National Testing Agency

Question Paper Name :	JEE Main 2021 Paper 2A (B.Arch) Sep 9 Shift 2
Subject Name :	Paper 2A (B.Arch)
Duration :	180
Total Marks :	400

Paper 2A (B.Arch)

Mathematics Section A

Section Number :	1
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	80

Question Number : 1 Question Id : 6760337650 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The domain of the function

$$f(x)=\frac{\sqrt{2x-1}}{\sqrt{3-4x}\sqrt{4-5x}}\cdot\log_{12}\left(\frac{x+3}{x+5}\right)\text{ is}$$

Options :

1. $\left[\frac{1}{2},\frac{3}{5}\right]$

2. $\left[\frac{1}{2},\frac{4}{5}\right)$

3. $\left(\frac{1}{2},\frac{7}{8}\right)$

4. $\left[\frac{1}{2},\frac{3}{4}\right)$

Question Number : 2 Question Id : 6760337651 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If $\alpha,\beta\in\mathbb{C}$ are the distinct roots of the equation $x^2+\left(\sqrt{2}\right)x+2=0$, then $\alpha^{11}+\beta^{11}$ is equal to

Options :

1. 16

2. $-16\sqrt{2}$

3. $32\sqrt{2}$

4. $-32\sqrt{2}$

Question Number : 3 Question Id : 6760337652 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If $A = \begin{bmatrix} a_1 & a_2 & a_3 \\ a_4 & a_5 & a_6 \\ a_7 & a_8 & a_9 \end{bmatrix}$ where $a_1, a_2, a_3, \ldots$ form a G.P. with common ratio $r > 1$, then the entries in each column of A^5 from a G.P. with common ratio

Options :

1. r

2. r^2

3. r^3

4. r^5

Question Number : 4 Question Id : 6760337653 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If the system of linear equations

$2x+3y-2z=0\,;\,2x-y+3z=0\,;\,7x+\lambda y-z=0$ has a non-zero solution (x, y, z), then $\frac{xz}{y^2}$ is equal to

Options :

1. $\frac{-7}{8}$

2. $\frac{5}{4}$

3. $\frac{-14}{25}$

4. $\frac{5}{16}$

Question Number : 5 Question Id : 6760337654 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The value of ${}^{40}C_{31} + \sum_{r=0}^{10} {}^{40+r}C_{10+r}$ is equal to

Options :

1. ${}^{51}C_{20}$

2. ${}^{50}C_{20}$

3. $2\cdot{}^{45}C_{15}$

4. ${}^{50}C_{19}$

Question Number : 6 Question Id : 6760337655 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If A is the sum of even terms and B that of odd terms in the G.P.

$8,\ 4\sqrt{3},\ 6,\ 3\sqrt{3},\ldots$ having 31 terms, then $\frac{A}{B}$ is equal to

Options :

1. $\frac{2\sqrt{3}\left(4^{16}-3^{16}\right)}{4^{15}-3^{15}}$

2. $\frac{4\left(4^{16}-3^{16}\right)}{4^{15}-3^{15}}$

3. $\frac{4\left(4^{15}-3^{15}\right)}{4^{16}-3^{16}}$

4. $\frac{2\sqrt{3}\left(4^{15}-3^{15}\right)}{4^{16}-3^{16}}$

Question Number : 7 Question Id : 6760337656 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Let $g=f^{-1}$ and $f'(x)=\frac{1}{1+x^3}$, $0<x<1$. Then $g'(x)$ is equal to

Options :

1. $\left(1+\left(f(x)\right)^3\right)^{-1}$

2. $\left(1+\left(g(x)\right)^3\right)^{-1}$

3. $1+\left(g(x)\right)^3$

4. $1+\left(f(x)\right)^3$

Question Number : 8 Question Id : 6760337657 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If tangents are drawn from (0, 0) to the curve $y = \cos x$, then the points of contact of the tangents lie on the curve

Options :

1. $x^2-y^2=x^2y^2$

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

3. $y^2-x^2=x^2y^2$

4. $\left(1+x^2\right)y^2=\left(1-y^2\right)x^2$

Question Number : 9 Question Id : 6760337658 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If one ant is moving along the curve $y = x^2$ and the other stays at the point (0, 1), then the shortest distance between the two ants is

Options :

1. $\sqrt{2}$

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

3. 1

4. $\frac{\sqrt{3}}{2}$

Question Number : 10 Question Id : 6760337659 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The integral $\int\frac{-4\sin x+5\sin(2x)}{6\sin x-5\sin(2x)}dx$ is equal to

(where C is a constant of integration)

Options :

1. $-x+\frac{1}{2}\log_e\left|\frac{2\sin\frac{x}{2}-\cos\frac{x}{2}}{2\sin\frac{x}{2}+\cos\frac{x}{2}}\right|+C$

2. $-x+\frac{1}{2}\log_e\left|\frac{\sin\frac{x}{2}-\cos\frac{x}{2}}{\sin\frac{x}{2}+\cos\frac{x}{2}}\right|+C$

3. $-x+\frac{1}{4}\log_e\left|\frac{2\sin\frac{x}{2}-\cos\frac{x}{2}}{2\sin\frac{x}{2}+\cos\frac{x}{2}}\right|+C$

4. $-x+\frac{1}{4}\log_e\left|\frac{\sin\frac{x}{2}-\cos\frac{x}{2}}{\sin\frac{x}{2}+\cos\frac{x}{2}}\right|+C$

Question Number : 11 Question Id : 6760337660 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The value of $\frac{\int_0^1\left(1-x^3\right)^4dx}{\int_0^1\left(1-x^3\right)^3dx}$ is

Options :

1. $\frac{20}{21}$

2. $\frac{21}{20}$

3. $\frac{12}{13}$

4. $\frac{13}{12}$

Question Number : 12 Question Id : 6760337661 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The solution of the differential equation,

$\frac{dy}{dx} = \frac{\sqrt{1-y^2}}{y}$ which satisfies $y(0) = 1$, is

Options :

1. $x - \sqrt{1-y^2} = 0$

2. $x + \sqrt{1-y^2} = 0$

3. $y - \sqrt{1-x^2} = 0$

4. $2x - \sqrt{1-y^2} = 0$

Question Number : 13 Question Id : 6760337662 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If two vertices of a ΔABC are A(1, 1) and B(2, 3) and its area is 3 sq. units, then the locus of the third vertex of such triangles which lie above the line AB, is

Options :

1. $2x - y + 5 = 0$

2. $2x + y - 5 = 0$

3. $2x - y - 7 = 0$

4. $2x - y + 7 = 0$

Question Number : 14 Question Id : 6760337663 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The distance of the point (7, 1) from the focus of the parabola $x^2 - 8x + 16y = 0$ is

Options :

1. 4

2. 5

3. 6

4. 8

Question Number : 15 Question Id : 6760337664 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If the line $\alpha x + \beta y = 1$ touches the ellipse $a^2x^2 + b^2y^2 = 1$, then the locus of the point $\left(\frac{\alpha}{2}, \frac{\beta}{2}\right)$ is

Options :

1. $\frac{x^2}{a^2}+\frac{y^2}{b^2}=\frac{1}{2}$

2. $\frac{x^2}{a^2}+\frac{y^2}{b^2}=\frac{1}{4}$

3. $\frac{x^2}{a^2}-\frac{y^2}{b^2}=\frac{1}{2}$

4. $a^2x^2+b^2y^2=\frac{1}{4}$

Question Number : 16 Question Id : 6760337665 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The image of the point (–1, 0, 0) in the plane, $x - y + z + 3 = 0$ lies on the plane

Options :

1. $3x - 3y - 3z + 7 = 0$

2. $3x - 3y - 3z + 4 = 0$

3. $6x - 3y - 3z + 7 = 0$

4. $6x + 3y - 3z + 4 = 0$

Question Number : 17 Question Id : 6760337666 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Let $x_1, x_2, \ldots, x_n$ be n observations and let $w_i = lx_i + k$ ($i = 1, 2, \ldots, n$), where k and l ($l > 0$) are some constants. If the ordered pairs (mean, standard deviation) of x_i's and w_i's are (48, 12) and (55, 15) respectively, then $\frac{k}{l}$ equals

Options :

1. -4

2. -2

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

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

Question Number : 18 Question Id : 6760337667 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If x, y and z are the lengths of the perpendiculars drawn from circumcentre of a ΔABC to its sides BC, CA and AB respectively and $\frac{a}{x}=\alpha, \frac{b}{y}=\beta, \frac{c}{z}=\gamma$, where a, b and c are the lengths of the sides BC, CA and AB respectively ; then $\frac{3\alpha\beta\gamma}{\alpha+\beta+\gamma}$ is equal to

Options :

1. 3

2. 6

3. 12

4. 18

Question Number : 19 Question Id : 6760337668 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Let $f(x)=\sin\left[\cot^{-1}\left\{\cos\left(\tan^{-1}x\right)\right\}\right]$ be a function defined on the real line. Then the value of $f\left(\frac{\pi}{e}\right)$ is

Options :

1. $\frac{\pi^2-e^2}{\pi^2+2e^2}$

2. $\sqrt{\frac{\pi^2+e^2}{\pi^2+2e^2}}$

3. $\sqrt{\frac{\pi^2-e^2}{2\pi^2-e^2}}$

4. $\frac{\pi^2e^2}{\pi^2+2e^2}$

Question Number : 20 Question Id : 6760337669 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The Boolean expression $(\sim p \vee q) \wedge (p \vee \sim q)$ is equivalent to

Options :

1. $p \Rightarrow q$

2. $q \Rightarrow p$

3. $(p \Rightarrow q) \vee (q \Rightarrow p)$

4. $(p \Rightarrow q) \wedge (q \Rightarrow p)$

Mathematics Section B

Section Number :	2
Number of Questions :	10
Number of Questions to be attempted :	5
Section Marks :	20

Question Number : 21 Question Id : 6760337670 Question Type : SA Correct Marks : 4 Wrong Marks : 0

The total number of solutions $\{(x, y) : x, y \in \mathbb{R}\}$, for which the complex numbers $3 + ix^2y$ and $x^2 - y - 4i$ are conjugate of each other, is _____.

Question Number : 22 Question Id : 6760337671 Question Type : SA Correct Marks : 4 Wrong Marks : 0

If $\begin{vmatrix} x-3 & 4x & 4x \\ 4x & x-3 & 4x \\ 4x & 4x & x-3 \end{vmatrix} = 3(Ax - B)(Ax + 3B)^2$, then $(A + B)(A - B)$ is equal to _____.

Question Number : 23 Question Id : 6760337672 Question Type : SA Correct Marks : 4 Wrong Marks : 0

If A and B are respectively the coefficients of x^{14} and $\frac{1}{x^{16}}$ in the expansion of $\left(2x - \frac{1}{2x}\right)^{20}$ and $AB = k\,2^m$; where k is an odd integer, then m is equal to _____.

Question Number : 24 Question Id : 6760337673 Question Type : SA Correct Marks : 4 Wrong Marks : 0

The sum of the remainders when $S = 3 + 6 + 12 + \ldots + 3 \cdot 2^{19}$ is divided by 3, 4, 5 and 6 is _____.

Question Number : 25 Question Id : 6760337674 Question Type : SA Correct Marks : 4 Wrong Marks : 0

If for a real function f, $f(1) = 3$ and $f'(1) = 1$, then $\lim\limits_{x \to 1} \frac{3e^{(x-1)} - f(x)}{(x-1)}$ is equal to _____.

Question Number : 26 Question Id : 6760337675 Question Type : SA Correct Marks : 4 Wrong Marks : 0

If the area of the region bounded by the curves, $y = 1 + \frac{1}{2}|2x - a|$, $x = -3$, $x = 3$, $y = 0$, where $a \in (-3, 3)$, is 16 square units, then a^2 is equal to _____.

Question Number : 27 Question Id : 6760337676 Question Type : SA Correct Marks : 4 Wrong Marks : 0

If PA and PB are the tangents to the circle, $x^2 + y^2 = 13$, drawn from a point $P\left(\frac{13}{5}, \frac{13}{5}\right)$ and A and B are the points of contact, then $(AB)^6$ is equal to _____.

Question Number : 28 Question Id : 6760337677 Question Type : SA Correct Marks : 4 Wrong Marks : 0

The distance of the point of intersection of the lines $\frac{x}{-1} = \frac{y-1}{-1} = \frac{z}{1}$ and $\frac{x}{1} = \frac{y}{2} = \frac{z-1}{-2}$ from the plane $2x - y + 2z = 7$ is _____.

Question Number : 29 Question Id : 6760337678 Question Type : SA Correct Marks : 4 Wrong Marks : 0

Let $\vec{a}=2\hat{i}-7\hat{j}-9\hat{k}$, $\vec{b}=3\hat{i}+8\hat{j}+10\hat{k}$, $\vec{c}=t\hat{i}+\hat{j}+\hat{k}$. If a vector $\vec{p}$ is perpendicular to both $\vec{a}$ and $\vec{b}$, $\vec{p}\cdot\vec{c}=20$, $\vec{p}\cdot\left(\hat{i}-\hat{j}-\hat{k}\right)=12$, then '$t$' is equal to _____.

Question Number : 30 Question Id : 6760337679 Question Type : SA Correct Marks : 4 Wrong Marks : 0

Let S = $\{a \in \mathbb{N} \mid$ there exists $\lambda, \mu \in \mathbb{Z}$ such that $\lambda a^2+\mu a+6\lambda=1\}$. If p is the probability that a randomly selected 2-digit number is an element of S, then $48p$ is equal to _____.

Aptitude Test

Section Number : 3
Number of Questions : 50
Number of Questions to be attempted : 50
Section Marks : 200

Question Number : 31 Question Id : 6760337680 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which temple complex is famous for its musical pillars ?

Options :

1. Meenakshi Temple
2. Brihadeshwara Temple
3. Hampi
4. Rameshwaram

Question Number : 32 Question Id : 6760337681 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which of the following material is most suitable for parking areas ?

Options :

1. Concrete
2. Wood
3. Marble
4. Kota stone

Question Number : 33 Question Id : 6760337682 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who is known as 'Queen of Curves' in Architecture ?

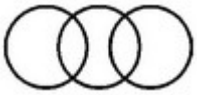
Options :

1. Jeanne Garg
2. Jane Drew
3. Jullia Morgan
4. Zaha Hadid

Question Number : 34 Question Id : 6760337683 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

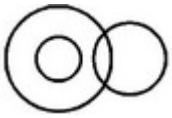
Which of the following Venn diagram correctly illustrates the relationship among the class : Cement, Structure, Concrete ?

Options :

1. 

2. 

3. 

4. 

Question Number : 35 Question Id : 6760337684 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Rings in a tree trunk represents -

Options :

1. Defects

2. Age

3. Strength

4. Weakness

Question Number : 36 Question Id : 6760337685 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Saint Gobin in Indian Market is known for which of the following product ?

Options :

1. Wooden doors

2. Glass

3. Modular kitchens

4. Wire cut bricks

Question Number : 37 Question Id : 6760337686 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Indian parliament building was designed by which Architect ?

Options :

1. Herbert Baker

2. B. V. Doshi

3. Raj Rewal

4. Sanjay Puri

Question Number : 38 Question Id : 6760337687 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which of the following material cannot be recycled ?

Options :

1. Glass

2. Terracota

3. Steel

4. Paper

Question Number : 39 Question Id : 6760337688 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

What is the size of conventional brick ?

Options :

1. 230 mm × 115 mm × 70 mm

2. 230 mm × 110 mm × 75 mm

3. 230 mm × 115 mm × 75 mm

4. 230 mm × 110 mm × 65 mm

Question Number : 40 Question Id : 6760337689 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which of the following site listed as the 1st UNESCO world heritage site in India ?

Options :

1. Bhimbetta Caves

2. Ajanta Caves

3. Jaipur City

4. Hampi

Question Number : 41 Question Id : 6760337690 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which of the following scale represents the enlargement scale ?

Options :

1. 1 : 2

2. 1 : 20

3. 50 : 1

4. 1 : 1

Question Number : 42 Question Id : 6760337691 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The Meerabai temple is located at which of the following fort ?

Options :

1. Jaigarh fort

2. Chittor fort

3. Nahargarh fort

4. Jhansi fort

Question Number : 43 Question Id : 6760337692 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

First Architecture college in Asia is located in which city ?

Options :

1. Tokyo

2. Mumbai

3. Lahore

4. Shanghai

Question Number : 44 Question Id : 6760337693 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

'Atal Tunnel' is located in which state of India ?

Options :

1. Uttarakhand

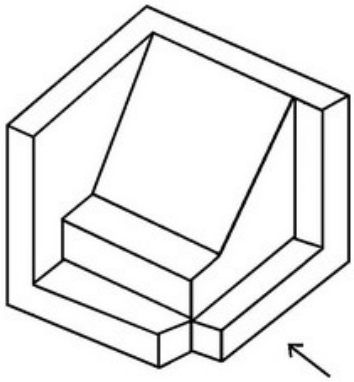
2. Jammu Kashmir

3. Punjab

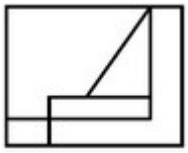
4. Himachal Pradesh

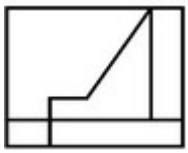
Question Number : 45 Question Id : 6760337694 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

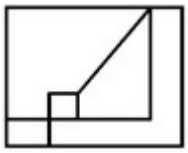
The 3D figure shows the view of an object. Identify the correct view looking in the direction of arrow from the answer figures.

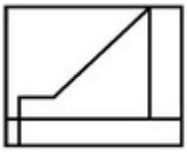


Options :

1. 

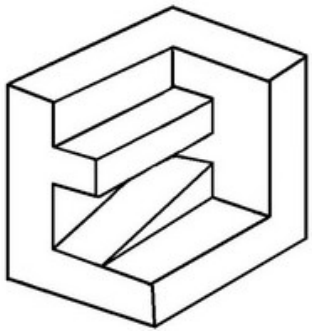
2. 

3. 

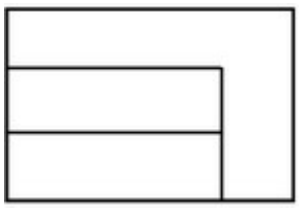
4. 

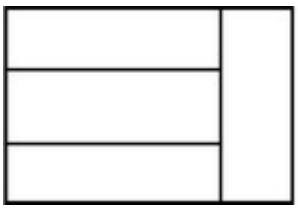
Question Number : 46 Question Id : 6760337695 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

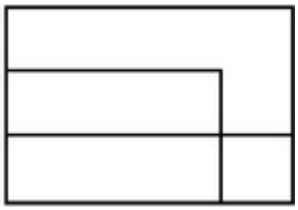
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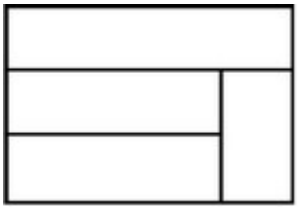


Options :

1. 

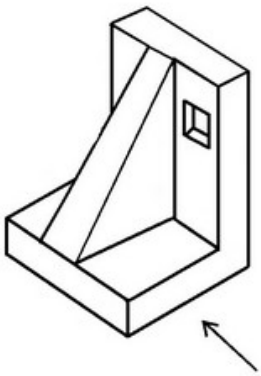
2. 

3. 

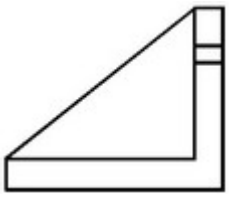
4. 

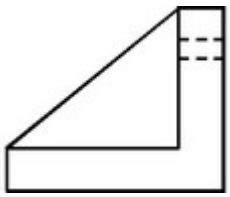
Question Number : 47 Question Id : 6760337696 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

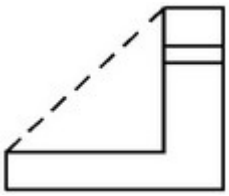
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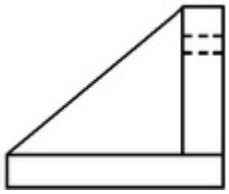


Options :

1. 

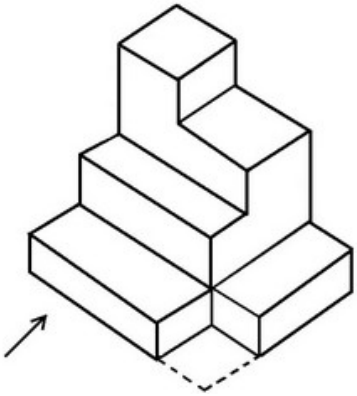
2. 

3. 

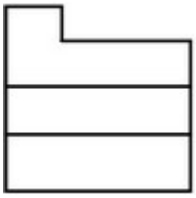
4. 

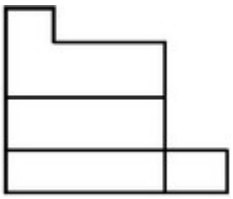
Question Number : 48 Question Id : 6760337697 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

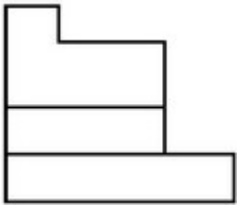
The 3D figure shows the view of an object. Identify the correct view looking in the direction of arrow from the answer figures.

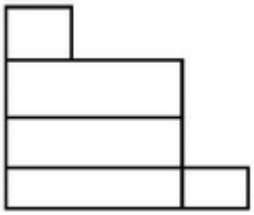


Options :

1. 

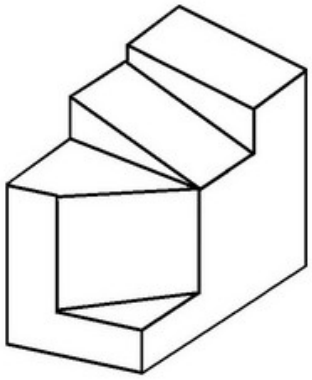
2. 

3. 

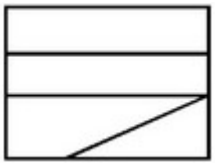
4. 

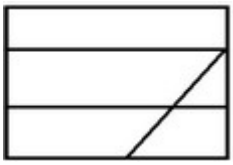
Question Number : 49 Question Id : 6760337698 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

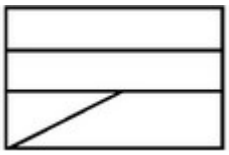
The 3D figure shows the view of an object. Identify the correct Top view from the answer figures.

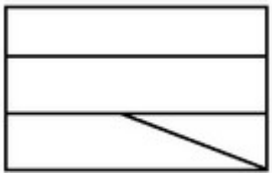


Options :

1. 

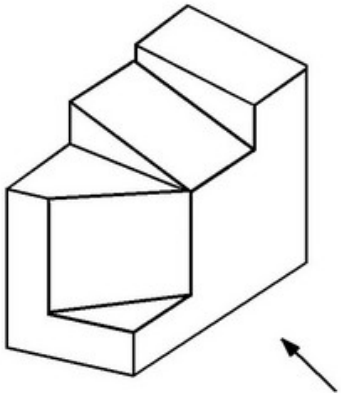
2. 

3. 

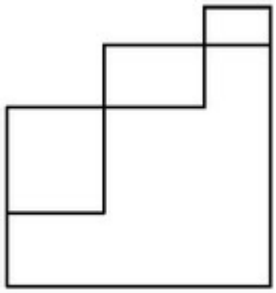
4. 

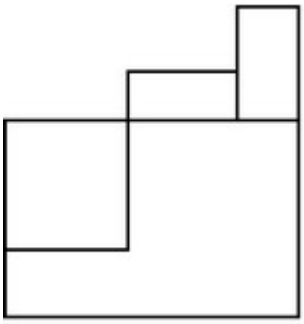
Question Number : 50 Question Id : 6760337699 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

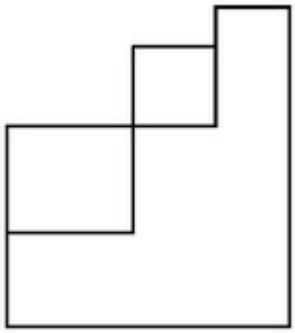
The 3D figure shows the view of an object. Identify the correct view looking in the direction of arrow from the answer figures.

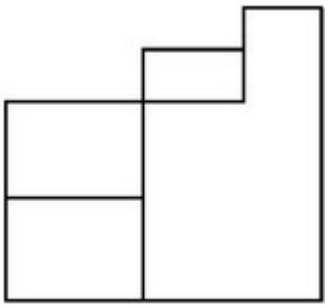


Options :

1. 

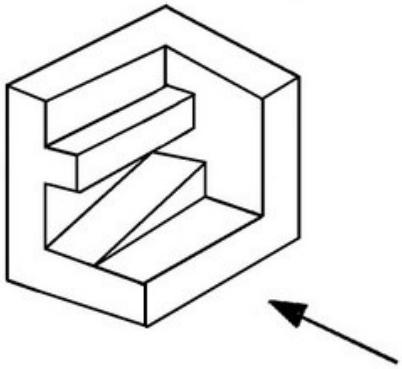
2. 

3. 

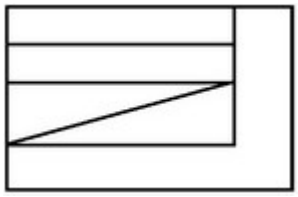
4. 

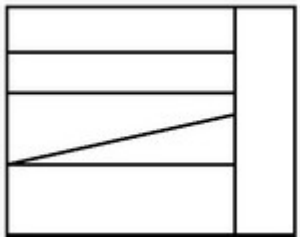
Question Number : 51 Question Id : 6760337700 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

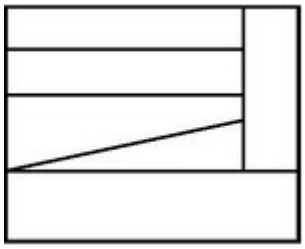
The 3D figure shows the view of an object. Identify the correct view looking in the direction of arrow from the answer figures.

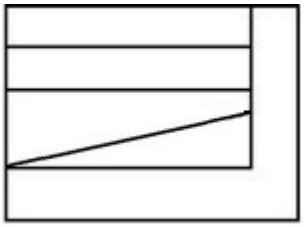


Options :

1. 

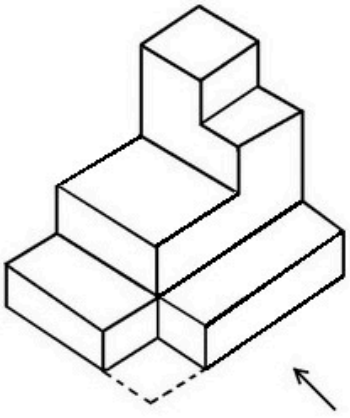
2. 

3. 

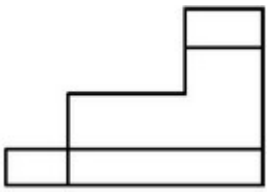
4. 

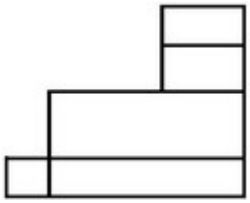
Question Number : 52 Question Id : 6760337701 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

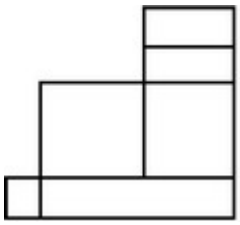
The 3D figure shows the view of an object. Identify the correct view looking in the direction of arrow from the answer figures.

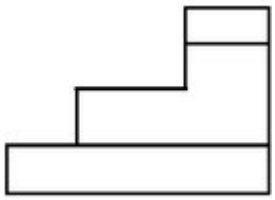


Options :

1. 

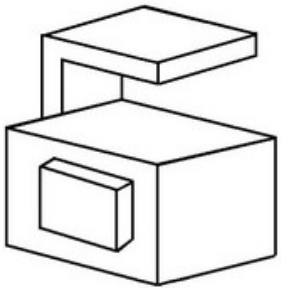
2. 

3. 

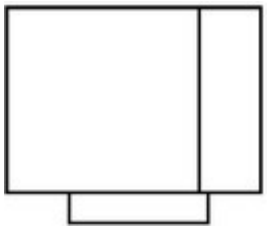
4. 

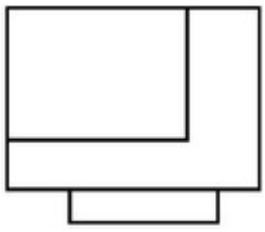
Question Number : 53 Question Id : 6760337702 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

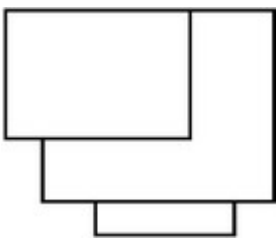
The 3D figure shows the view of an object. Identify the correct top view from the answer figures.

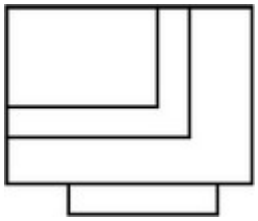


Options :

1. 

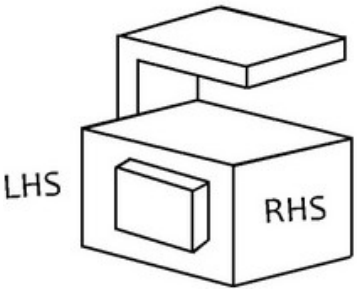
2. 

3. 

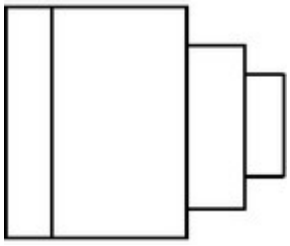
4. 

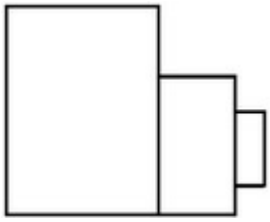
Question Number : 54 Question Id : 6760337703 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

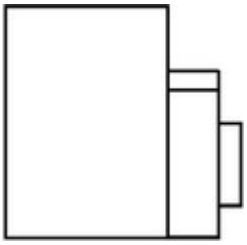
The 3D figure shows the view of an object. Identify the correct L.H.S. view, from the answer figures.

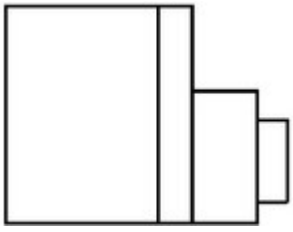


Options :

1. 

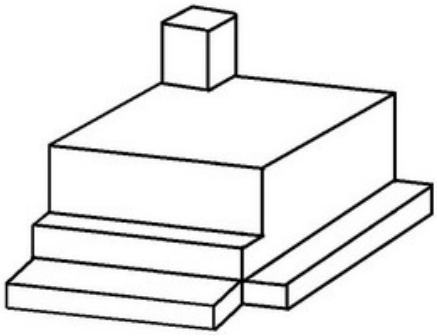
2. 

3. 

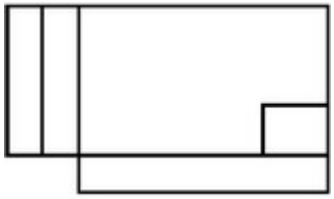
4. 

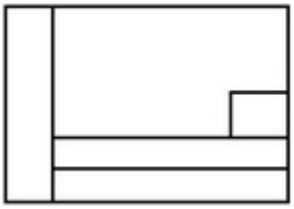
Question Number : 55 Question Id : 6760337704 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

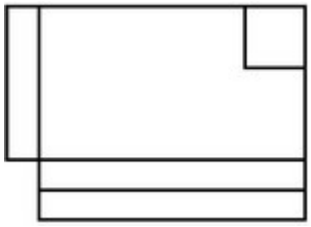
The 3D figure shows the view of an object. Identify the correct top view from the answer figures.

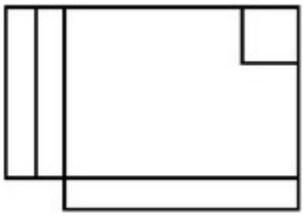


Options :

1. 

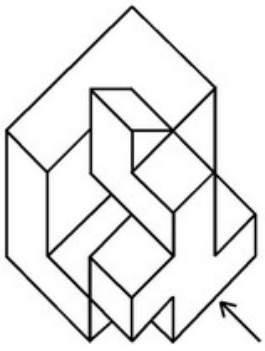
2. 

3. 

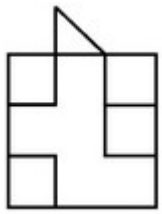
4. 

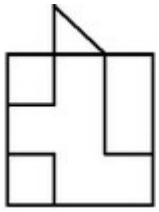
Question Number : 56 Question Id : 6760337705 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

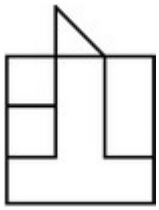
The 3D figure shows the view of an object. Identify the correct view looking in the direction of arrow from the answer figures.

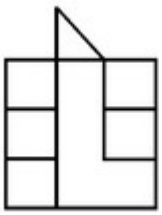


Options :

1. 

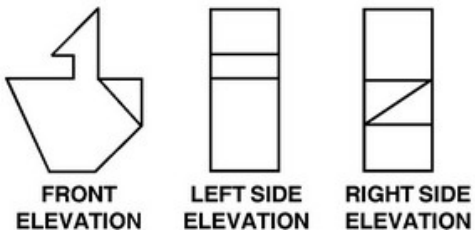
2. 

3. 

4. 

Question Number : 57 Question Id : 6760337706 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Three views (Front view, Left hand side view, Right hand side view) are given. Combine them and Identify the correct 3-Dimensional view from the answer figures.



Options :

1. 

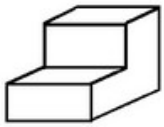
2. 

3. 

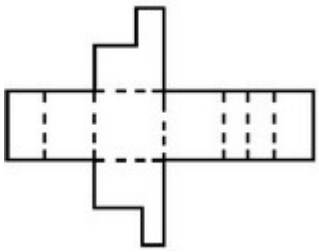
4. 

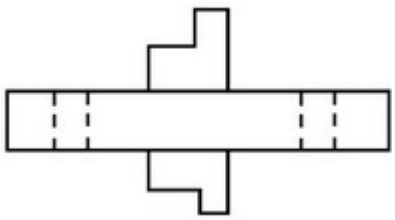
Question Number : 58 Question Id : 6760337707 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

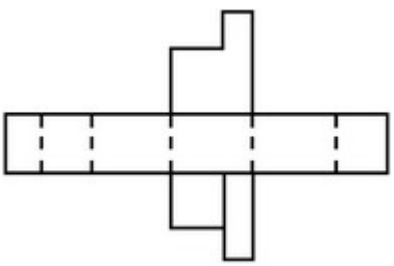
Which of the following answer figure shows the correct view of the 3-D image unfold ?

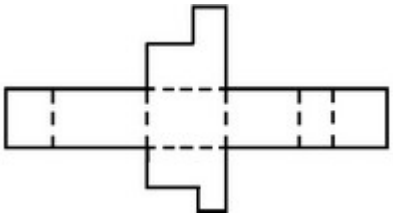


Options :

1. 

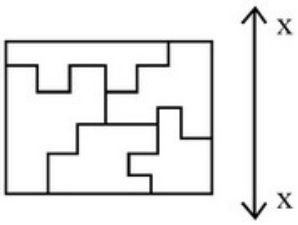
2. 

3. 

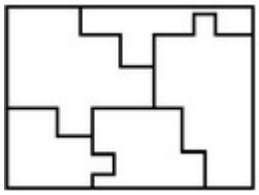
4. 

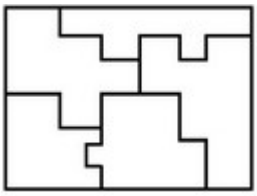
Question Number : 59 Question Id : 6760337708 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

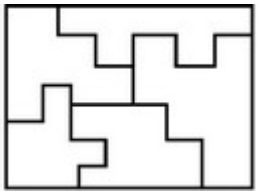
Which one of the answer figures is the correct mirror image of the problem figure with respect to x-x ?

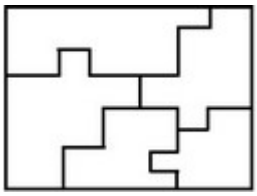


Options :

1. 

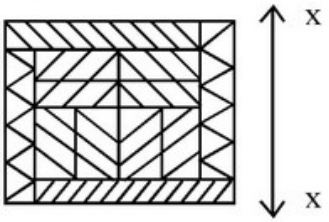
2. 

3. 

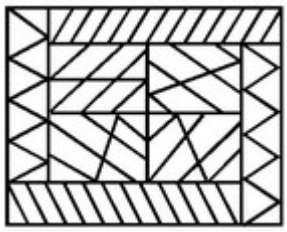
4. 

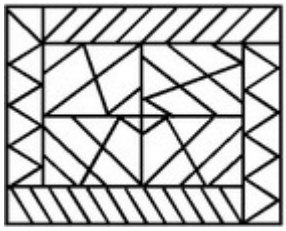
Question Number : 60 Question Id : 6760337709 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

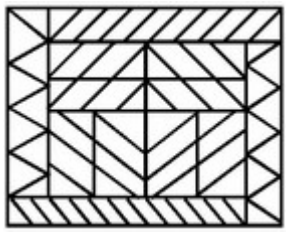
Which one of the answer figures is the correct Mirror image of the problem figure with respect to x-x ?

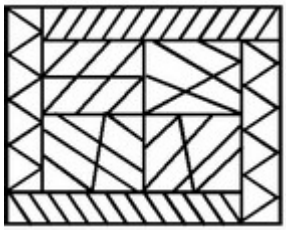


Options :

1. 

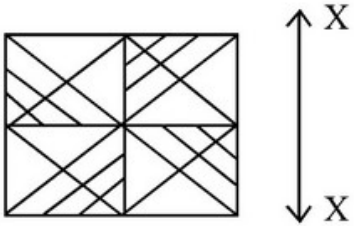
2. 

3. 

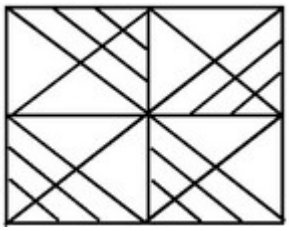
4. 

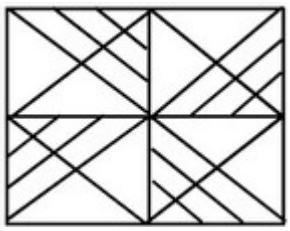
Question Number : 61 Question Id : 6760337710 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

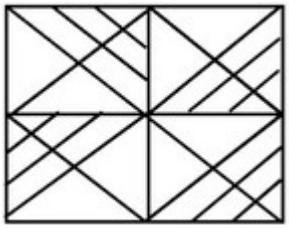
Which one of the answer figure is the correct Mirror image of the problem figure with respect to X-X ?

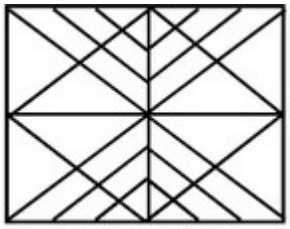


Options :

1. 

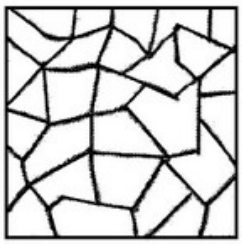
2. 

3. 

4. 

Question Number : 62 Question Id : 6760337711 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

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



Options :

1. 

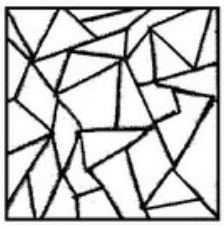
2. 

3. 

4. 

Question Number : 63 Question Id : 6760337712 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

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



Options :

1. 

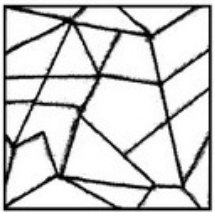
2. 

3. 

4. 

Question Number : 64 Question Id : 6760337713 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

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



Options :

1. 

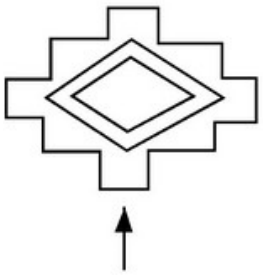
2. 

3. 

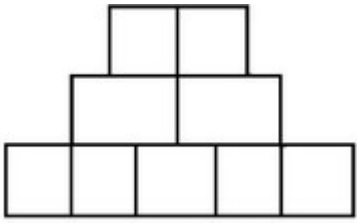
4. 

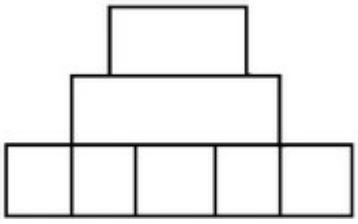
Question Number : 65 Question Id : 6760337714 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

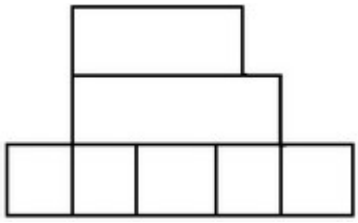
The problem figure shows the top view of an object. Identify the correct elevation from the figures looking in the direction of arrow.

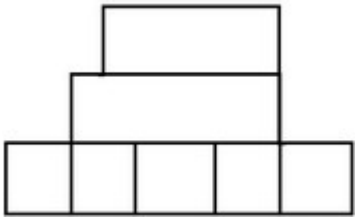


Options :

1. 

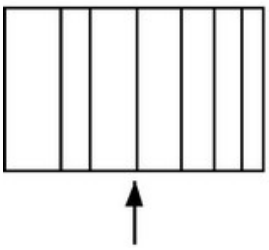
2. 

3. 

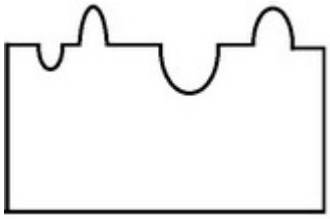
4. 

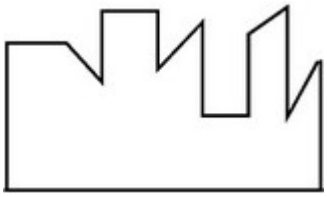
Question Number : 66 Question Id : 6760337715 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

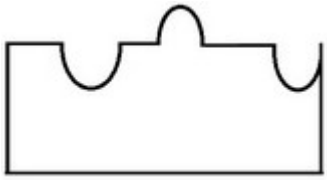
The problem figure shows the top view of an object. Identify the correct elevation from the answer figures looking in the direction of arrow.

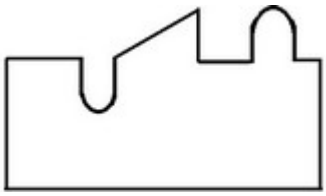


Options :

1. 

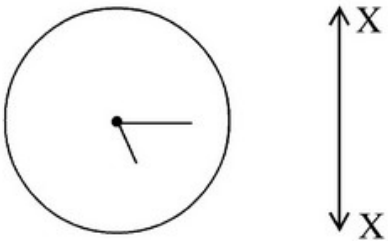
2. 

3. 

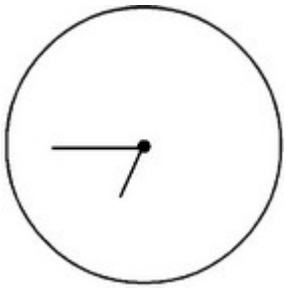
4. 

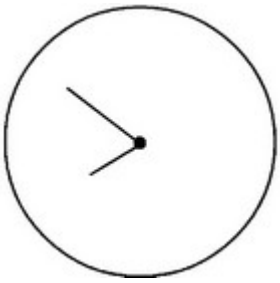
Question Number : 67 Question Id : 6760337716 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

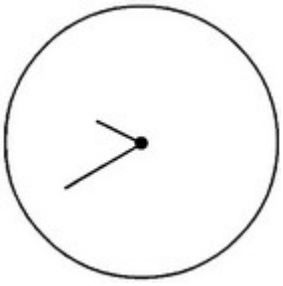
Which one of the answer figure is the correct Mirror image of the problem figure with respect to X-X ?



Options :

1. 

2. 

3. 

4. 

Question Number : 68 Question Id : 6760337717 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

'Shikara' is a type of boat found mainly in lakes of city of the following states.

Options :

1. Udaipur

2. Jammu-Kashmir

3. Kerala

4. Manipur

Question Number : 69 Question Id : 6760337718 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who amongst the following designed the 'Ram Mandir' at Ayodhya ?

Options :

1. Chandrakant Sompura

2. Hafeez Contractor

3. Anant Raje

4. Raza Kabul

Question Number : 70 Question Id : 6760337719 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which of the following group represent Primary colours ?

Options :

1. White, Black, Grey

2. Violet, Green, Orange

3. Red, Blue, Yellow

4. Red, Green, Black

Question Number : 71 Question Id : 6760337720 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

'Kedarnath' is located in which district of India ?

Options :

1. Uttarkashi

2. Uttarakhand

3. Chamoli

4. Rudraprayag

Question Number : 72 Question Id : 6760337721 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who is the Architect of 'Virasat-e-Khalsa' ?

Options :

1. I. M. Pei

2. Moshie Safdie

3. Raj Rewal

4. Bimal Patel

Question Number : 73 Question Id : 6760337722 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who was the Architect of famous 'Glass Pyramid at the Louvre Paris' ?

Options :

1. Walter Groupius

2. Charles Correa

3. I. M. Pei

4. F. L. Wright

Question Number : 74 Question Id : 6760337723 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Match the following List-I with List-II.

	List-I		List-II
A.	Madhubani painting	I.	Madhya Pradesh
B.	Shekhwati painting	II.	Orissa
C.	Pattuchitra painting	III.	Bihar
D.	Gond painting	IV.	Rajasthan

Options :

1. A-I, B-II, C-IV, D-III

2. A-III, B-IV, C-II, D-I

3. A-II, B-III, C-IV, D-I

4. A-IV, B-I, C-II, D-III

Question Number : 75 Question Id : 6760337724 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

What do you understand by 'Complementary colours' ? Choose correct answer amongst the following

Options :

1. Mixing the primary colours.

2. Colours next to each other on colour wheel.

3. Colours opposite to each other on colour wheel.

4. Mixing of secondary colours.

Question Number : 76 Question Id : 6760337725 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who worked with 'Le-corbusier' on Chandigarh planning among following architects.

Options :

1. C. P. Kukreja

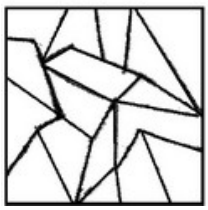
2. F. L. Wright

3. Stein Joseph

4. Raj Rewal

Question Number : 77 Question Id : 6760337726 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

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



Options :

1. 

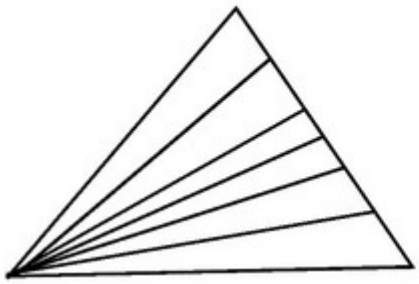
2. 

3. 

4. 

Question Number : 78 Question Id : 6760337727 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

In the following question number of triangles are ?



Options :

1. 15

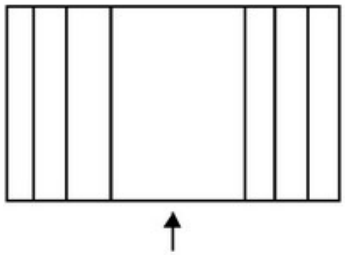
2. 19

3. 20

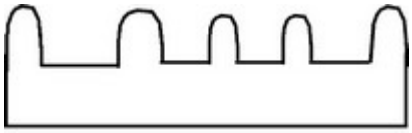
4. 21

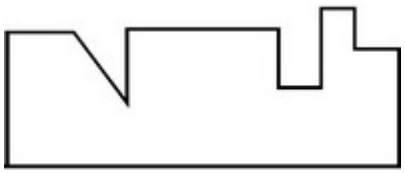
Question Number : 79 Question Id : 6760337728 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

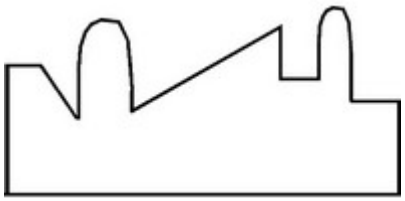
The problem figure shows the top view of an object. Identify the correct elevation from the answer figures looking in the direction of arrow.

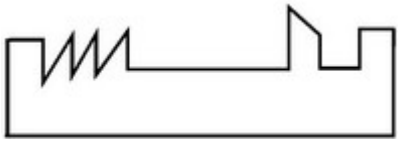


Options :

1. 

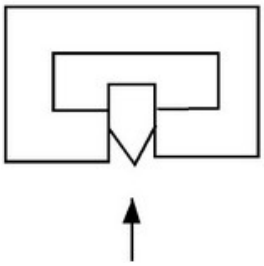
2. 

3. 

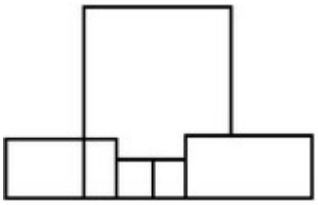
4. 

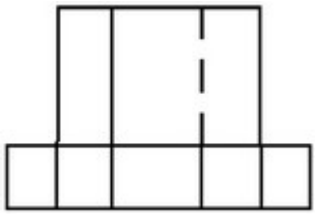
Question Number : 80 Question Id : 6760337729 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

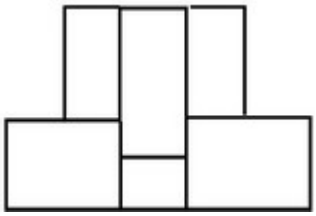
The problem figure shows the top view of an object. Identify the correct elevation from the answer figure. Looking in the direction of arrow.

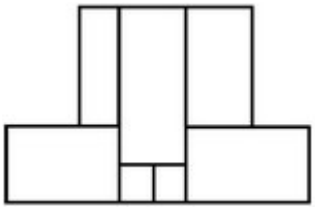


Options :

1. 

2. 

3. 

4. 

Drawing

Section Number :	4
Number of Questions :	2
Number of Questions to be attempted :	2
Section Marks :	100

Question Number : 81 Question Id : 6760337730 Question Type : SUBJECTIVE Correct Marks : 50 Wrong Marks : 0

Prepare proportionate sketch of given image in space provided for the answer. Students can use any black and white rendering technique.

OR

Create a composition by decoding image which will be aesthetically balanced. Composition can be abstract or in any form. Student can compose decoded image in any shape.



Question Number : 82 Question Id : 6760337731 Question Type : SUBJECTIVE Correct Marks : 50 Wrong Marks : 0

Create a composition of 4 triangles and 3 cubes of any sizes and render it by using complementary colours in space provided for answer in answer-sheet.

OR

Draw a picture of farmers working in the field during crop cutting.