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|---|---|
| **Question Paper Name :** | B PLANNING AND B ARCH 23rd Feb 2021 Shift 2 |
| **Subject Name :** | B PLANNING AND B ARCH |
| **Creation Date :** | 2021-02-22 14:14:18 |
| **Duration :** | 210 |
| **Number of Questions :** | 107 |
| **Total Marks :** | 500 |
| **Display Marks:** | Yes |

# B PLANNING AND B ARCH

| | |
|---|---|
| **Group Number :** | 1 |
| **Group Id :** | 708191147 |
| **Group Maximum Duration :** | 0 |
| **Group Minimum Duration :** | 210 |
| **Show Attended Group? :** | No |
| **Edit Attended Group? :** | No |
| **Break time :** | 0 |
| **Group Marks :** | 500 |
| **Is this Group for Examiner? :** | No |

# Mathematics Section A

| | |
|---|---|
| **Section Id :** | 708191483 |
| **Section Number :** | 1 |
| **Section type :** | Online |

**Question Number : 1 Question Id : 70819113749 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

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

**Options :**

70819145561. $\dfrac{121}{3}$

70819145562. $\dfrac{122}{3}$

70819145563. $\dfrac{125}{3}$

70819145564. $\dfrac{128}{3}$

**Question Number : 2 Question Id : 70819113750 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 :**

70819145565. $\frac{31}{13}$

70819145566. $\frac{108}{13}$

70819145567. $\frac{27}{2}$

70819145568. $\frac{54}{7}$

**Question Number : 3 Question Id : 70819113751 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 :**

70819145569. $p \Leftrightarrow p \vee q$

70819145570. $(p \wedge q) \Leftrightarrow p$

70819145571. $(p \wedge (\sim p \vee q)) \vee (\sim q)$

70819145572. $(p \vee \sim p) \wedge (q \vee (\sim q))$

**Question Number : 4 Question Id : 70819113752 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 $\dfrac{1}{x}, \dfrac{1}{y}, \dfrac{1}{z}$ are in Arithmetic Progression, then :

**Options :**

70819145573.   a, b and c are in Arithmetic Progression

70819145574.   a, b and c are in Geometric Progression

70819145575.   a, 2b and c are in Arithmetic Progression

70819145576.   a, b and c satisfy $2b^2=ac$

**Question Number : 5 Question Id : 70819113753 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

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

**Options :**

70819145577.   $15e+5$

70819145578.   $15e-5$

70819145579.   $16e-5$

70819145580.   $16e-7$

**Question Number : 6 Question Id : 70819113754 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 :**

70819145581.    5

70819145582.    3

70819145583.    7

70819145584.    1

**Question Number : 7 Question Id : 70819113755 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 :**

70819145585.    455

70819145586.    421

70819145587.    435

70819145588.    441

**Question Number : 8 Question Id : 70819113756 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

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

**Options :**

70819145589. $a = 1, \ b = 0$

70819145590. $a = 0, \ b = 1$

70819145591. $a = 0, \ b = -1$

70819145592. $a = -1, \ b = 1$

**Question Number : 9 Question Id : 70819113757 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

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

**Options :**

70819145593. $\dfrac{9}{13}$

70819145594. $\dfrac{15}{4}$

70819145595. $\dfrac{13}{9}$

70819145596. $\dfrac{1}{13}$

**Question Number : 10 Question Id : 70819113758 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 :**

70819145597. $\frac{7}{20}$

70819145598. $\frac{1}{20}$

70819145599. $\frac{19}{20}$

70819145600. $\frac{12}{20}$

**Question Number : 11 Question Id : 70819113759 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 :**

70819145601. $\cos\frac{\pi}{2} + i\sin\frac{\pi}{2}$

70819145602. $\cos\frac{\pi}{2} - i\sin\frac{\pi}{2}$

70819145603. $\cos\frac{\pi}{4} + i\sin\frac{\pi}{4}$

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

70819145604.

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**Question Number : 12 Question Id : 70819113760 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 :**

70819145605.  2

70819145606.  3

70819145607.  4

70819145608.  1

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**Question Number : 13 Question Id : 70819113761 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 :**

70819145609.  $x^2 + y^2 - 2x + 4y + 3 = 0$

70819145610.  $x^2 + y^2 - 4x - 2y + 4 = 0$

70819145611.  $2(x^2 + y^2) - x + y + 1 = 0$

70819145612. $x^2 + y^2 - 2x - 4y + 3 = 0$

**Question Number : 14 Question Id : 70819113762 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Equations of the common tangent of the ellipse $\dfrac{(x+1)^2}{2^2} + \dfrac{(y-1)^2}{3^2} = 1$ and the circle $(x+1)^2 + (y-1)^2 = 4$ are :

**Options :**

70819145613. $y + 3 = 0$ and $x - 1 = 0$

70819145614. $x - 3 = 0$ and $y + 1 = 0$

70819145615. $x + 3 = 0$ and $x - 1 = 0$

70819145616. $y + 3 = 0$ and $y - 1 = 0$

**Question Number : 15 Question Id : 70819113763 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 $A^k$ ($k \in N$) is :

**Options :**

70819145617. $\begin{bmatrix} 1 & ka \\ 0 & 1 \end{bmatrix}$

70819145618. $\begin{bmatrix} 1 & k^2a \\ 0 & 1 \end{bmatrix}$

70819145619. $\begin{bmatrix} k & ka \\ 0 & k \end{bmatrix}$

70819145620. $\begin{bmatrix} 1 & ka \\ 0 & 0 \end{bmatrix}$

**Question Number : 16 Question Id : 70819113764 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 :**

70819145621. $s = 5, \ t = 13$

70819145622. $s \neq 5$

70819145623. $s = 5, \ t \neq 13$

70819145624. $t \neq 13$

**Question Number : 17 Question Id : 70819113765 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

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

**Options :**

70819145625. $1$

70819145626. $-1$

70819145627. $0$

70819145628. $2$

**Question Number : 18 Question Id : 70819113766 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 $\left|\vec{a}\right| = \left|\vec{b}\right| = \dfrac{\left|\vec{c}\right|}{2} = 1$. If $\vec{a} \times \left(\vec{a} \times \vec{c}\right) + \vec{b} = \vec{0}$, then

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

**Options :**

70819145629. $\dfrac{\pi}{6}$

70819145630. $\dfrac{\pi}{4}$

70819145631. $\dfrac{\pi}{3}$

70819145632. $\dfrac{5\pi}{12}$

**Question Number : 19 Question Id : 70819113767 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 :**

70819145633.  $x = 1 - \tan^{-1}y + ce^{-\tan^{-1}y}$

70819145634.  $y = \tan^{-1}y - 1 + ce^{-\tan^{-1}x}$

70819145635.  $x = \tan^{-1}y - 1 + ce^{-\tan^{-1}y}$

70819145636.  $x = -\tan^{-1}y - 1 - ce^{\tan^{-1}x}$

**Question Number : 20 Question Id : 70819113768 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 :**

70819145637.  $[-5, -4] \cup [4, 5]$

70819145638.  $[-5, 4) \cup (-4, 5]$

70819145639.  $(-5, -4) \cup (4, 5)$

70819145640.  $(-5, 4) \cup (-4, 5)$

# Mathematics Section B

| Section Id : | 708191484 |
|---|---|
| Section Number : | 2 |
| Section type : | Online |
| Mandatory or Optional : | Mandatory |
| Number of Questions : | 10 |
| Number of Questions to be attempted : | 5 |
| Section Marks : | 20 |
| Mark As Answered Required? : | Yes |
| Sub-Section Number : | 1 |
| Sub-Section Id : | 708191764 |
| Question Shuffling Allowed : | Yes |

**Question Number : 21 Question Id : 70819113769 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 : 22 Question Id : 70819113770 Question Type : SA**

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

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

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**Question Number : 23 Question Id : 70819113771 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

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**Question Number : 24 Question Id : 70819113772 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 : 25 Question Id : 70819113773 Question Type : SA**

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

If $x^2 + x + 1 = 0$, then $-\left\{\left(x - \dfrac{1}{x}\right)^2 + \left(x^2 - \dfrac{1}{x^2}\right)^2 + \left(x^3 - \dfrac{1}{x^3}\right)^2\right\}$ 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 : 26 Question Id : 70819113774 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 : 27 Question Id : 70819113775 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 : 28 Question Id : 70819113776 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 $\in$ 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 : 29 Question Id : 70819113777 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 $4\sin^2 x - 8\sin x + 3 = 0$ 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 : 30 Question Id : 70819113778 Question Type : SA**

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

Let $A_1$, $A_2$, $A_3$, ....... 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

# Aptitude Test

| | |
|---|---|
| **Section Id :** | 708191485 |
| **Section Number :** | 3 |
| **Section type :** | Online |
| **Mandatory or Optional :** | Mandatory |
| **Number of Questions :** | 50 |
| **Number of Questions to be attempted :** | 50 |
| **Section Marks :** | 200 |
| **Mark As Answered Required? :** | Yes |
| **Sub-Section Number :** | 1 |
| **Sub-Section Id :** | 708191765 |
| **Question Shuffling Allowed :** | Yes |

**Question Number : 31 Question Id : 70819113779 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 :**

70819145651. United Nations Educational, Scientific & Cultural Organization.

70819145652. United Nations Educational Security Cultural Organization.

70819145653. United Nations Entrance Site Calling Organization.

70819145654. United Nations Educational, Sustainable & Cultural Organization.
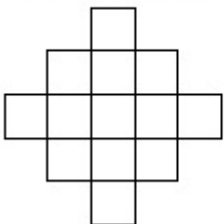
**Question Number : 32 Question Id : 70819113780 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

Match List - I with List - II.

| List - I | | List - II |
|---|---|---|
| (I) | Hall of Nation | (a)  |
| (II) | Falling Water, Pennsylvania | (b)  |
| (III) | Petronas Tower | (c)  |
| (IV) | Secretariat | (d)  |

**Options :**

70819145655. (I)-(b), (II)-(a), (III)-(d), (IV)-(c)

70819145656. (I)-(c), (II)-(d), (III)-(a), (IV)-(b)

70819145657. (I)-(a), (II)-(b), (III)-(c), (IV)-(d)
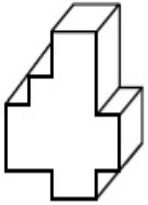
70819145658. (I)-(b), (II)-(a), (III)-(c), (IV)-(d)

**Question Number : 33 Question Id : 70819113781 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 :**

70819145659. (I)-(b), (II)-(c), (III)-(d), (IV)-(a)

70819145660. (I)-(b), (II)-(d), (III)-(c), (IV)-(a)

70819145661. (I)-(c), (II)-(a), (III)-(b), (IV)-(d)
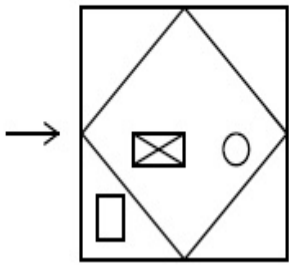
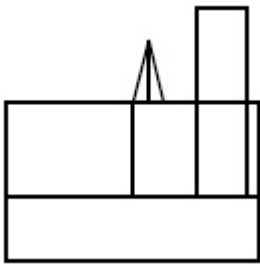70819145662. (I)-(b), (II)-(a), (III)-(d), (IV)-(c)

**Question Number : 34 Question Id : 70819113782 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) | Agra fort | (a) |  |
| (II) | Atala Masjid | (b) |  |
| (III) | Nalanda University | (c) |  |
| (IV) | Jagannatha Temple | (d) |  |

**Options :**

70819145663. (I)-(b), (II)-(c), (III)-(a), (IV)-(d)

70819145664. (I)-(a), (II)-(b), (III)-(c), (IV)-(d)

70819145665. (I)-(c), (II)-(a), (III)-(d), (IV)-(b)

70819145666. (I)-(b), (II)-(a), (III)-(c), (IV)-(d)

**Question Number : 35 Question Id : 70819113783 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**
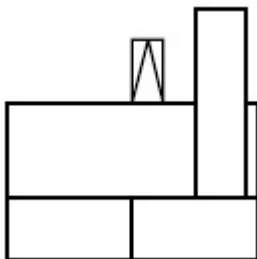
**Correct Marks : 4 Wrong Marks : 1**

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 :**

70819145667.    (I)-(c), (II)-(d), (III)-(b), (IV)-(a)

70819145668.    (I)-(c), (II)-(d), (III)-(a), (IV)-(b)

70819145669.    (I)-(d), (II)-(b), (III)-(c), (IV)-(a)

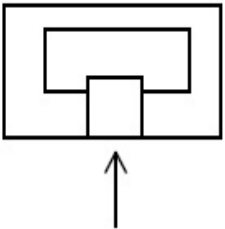70819145670.    (I)-(b), (II)-(d), (III)-(a), (IV)-(c)

**Question Number : 36 Question Id : 70819113784 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 :**

70819145671.    (I)-(a), (II)-(d), (III)-(b), (IV)-(c)

70819145672.    (I)-(d), (II)-(c), (III)-(a), (IV)-(b)

70819145673. (I)-(d), (II)-(c), (III)-(b), (IV)-(a)

70819145674. (I)-(a), (II)-(b), (III)-(d), (IV)-(c)

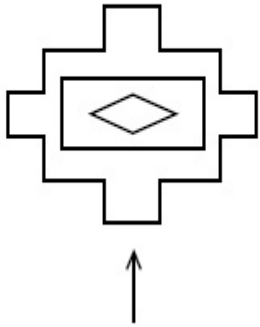**Question Number : 37 Question Id : 70819113785 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

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

**Options :**

70819145675. B.V. Doshi

70819145676. Arundhati Roy

70819145677. Revati Kamat

70819145678. Bimal Patel

**Question Number : 38 Question Id : 70819113786 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 :**

70819145679. Gujarat

70819145680. West Bengal

70819145681. Tamil Nadu
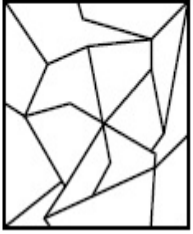
70819145682. Rajasthan

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**Question Number : 39 Question Id : 70819113787 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 :**

70819145683. North-West side

70819145684. South-East side

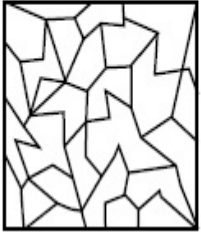70819145685. North side

70819145686. South-West side

---

**Question Number : 40 Question Id : 70819113788 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 :**

70819145687. Bharat Bhavan in Bhopal

70819145688. LIC Building in Delhi

70819145689. Charminar in Hyderabad
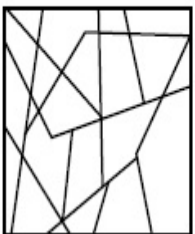
70819145690. Victoria Memorial in Kolkata

**Question Number : 41 Question Id : 70819113789 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 :**

70819145691. $420 \times 590 \ (mm \times mm)$

70819145692. $420 \times 594 \ (mm \times mm)$

70819145693. $297 \times 420 \ (mm \times mm)$

70819145694. $420 \times 592 \ (mm \times mm)$

**Question Number : 42 Question Id : 70819113790 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 :**

70819145695. Chittor fort

70819145696. Jaigarh fort
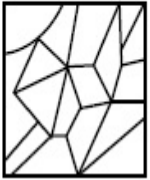
70819145697. Bhangarh fort

70819145698. Amer fort

**Question Number : 43 Question Id : 70819113791 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 :**

70819145699. Sanjay Puri

70819145700. Vikram Lall

70819145701. Ashok Lall

70819145702. C. Sompura

**Question Number : 44 Question Id : 70819113792 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

'Volume Zero' Documentary is on which Architect ?

**Options :**

70819145703. Charles Correa

70819145704. Richard Mier
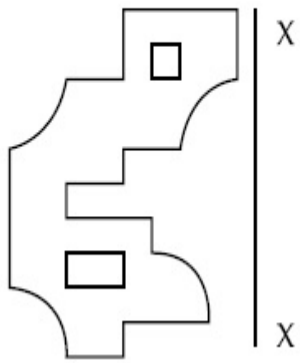
70819145705. Jasbir Sachdev

70819145706. Ranjit Sabliki

**Question Number : 45 Question Id : 70819113793 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

'Agenda 21' is declaration related with :

**Options :**

70819145707. Climate change

70819145708. Global warming

70819145709. Sustainable development

70819145710. Smart city

**Question Number : 46 Question Id : 70819113794 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 :**

70819145711. Karnataka

70819145712. Orissa

70819145713. Maharashtra

70819145714. Uttar Pradesh

**Question Number : 47 Question Id : 70819113795 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 :**

70819145715. North

70819145716. South

70819145717. East

70819145718. West

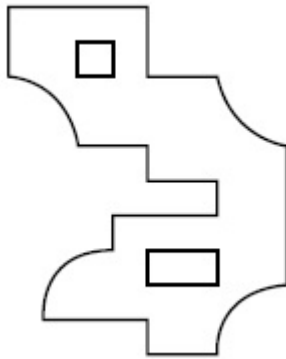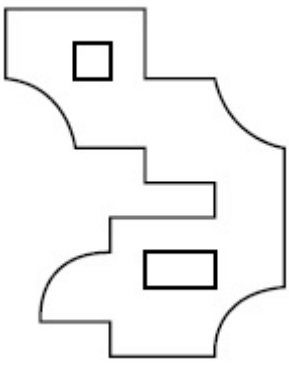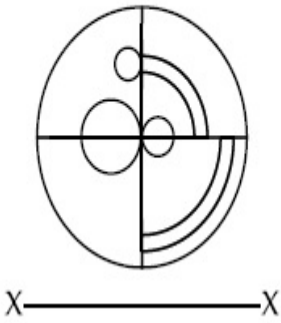**Question Number : 48 Question Id : 70819113796 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

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

**Options :**

70819145719. B.V. Doshi

70819145720. Laurie Baker

70819145721. Raj Rewal

70819145722. Achyut Kanvinde

**Question Number : 49 Question Id : 70819113797 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**
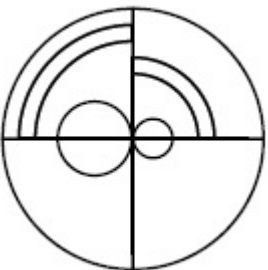
**Correct Marks : 4 Wrong Marks : 1**

Word "Bungalow" has originated from :

**Options :**

70819145723. Bengalurm

70819145724. Banaras

70819145725. Bengal

70819145726. Bari

**Question Number : 50 Question Id : 70819113798 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 :**

70819145727. Laurie Baker

70819145728. Louis Kahn

70819145729. Lutyen

70819145730. Le Corbusier

**Question Number : 51 Question Id : 70819113799 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 :**

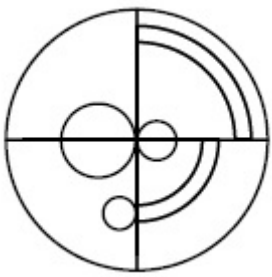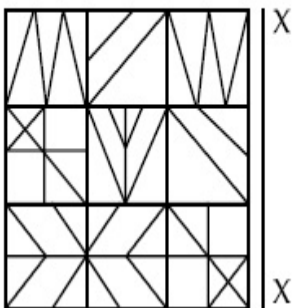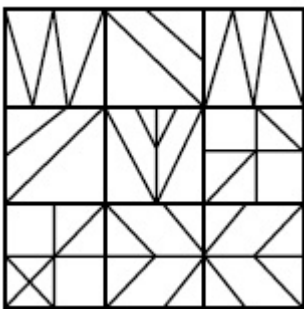70819145731. 14

70819145732. <sup>13</sup>

70819145733. <sup>15</sup>

70819145734. <sup>18</sup>

**Question Number : 52 Question Id : 70819113800 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.
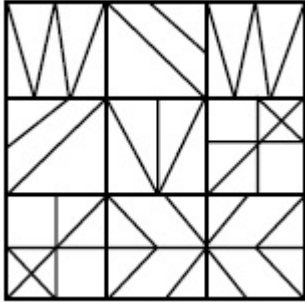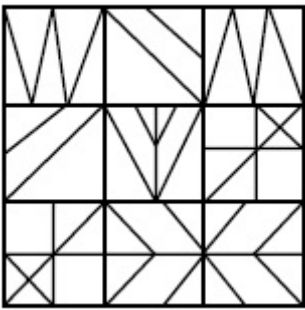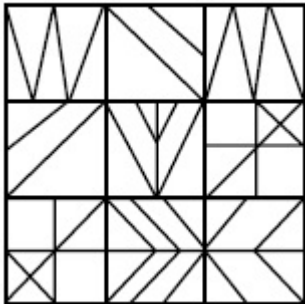Select the correct one.
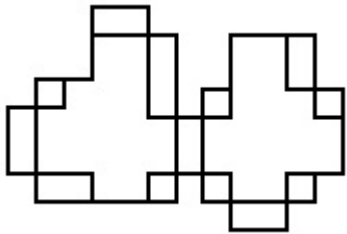
**Options :**
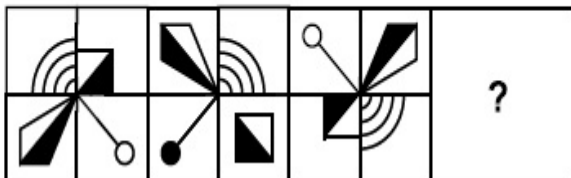
70819145735.
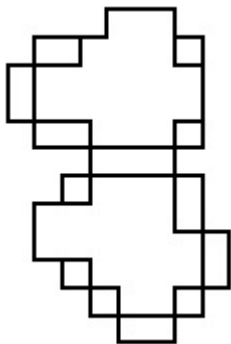
70819145736.
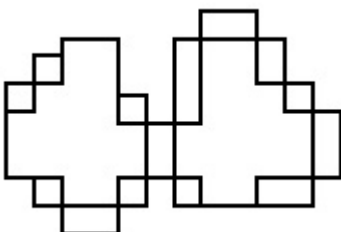
70819145737.
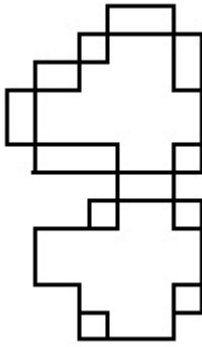
70819145738.

**Question Number : 53 Question Id : 70819113801 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.
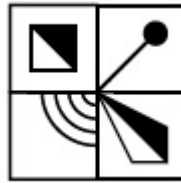


**Options :**



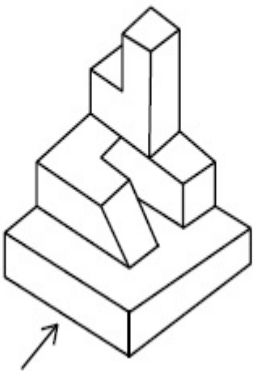70819145739.



70819145740.

70819145741.
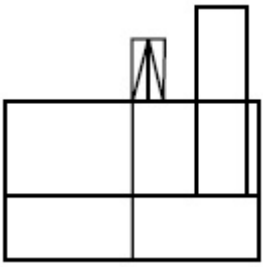
70819145742.
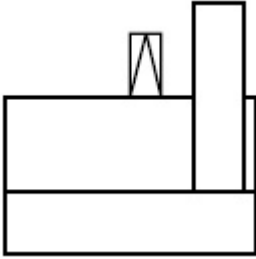
**Question Number : 54 Question Id : 70819113802 Question Type : MCQ Option Shuffling : Yes**

**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 :**



70819145743.
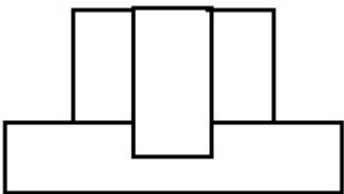


70819145744.
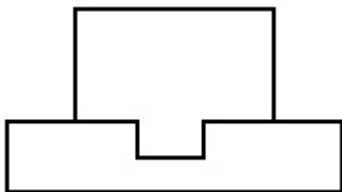
70819145745.
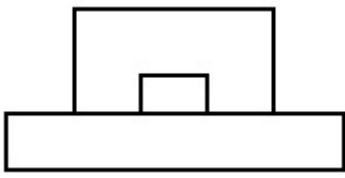
70819145746.
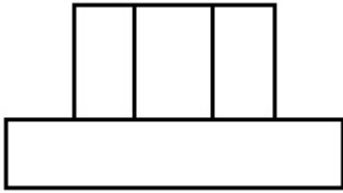
**Question Number : 55 Question Id : 70819113803 Question Type : MCQ Option Shuffling : Yes**
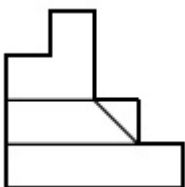
**Is Question Mandatory : No**

**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.
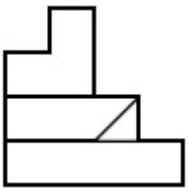


**Options :**
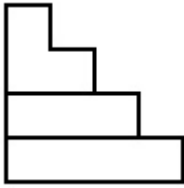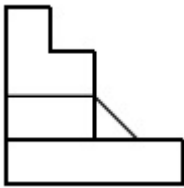


70819145747.
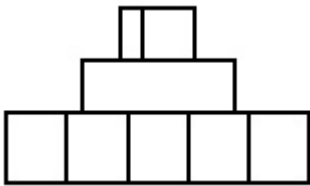


70819145748.
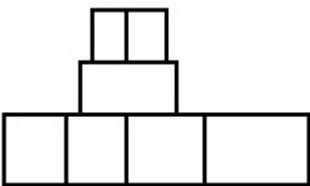


70819145749.
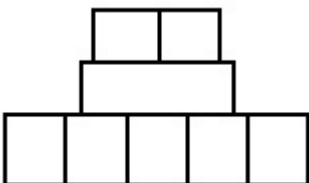
70819145750.
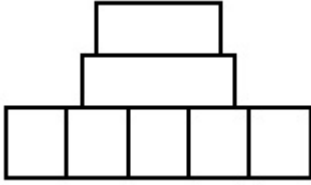
**Question Number : 56 Question Id : 70819113804 Question Type : MCQ Option Shuffling : Yes**

**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 :**

70819145751.
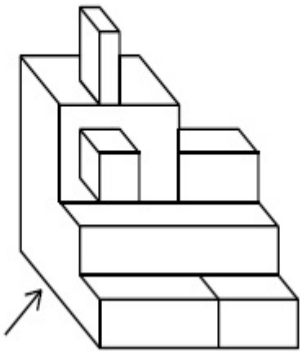


70819145752.



70819145753.



70819145754.



**Question Number : 57 Question Id : 70819113805 Question Type : MCQ Option Shuffling : Yes**
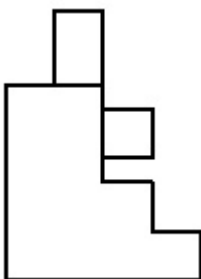
**Is Question Mandatory : No**

**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 :**

70819145755.



70819145756.



70819145757.



70819145758.



**Question Number : 58 Question Id : 70819113806 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 :**

70819145759.



70819145760.

70819145761. 

70819145762. 

**Question Number : 59 Question Id : 70819113807 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 :**

70819145763. 

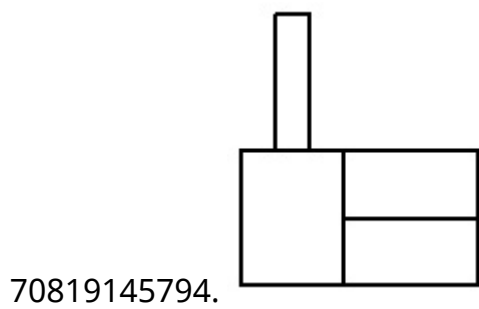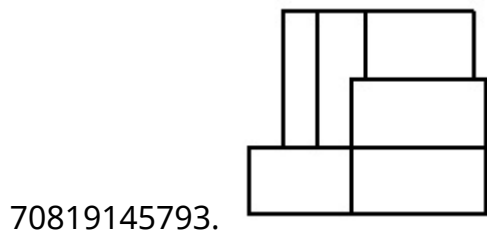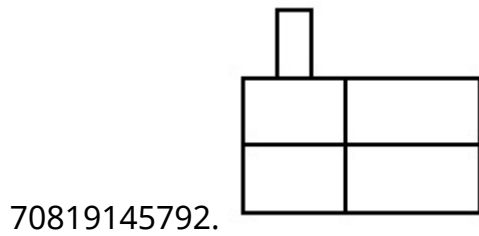70819145764. 

70819145765. 

70819145766. 

**Question Number : 60 Question Id : 70819113808 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 ?



X

X
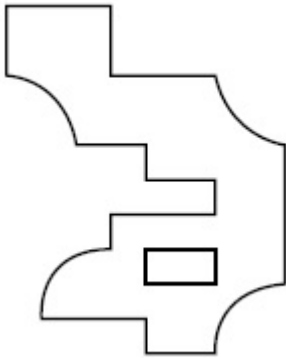
**Options :**



70819145767.



70819145768.
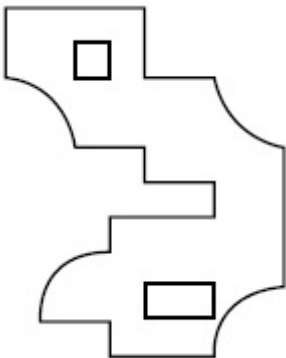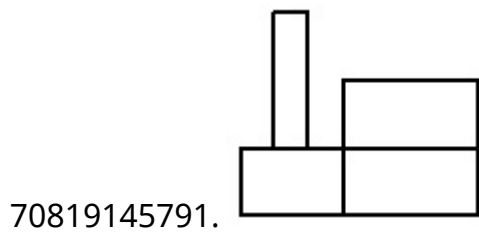


70819145769.

70819145770.

**Question Number : 61 Question Id : 70819113809 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 ?
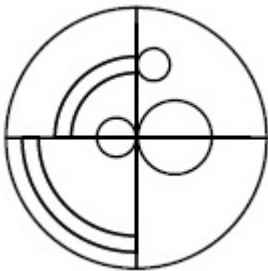


**Options :**
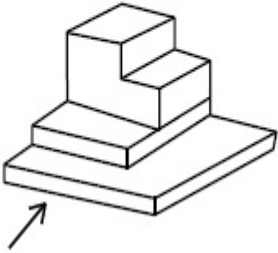


70819145771.



70819145772.

70819145773.
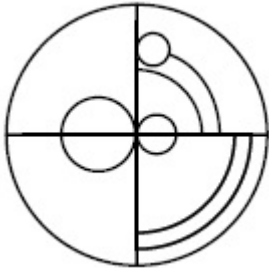
70819145774.

**Question Number : 62 Question Id : 70819113810 Question Type : MCQ Option Shuffling : Yes**
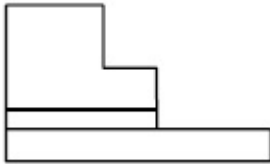
**Is Question Mandatory : No**

**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 :**



70819145775.

70819145776.

70819145777.



70819145778.

**Question Number : 63 Question Id : 70819113811 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 :**



70819145779.

70819145780. 

70819145781. 

70819145782. 

**Question Number : 64 Question Id : 70819113812 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.
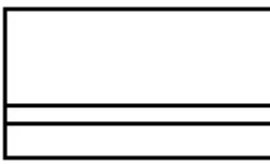


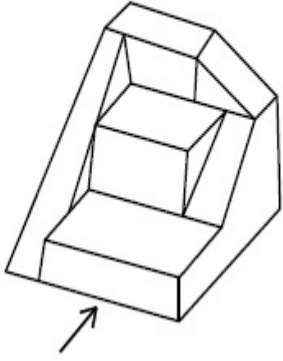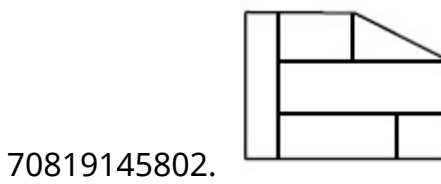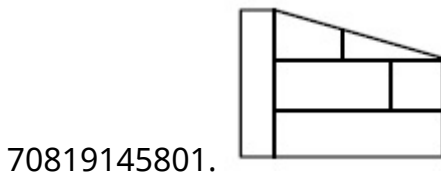**Options :**

70819145783. 

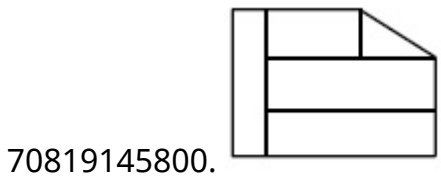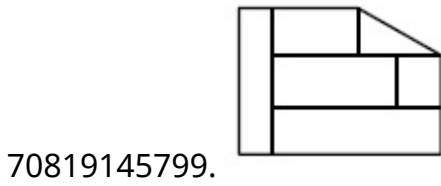70819145784.

70819145785.



70819145786.

**Question Number : 65 Question Id : 70819113813 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 :**



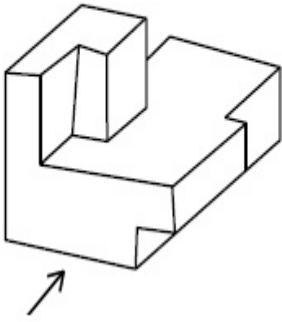70819145787.

70819145788.
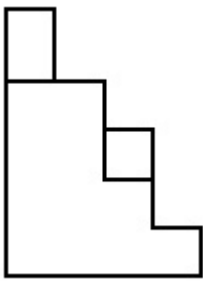
70819145789.
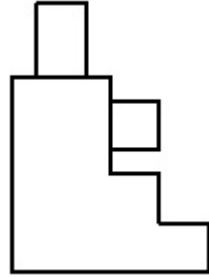
70819145790.
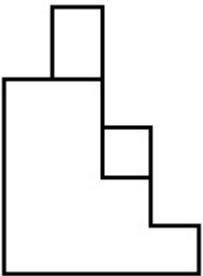
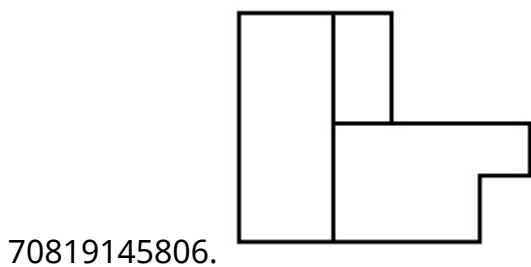**Question Number : 66 Question Id : 70819113814 Question Type : MCQ Option Shuffling : Yes**

**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 :**

70819145791.


70819145792.


70819145793.


70819145794.
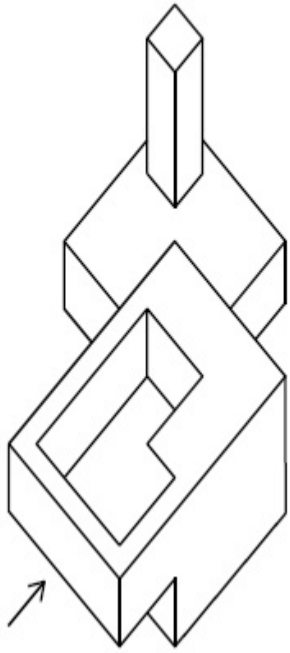
**Question Number : 67 Question Id : 70819113815 Question Type : MCQ Option Shuffling : Yes**
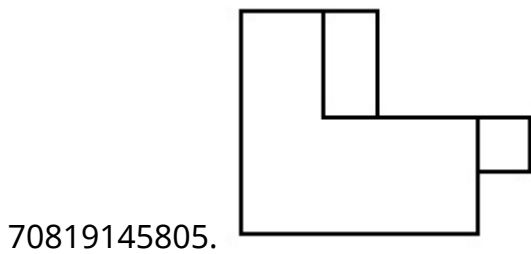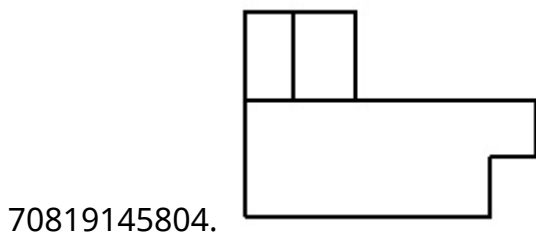
**Is Question Mandatory : No**

**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 :**



70819145795.



70819145796.



70819145797.
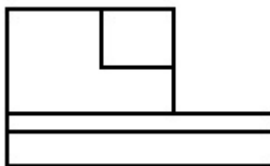


70819145798.

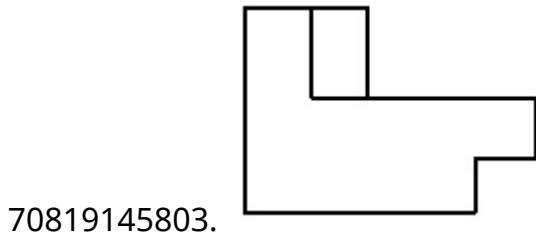**Question Number : 68 Question Id : 70819113816 Question Type : MCQ Option Shuffling : Yes**

**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.
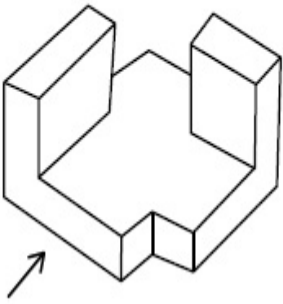


**Options :**

70819145799.



70819145800.



70819145801.



70819145802.



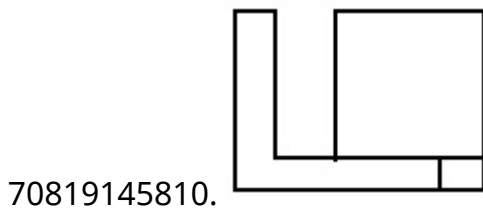**Question Number : 69 Question Id : 70819113817 Question Type : MCQ Option Shuffling : Yes**
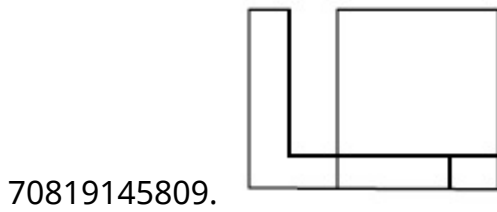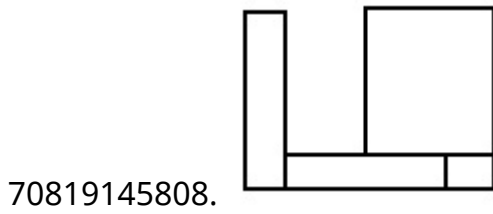
**Is Question Mandatory : No**

**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 :**

70819145803.



70819145804.



70819145805.



70819145806.



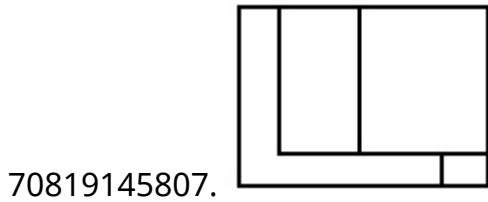**Question Number : 70 Question Id : 70819113818 Question Type : MCQ Option Shuffling : Yes**

**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 :**

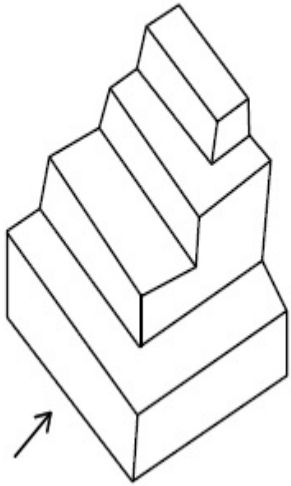70819145807. 

70819145808. 

70819145809. 

70819145810. 

Question Number : 71 Question Id : 70819113819 Question Type : MCQ Option Shuffling : Yes
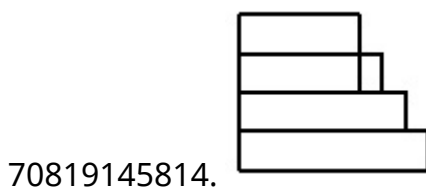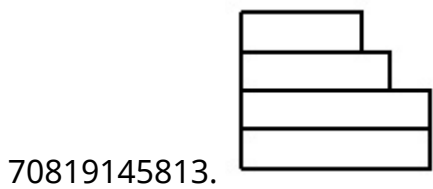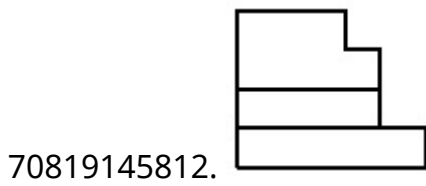
Is Question Mandatory : No

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 :**

70819145811. 

70819145812. 

70819145813. 

70819145814. 

**Question Number : 72 Question Id : 70819113820 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 :**

70819145815.


70819145816.


70819145817.


70819145818.


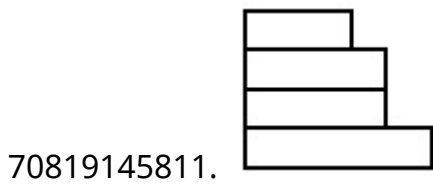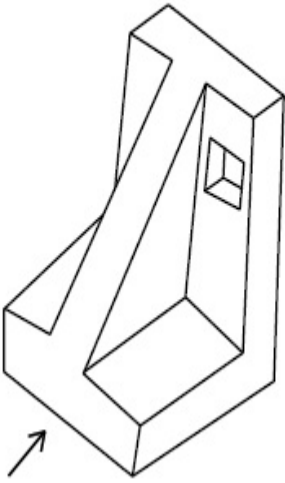**Question Number : 73 Question Id : 70819113821 Question Type : MCQ Option Shuffling : Yes**
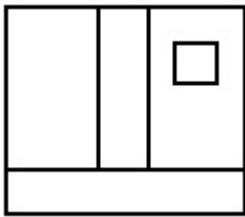
**Is Question Mandatory : No**

**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 :**

70819145819.



70819145820.



70819145821.



70819145822.



**Question Number : 74 Question Id : 70819113822 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.
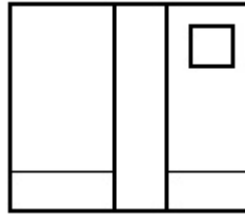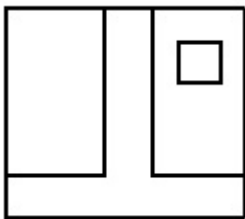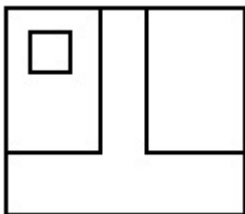


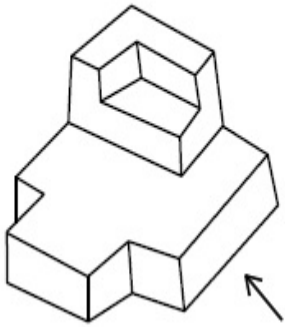**Options :**

70819145823.   

70819145824.   

70819145825.   

70819145826.   

**Question Number : 75 Question Id : 70819113823 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 :**

70819145827.



70819145828.



70819145829.



70819145830.
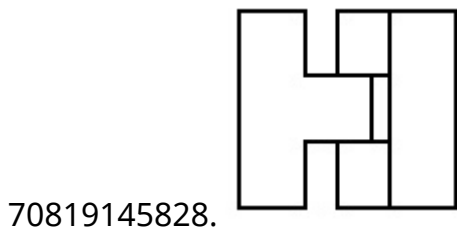


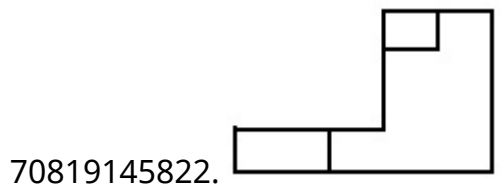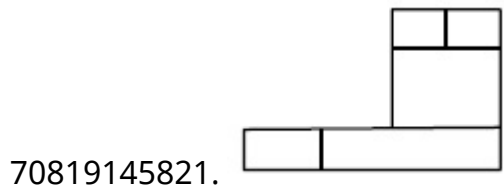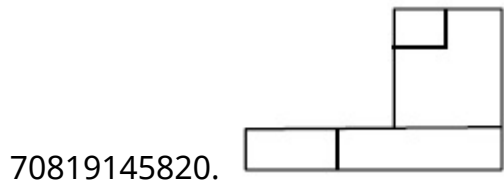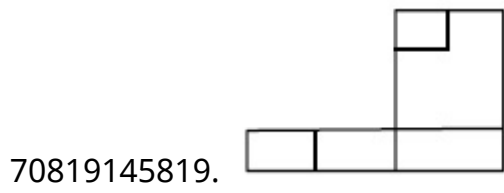Question Number : 76 Question Id : 70819113824 Question Type : MCQ Option Shuffling : Yes

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 :**

70819145831.  

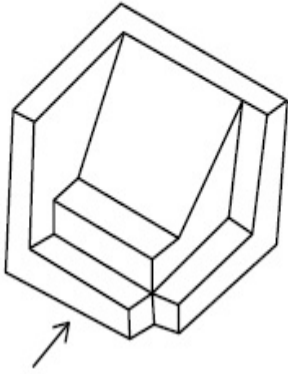70819145832.  

70819145833.  

70819145834.  
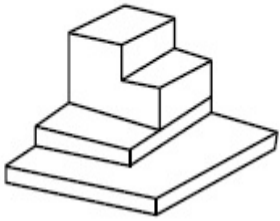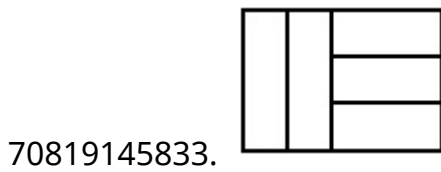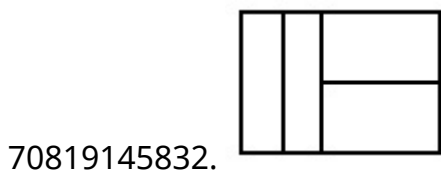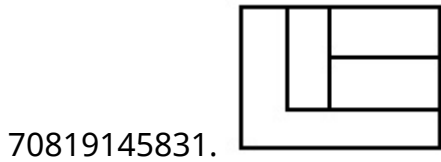
**Question Number : 77 Question Id : 70819113825 Question Type : MCQ Option Shuffling : Yes**
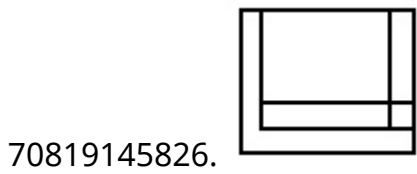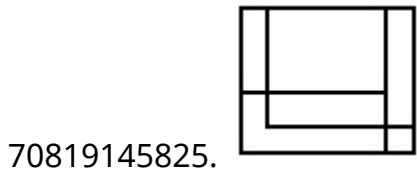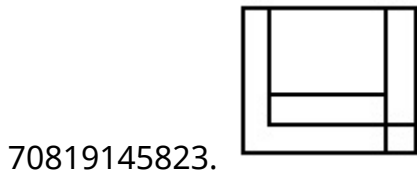
**Is Question Mandatory : No**

**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 :

70819145835. 

70819145836. 

70819145837. 

70819145838. 
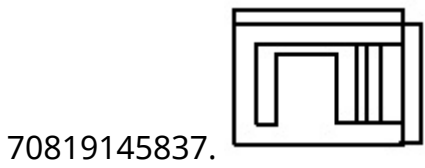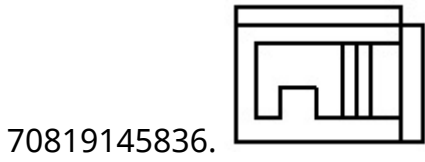
**Question Number : 78 Question Id : 70819113826 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

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



(A)     (B)

(C)     (D)

**Options :**

70819145839. (A) and (B)

70819145840. (B) and (C)

70819145841. (C) and (D)
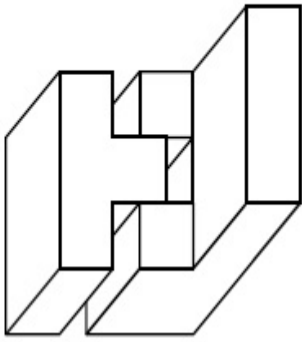
70819145842. (D) and (A)

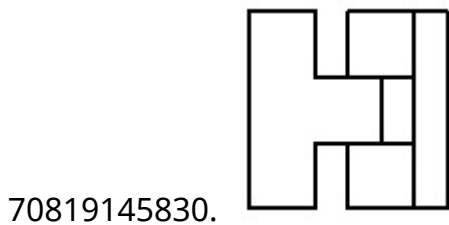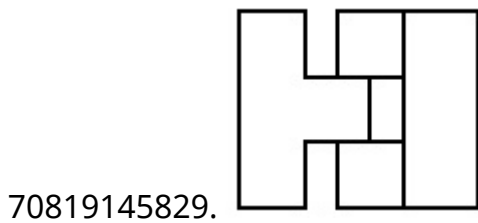**Question Number : 79 Question Id : 70819113827 Question Type : MCQ Option Shuffling : Yes**

**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 :**

70819145843.



70819145844.



70819145845.



70819145846.
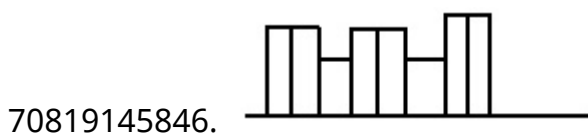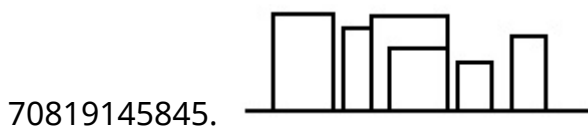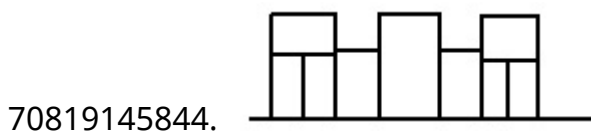


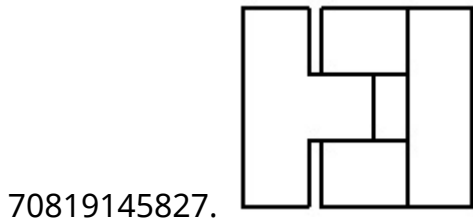**Question Number : 80 Question Id : 70819113828 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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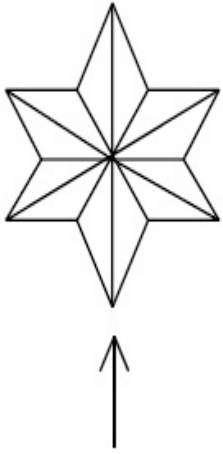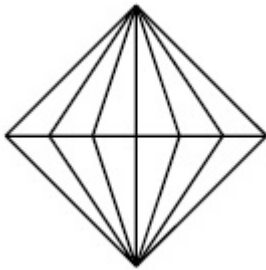
**Options :**

70819145847.
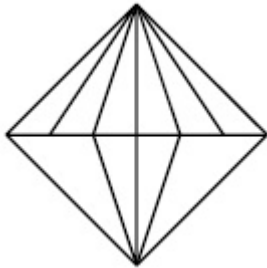
70819145848.
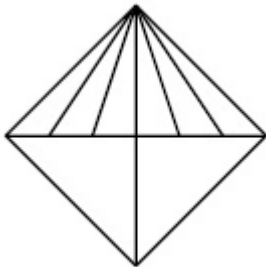
70819145849.
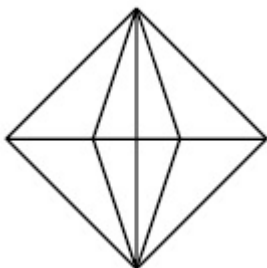
70819145850.

# Planning

| | |
|---|---|
| **Section Id :** | 708191486 |
| **Section Number :** | 4 |
| **Section type :** | Online |
| **Mandatory or Optional :** | Mandatory |
| **Number of Questions :** | 25 |
| **Number of Questions to be attempted :** | 25 |
| **Section Marks :** | 100 |
| **Mark As Answered Required? :** | Yes |
| **Sub-Section Number :** | 1 |
| **Sub-Section Id :** | 708191766 |
| **Question Shuffling Allowed :** | Yes |

**Question Number : 81 Question Id : 70819113829 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

Which of these industries did not exist in London before the first world war ?

**Options :**

70819145851. Automobile

70819145852. Clothing and Textile

70819145853. Printing
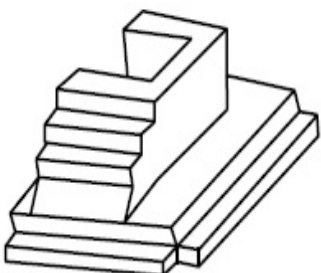
70819145854. Iron and Steel

**Question Number : 82 Question Id : 70819113830 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

A carbon footprint is the amount of _____ released into the atmosphere.

**Options :**

70819145855. Nitrogen

70819145856. Greenhouse gas

70819145857. Ozone

70819145858. Suspended Particulate Matter (SPM)

**Question Number : 83 Question Id : 70819113831 Question Type : MCQ Option Shuffling : Yes**

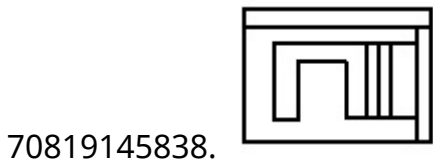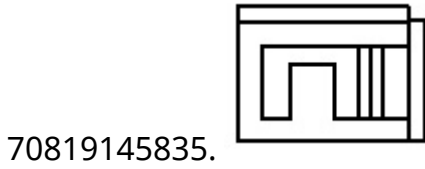**Is Question Mandatory : No**

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

A.  KodaiKanal
B.  Kullu
C.  Mount Abu
D.  Panchgani
E.  Pahalgam

Arrange the above hill stations in the correct sequence from south to north in India.

Choose the correct answer from the options given below :

**Options :**

70819145859. $E \rightarrow D \rightarrow B \rightarrow A \rightarrow C$

70819145860. $E \rightarrow B \rightarrow C \rightarrow D \rightarrow A$

70819145861. $C \rightarrow A \rightarrow B \rightarrow D \rightarrow E$

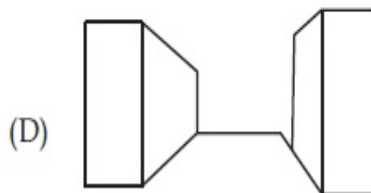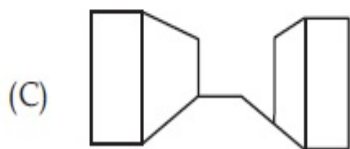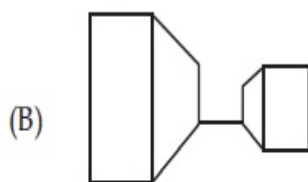70819145862. $A \rightarrow D \rightarrow C \rightarrow B \rightarrow E$

**Question Number : 84 Question Id : 70819113832 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Planning Commission in India has been replaced by :

**Options :**

70819145863. Mo HUA

70819145864. NITI Aayog

70819145865. NIUA
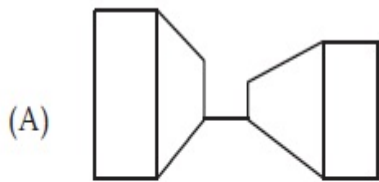
70819145866. PFI

**Question Number : 85 Question Id : 70819113833 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

When was the special Economic Zone's Act enacted in India ?

**Options :**
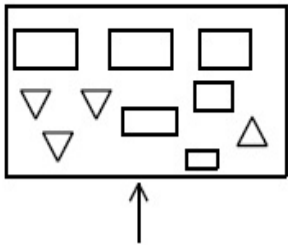
70819145867. 2005

70819145868. 2007

70819145869. 2009

70819145870. 2011

**Question Number : 86 Question Id : 70819113834 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

What is the full form of NHAI ? Choose the correct answer.

**Options :**

70819145871. National Horticulture Association of India.

70819145872. National Heritage Authority of India.

70819145873. National Hydroelectric Power Authority of India.

70819145874. National Highway Authority of India.

**Question Number : 87 Question Id : 70819113835 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

How many Sustainable Development Goals were adopted by the United Nations ?

**Options :**

70819145875. 15

70819145876. 16

70819145877. 17

70819145878. 18

**Question Number : 88 Question Id : 70819113836 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

In which year, the first industrial policy by Government of India was announced ?

**Options :**

70819145879. 1947

70819145880. 1948

70819145881. 1950

70819145882. 1949

**Question Number : 89 Question Id : 70819113837 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

Planning of Barcelona city in Spain is known for its :

**Options :**

70819145883. superblocks

70819145884. radial pattern

70819145885. high rise development

70819145886. waterbased transport

**Question Number : 90 Question Id : 70819113838 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

Which of these is not an industrial city ?

**Options :**

70819145887. Durgapur

70819145888. Vishakhapatnam

70819145889. Bhubaneshwar

70819145890. Bhilai

**Question Number : 91 Question Id : 70819113839 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Which of these schemes / programmes by Government of India is linked to heritage cities ?

**Options :**

70819145891. AMRUT

70819145892. Make in India

70819145893. HRIDAY

70819145894. UDAY

**Question Number : 92 Question Id : 70819113840 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Which one of the following south Indian states has the highest ground water utilization (in percent) of its total groundwater potential ?

**Options :**

70819145895. Tamil Nadu

70819145896. Karnataka

70819145897. Andhra Pradesh

70819145898. Kerala

**Question Number : 93 Question Id : 70819113841 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Survey of India was established in :

**Options :**

70819145899. 1886

70819145900. 1876

70819145901. 1866

70819145902. 1896

**Question Number : 94 Question Id : 70819113842 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

As per 73$^{rd}$ amendment act (73$^{rd}$ CAA) 1992 first time one third (1/3) reservation for women was provided in which of the following ?

**Options :**

70819145903. Lok Sabha

70819145904. State Legislative Assembly

70819145905. Cabinets

70819145906. Panchayati Raj bodies

**Question Number : 95 Question Id : 70819113843 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Map Reading.
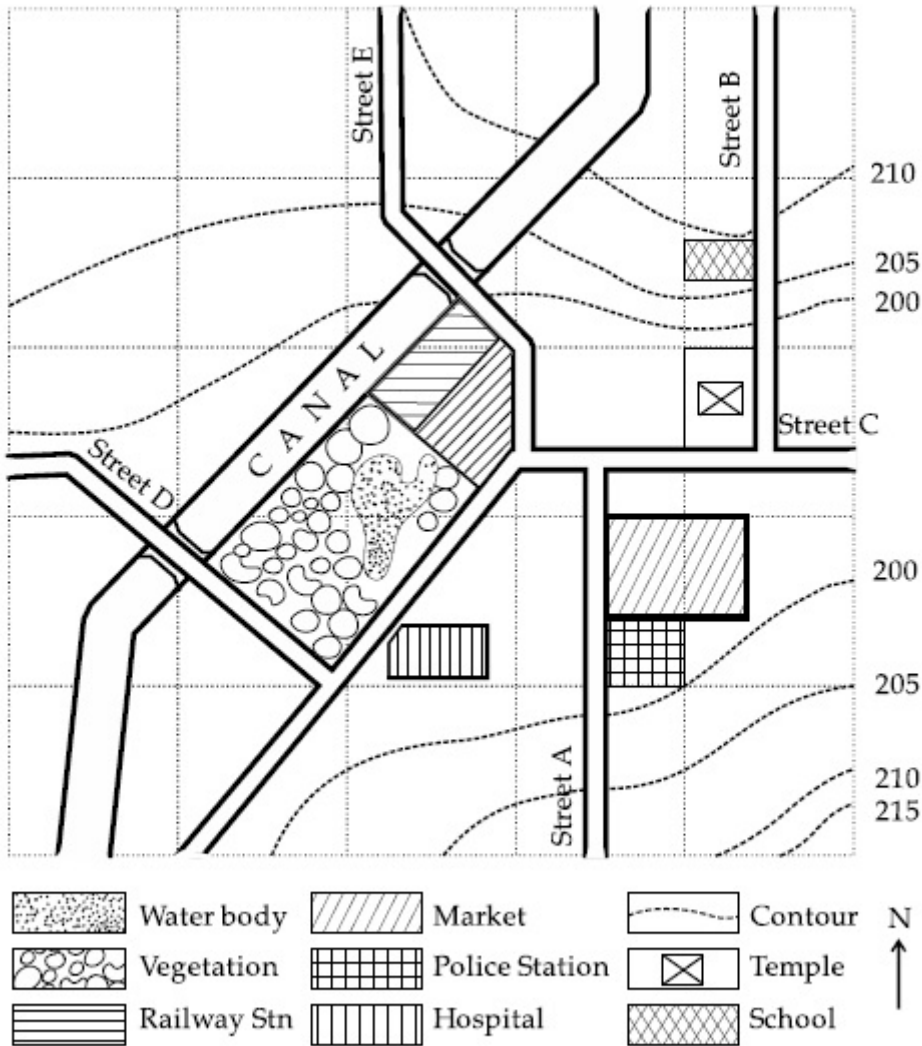


With reference to the diagram, choose the correct statement.

**Options :**

70819145907. Slope of land on which school is located is flatter than the slope of land on which hospital is located.

70819145908. Slope of land on which police station is located is steeper than the slope of land on which school is located.

70819145909. Slope of land on which school is located is steeper than the slope of land on which temple is located.

70819145910.

Slope of land on which school is located is the same as the slope of land on which temple is located.

**Question Number : 96 Question Id : 70819113844 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Map Reading.
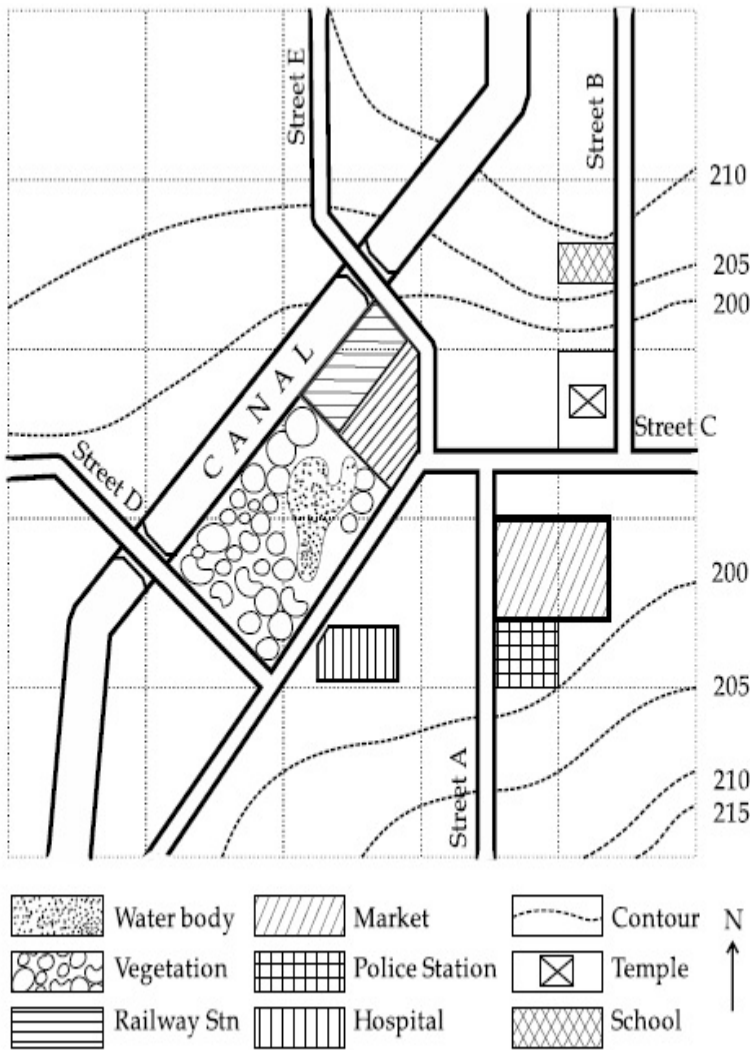


In the given diagram, for a person to travel from railway station to temple, one will have to move in _____ direction.

**Options :**

70819145911. North

70819145912. North - East

70819145913. South - West


70819145914. East


**Question Number : 97 Question Id : 70819113845 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Map Reading.
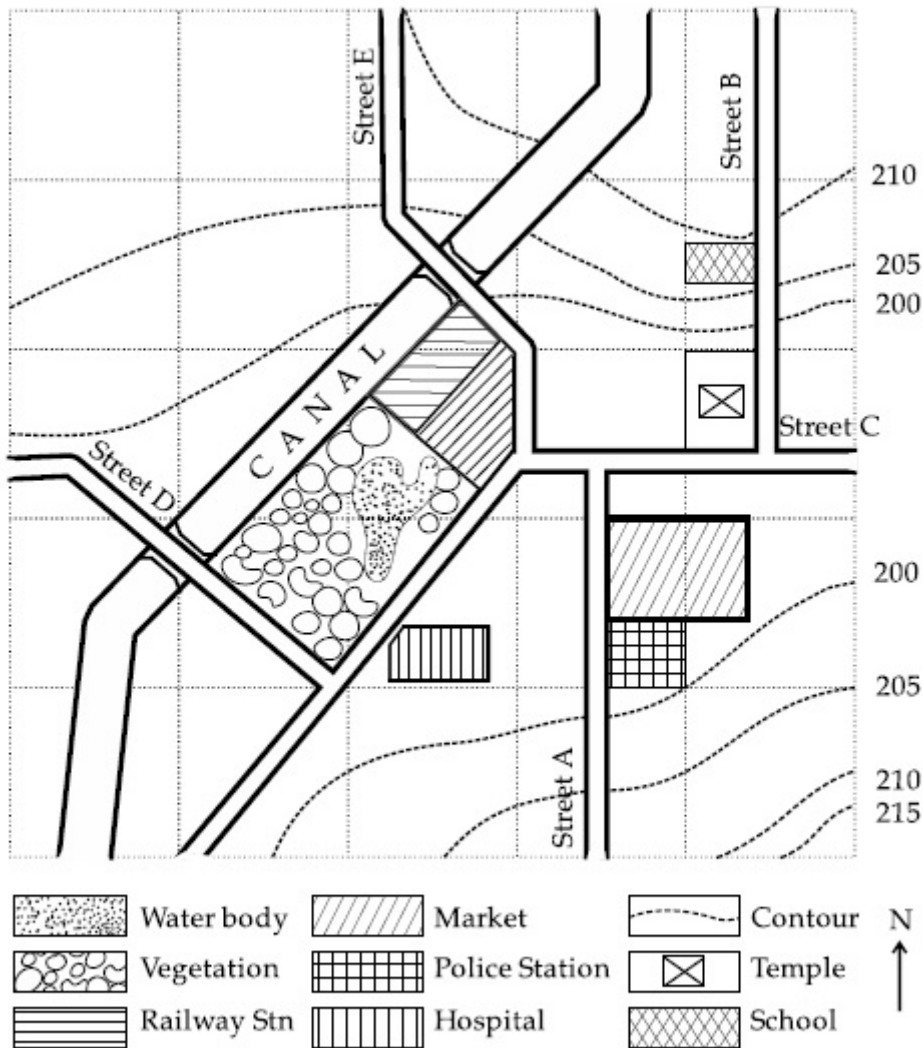


In the given diagram, water body is located at a level :

**Options :**

70819145915. 5 m higher than police station.


70819145916. 5 m higher than school.

70819145917. same level as police station.

70819145918. same level as school.

**Question Number : 98 Question Id : 70819113846 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

The following pie-charts show the distribution of students enrolled in higher secondary and in college education, with respect to the household income of their families.
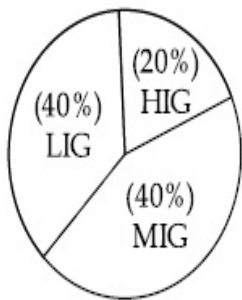


Higher Secondary Education      College Education
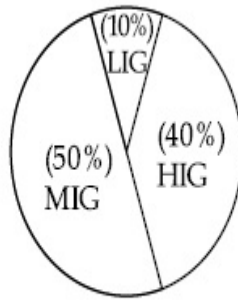
The ratio between the number of students from LIG household category studying at higher secondary to those in college is :

**Options :**

70819145919. $4 : 1$

70819145920. $1 : 5$

70819145921. $6 : 1$

70819145922. $1 : 4$

**Question Number : 99 Question Id : 70819113847 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No**

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

The surface area of earth is 510 million km². The land area is thirty percent of total surface. Urban land is three percent of total land surface. World population is 7.8 billion and fifty five percent is urban population. Find the closest correct answer.

**Options :**

70819145923.  The density of population in urban area is 1000 persons/sq.km.

70819145924.  The density of population in urban area is 849 persons/sq.km.

70819145925.  The density of population in urban area is 4290 persons/sq.km.

70819145926.  The density of population in urban area is 7800 persons/sq.km.

**Question Number : 100 Question Id : 70819113848 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Population of city A, B and C from 1981–2011.
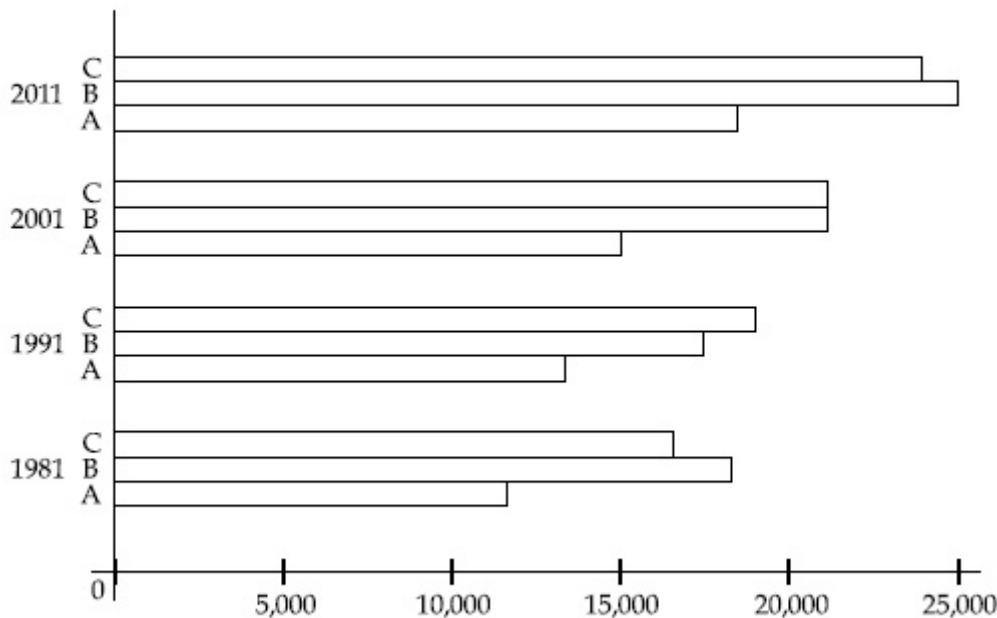


Choose the correct statement :

**Options :**

70819145927.  City A shows the increase in population from 1981 to 2011 and city C does not show the increase likewise.

70819145928.

City B shows a continuous decline in population from 1981–2011 whereas city A shows an increase.

70819145929. Population in city A is increasing in each decade from 1981 to 2001 whereas city B shows a decline from 1981 to 1991 and then it increases from 1991 to 2001.

70819145930. City C shows continuous decline in population in various decades whereas city B shows increase.

**Question Number : 101 Question Id : 70819113849 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

In a survey, the speeds of 100 vehicles were observed. The following table gives the distribution of vehicle speed and the corresponding number of vehicles.

| Vehicle Speed ($kmhr^{-1}$) | No. of Vehicles |
|---|---|
| 20 | 6 |
| 25 | 20 |
| 28 | 24 |
| 29 | 28 |
| 33 | 15 |
| 38 | 4 |
| 40 | 2 |
| 45 | 1 |

The median speed of the vehicles is :

**Options :**

70819145931. $26 \ kmhr^{-1}$

70819145932. $21.5 \ kmhr^{-1}$

70819145933. $30 \ kmhr^{-1}$

70819145934. $28.5 \ kmhr^{-1}$

**Question Number : 102 Question Id : 70819113850 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Hundreds of Shanty towns line the river banks, train tracks, and garbage dumps in the Filipino capital. Around a quarter of its 12 million are considered 'informal settlers'. Manila is starkly representative of a global problem. According to the United Nations, about a quarter of the World's urban population lives in slums.

Slum tourism takes outsiders through their most impoverished marginalized districts. Slum tourism sparks considerable debate around an uncomfortable moral dilemma. Many consider the practice little more than slack-jawed privileged people gawking at those less fortunate. Others argue they raise awareness and provide numerous examples of giving back to the local communities.

Which of the following best justify 'Slum Tourism' in the above paragraph ?

**Options :**

70819145935. As a charity by privileged people.

70819145936. As a way to reduce crime.

70819145937. As a way to sensitize travellers about poor living conditions in the society.

70819145938. As an adventure activity.

**Question Number : 103 Question Id : 70819113851 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Hundreds of Shanty towns line the river banks, train tracks, and garbage dumps in the Filipino capital. Around a quarter of its 12 million are considered 'informal settlers'. Manila is starkly representative of a global problem. According to the United Nations, about a quarter of the World's urban population lives in slums.

Slum tourism takes outsiders through their most impoverished marginalized districts. Slum tourism sparks considerable debate around an uncomfortable moral dilemma. Many consider the practice little more than slack-jawed privileged people gawking at those less fortunate. Others argue they raise awareness and provide numerous examples of giving back to the local communities.

The nearest meaning of 'Gawking' in this paragraph would be :

**Options :**

70819145939. Learning

70819145940. Staring

70819145941. Peeping

70819145942. Gloating

**Question Number : 104 Question Id : 70819113852 Question Type : MCQ Option Shuffling : Yes**

**Is Question Mandatory : No**

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

Given below are two statements : one is labelled as Assertion A and the other is labelled as Reason R.

Assertion A : Over the last two decades collective attention span is decreasing.

Reason R : Quick availability and rapid access to large amount of information leads to loss of interest in one topic very quickly.

In the light of the above statements, choose the correct answer from the options given below :

**Options :**

70819145943. Both A and R are true and R is the correct explanation of A

70819145944. Both A and R are true but R is NOT the correct explanation of A

70819145945. A is true but R is false

70819145946.    A is false but R is true

Question Number : 105 Question Id : 70819113853 Question Type : MCQ Option Shuffling : Yes

**Is Question Mandatory : No**

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

Given below are two statements : one is labelled as Assertion A and the other is labelled as Reason R :

Assertion A : In past two decades, rate of divorce has increased in India.

Reason R : Increasing number of married couples do not want to have children.

In the light of the above statements, choose the correct answer from the options given below :

**Options :**

70819145947.    Both A and R are true and R is the correct explanation of A

70819145948.    Both A and R are true but R is NOT the correct explanation of A

70819145949.    A is true but R is false

70819145950.    A is false but R is true

# Drawing

| | |
|---|---|
| **Section Id :** | 708191487 |
| **Section Number :** | 5 |
| **Section type :** | Offline |
| **Mandatory or Optional :** | Mandatory |
| **Number of Questions :** | 2 |
| **Number of Questions to be attempted :** | 2 |
| **Section Marks :** | 100 |
| **Mark As Answered Required? :** | Yes |

**Question Number : 106 Question Id : 70819113854 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.

<div align="center">OR</div>

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



**Question Number : 107 Question Id : 70819113855 Question Type : SUBJECTIVE**

**Correct Marks : 50**

Draw a scene of a Kite festival by using colors.

<div align="center">OR</div>

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

(i)    CUBOID A : SIZE 2 cm×2 cm×2 cm, 5 Nos.
(ii)   CUBOID B : SIZE 5 cm×2 cm×2 cm, 4 Nos.
Use 'Cool Colorscheme' for composition.