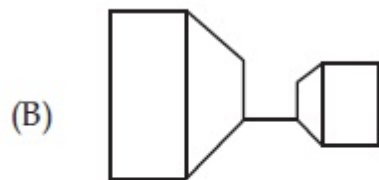
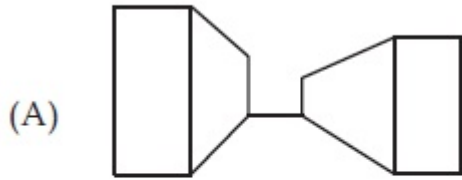
70819146521. (C) and (D)

70819146522. (D) and (A)

**Question Number : 78 Question Id : 70819114015 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

नीचे दी गई आकृतियों में से दृष्टि-संबंधी कम तनाव के भवन घटकों को पहचानिए



Options :

70819146519. (A) और (B)

70819146520. (B) और (C)

70819146521. (C) और (D)

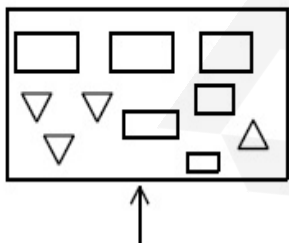
70819146522. (D) और (A)

Question Number : 79 Question Id : 70819114016 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

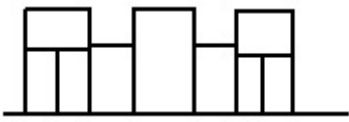
The problem figure shows the top view of an object. Identify the correct elevation amongst the answer figures looking in the direction of arrow.



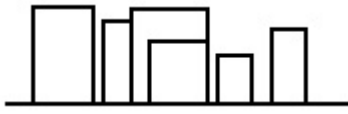
Options :



70819146524.



70819146525.



70819146526.

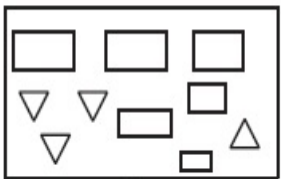


**Question Number : 79 Question Id : 70819114016 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

प्रश्न आकृति में एक वस्तु के ऊपरी दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, उत्तर आकृतियों में से सही एलिवेशन (elevation) को पहचानिए।



**Options :**

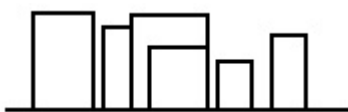
70819146523.



70819146524.



70819146525.



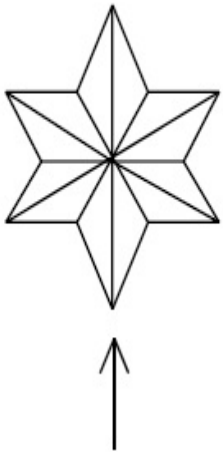
70819146526.



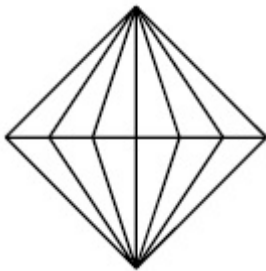
Question Number : 80 Question Id : 70819114017 Question Type : MCQ Option Shuffling : Yes  
 Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

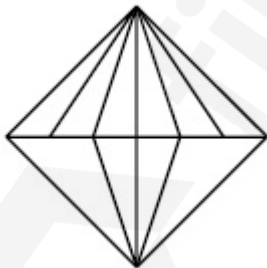
The problem figure shows the top view of an object. Identify the correct elevation amongst the answer figures looking in the direction of arrow.



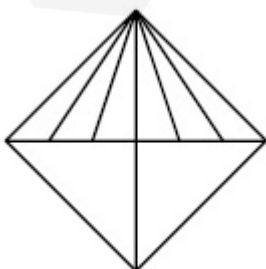
Options :



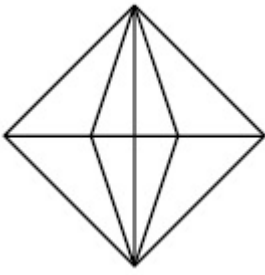
70819146527.



70819146528.



70819146529.



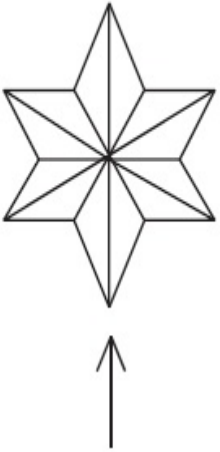
70819146530.

Question Number : 80 Question Id : 70819114017 Question Type : MCQ Option Shuffling : Yes

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

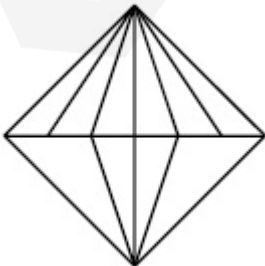
प्रश्न आकृति में एक वस्तु के ऊपरी दृश्य को दिखाया गया है। तीर की दिशा में देखते हुए, उत्तर आकृतियों में से सही एलीवेशन (elevation) को पहचानिए।



Options :

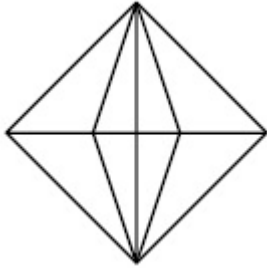
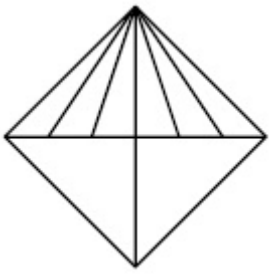


70819146527.



70819146528.

70819146529.



70819146530.

## Drawing

<b>Section Id :</b>	708191495
<b>Section Number :</b>	4
<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>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	708191775
<b>Question Shuffling Allowed :</b>	No

**Question Number : 81 Question Id : 70819114018 Question Type : SUBJECTIVE**

**Correct Marks : 50**

Draw a proportionate sketch of given reference image by using any black and white rendering techniques of your own choice.

OR

Decode image and prepare balanced composition in a frame of your choice by using any black and white rendering techniques.



Question Number : 81 Question Id : 70819114018 Question Type : SUBJECTIVE

Correct Marks : 50

अपनी पसंद के किसी भी ब्लैक एंड व्हाइट रेंडरिंग तकनीक का उपयोग करके दी गई छवि का एक अनुपातिक स्केच बनाएँ।

अथवा

दी गई छवि का विसंकेतन करके अपने पसंद के फ्रेम में संतुलित रचना तैयार करें। ब्लैक एंड व्हाइट रेंडरिंग तकनीक का प्रयोग करें।



Question Number : 82 Question Id : 70819114019 Question Type : SUBJECTIVE

Correct Marks : 50

Draw a scene of a Kite festival by using colors.

OR

Draw a Harmonic three dimensional composition with the following two types of objects.

(i) CUBOID A : SIZE  $2\text{ cm} \times 2\text{ cm} \times 2\text{ cm}$ , 5 Nos.

(ii) CUBOID B : SIZE  $5\text{ cm} \times 2\text{ cm} \times 2\text{ cm}$ , 4 Nos.

Use 'Cool Colorscheme' for composition.

Question Number : 82 Question Id : 70819114019 Question Type : SUBJECTIVE

Correct Marks : 50

रंगों का उपयोग करके पतंग उत्सव का दृश्य बनाइये।

अथवा

नीचे दिये गये दो प्रकार के वस्तुओं का उपयोग करके एक समतल तीन द्वांत्मक रचना बनाइये।

(i) घनाभ A : 2 से.मी.  $\times$  2 से.मी.  $\times$  2 से.मी. संख्या - 5

(ii) घनाभ B : 5 से.मी.  $\times$  2 से.मी.  $\times$  2 से.मी. संख्या - 4

शीत रंगसंगती का प्रयोग करें।