

JEE April 2019

Roll No.	
Candidate Name	
Application No	
Test Date	07/04/2019
Test Time	2:30 PM - 5:30 PM
Subject	Paper II EH

Section : Mathematics

Q.1 Let AP and BQ be two vertical poles standing on the horizontal ground at two points A and B respectively. If $AP = 16$ m, $BQ = 22$ m and $AB = 20$ m, then the minimum value (in m^2) of $RP^2 + RQ^2$, where R is any point on AB, is :

- Options
1. 1048
 2. 840
 3. 1148
 4. 940

Question Type : **MCQ**
Question ID : **41652915411**
Option 1 ID : **41652960336**
Option 2 ID : **41652960334**
Option 3 ID : **41652960337**
Option 4 ID : **41652960335**
Status : **Answered**
Chosen Option : 4

Q.2 Which one of the following statements is a tautology ?

- Options
1. $(p \vee q) \wedge (\sim(p \wedge q))$
 2. $(p \wedge q) \vee (\sim(p \vee q))$
 3. $q \vee (\sim(p \wedge q))$
 4. $p \wedge (\sim(p \wedge q))$

Question Type : **MCQ**
Question ID : **41652915427**
Option 1 ID : **41652960400**
Option 2 ID : **41652960399**
Option 3 ID : **41652960401**
Option 4 ID : **41652960398**
Status : **Answered**
Chosen Option : 3

Q.3

If $A^{20} = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$, where $A = \begin{bmatrix} 1 & 1 \\ 0 & 2 \end{bmatrix}$,

then $a + b + c + d$ is equal to :

- Options
1. 2^{21}
 2. 2^{22}
 3. 2^{19}
 4. 2^{20}

Question Type : MCQ

Question ID : 41652915401

Option 1 ID : 41652960296

Option 2 ID : 41652960297

Option 3 ID : 41652960294

Option 4 ID : 41652960295

Status : Answered

Chosen Option : 1

Q.4 The mean deviation about the mean of the data in the following frequency distribution :

x	0	1	2	3
frequency	2	5	4	1

is :

- Options
1. $\frac{5}{6}$
 2. $\frac{13}{18}$
 3. $\frac{4}{3}$
 4. $\frac{5}{9}$

Question Type : MCQ

Question ID : 41652915424

Option 1 ID : 41652960388

Option 2 ID : 41652960387

Option 3 ID : 41652960386

Option 4 ID : 41652960389

Status : Not Answered

Chosen Option : --

Q.5 A plane passes through the points $(\alpha, 1, 0)$, $(\alpha, 2, 1)$, $(-2, 2, -1)$ and $(1, 1, 0)$ for some $\alpha \in \mathbb{R}$. Then the distance of the point $(1, 1, 1)$ from this plane is :

- Options
1. $\frac{2}{\sqrt{11}}$

2. $\frac{5}{\sqrt{11}}$
3. $\frac{1}{\sqrt{22}}$
4. $\frac{3}{\sqrt{22}}$

Question Type : **MCQ**
 Question ID : **41652915420**
 Option 1 ID : **41652960373**
 Option 2 ID : **41652960371**
 Option 3 ID : **41652960370**
 Option 4 ID : **41652960372**
 Status : **Answered**
 Chosen Option : **2**

Q.6 If tangents are drawn from the point (4, 2) to the hyperbola, $16x^2 - 25y^2 = 400$, then the sum of the reciprocals of the slopes of these tangents is :

Options

1. $\frac{5}{2}$
2. $-\frac{2}{5}$
3. $-\frac{4}{5}$
4. $\frac{4}{5}$

Question Type : **MCQ**
 Question ID : **41652915419**
 Option 1 ID : **41652960366**
 Option 2 ID : **41652960367**
 Option 3 ID : **41652960368**
 Option 4 ID : **41652960369**
 Status : **Answered**
 Chosen Option : **3**

Q.7 If $S_n = \sum_{r=1}^n T_r = n(n+1)(n+2)(n+3)$,

then $\sum_{r=1}^{10} \frac{1}{T_r}$ is equal to :

Options

1. $\frac{65}{1056}$
2. $\frac{75}{1056}$
3. $\frac{65}{528}$
4. $\frac{58}{528}$

Question Type : **MCQ**
 Question ID : **41652915406**
 Option 1 ID : **41652960317**
 Option 2 ID : **41652960314**
 Option 3 ID : **41652960316**
 Option 4 ID : **41652960315**
 Status : **Not Answered**
 Chosen Option : --

Q.8 Let $\lambda \in \mathbb{R}$ and

$$f(x) = \begin{cases} |\lambda| [x + 1], & x < -1 \\ -|\lambda|, & x = -1 \\ [\sin(\pi x)] + 2\lambda x, & x > -1 \end{cases}$$

where $[t]$ denotes the greatest integer function. If $f(x)$ is continuous at $x = -1$, then λ is equal to :

- Options
1. 0
 2. -1
 3. $-\frac{1}{3}$
 4. $\frac{1}{3}$

Question Type : **MCQ**
 Question ID : **41652915409**
 Option 1 ID : **41652960328**
 Option 2 ID : **41652960326**
 Option 3 ID : **41652960327**
 Option 4 ID : **41652960329**
 Status : **Answered**
 Chosen Option : 1

Q.9 If A_0, A_1, A_2, A_3, A_4 and A_5 are the vertices of a regular hexagon inscribed in a circle of unit radius, then the product of the lengths of the line segments A_0A_1, A_0A_2 and A_0A_3 is :

- Options
1. $2\sqrt{3}$
 2. $2\sqrt{2}$
 3. $3\sqrt{3}$
 4. 6

Question Type : **MCQ**
 Question ID : **41652915416**
 Option 1 ID : **41652960357**
 Option 2 ID : **41652960354**
 Option 3 ID : **41652960355**
 Option 4 ID : **41652960356**
 Status : **Answered**
 Chosen Option : 1

Q.10

Two towers AB and CD are standing on a horizontal plane with points A and C on the plane. If $AB = 10$ m and the angles of elevation of D from A and B are 60° and 15° respectively, then which of the following (in meters) is not true ?

Options

1. $BD = 5\sqrt{3}$
2. $AD = 5(\sqrt{3} + 1)$
3. $AC = \frac{5}{2}(\sqrt{3} + 1)$
4. $CD = \frac{5}{2}(3 + \sqrt{3})$

Question Type : MCQ

Question ID : 41652915426

Option 1 ID : 41652960396

Option 2 ID : 41652960397

Option 3 ID : 41652960394

Option 4 ID : 41652960395

Status : Answered

Chosen Option : 3

Q.11 The integral

$$\int_{-\frac{1}{2}}^{\frac{1}{2}} (\sin^{-1}(3x - 4x^3) - \cos^{-1}(4x^3 - 3x)) dx$$

is equal to :

Options

1. $\frac{3\pi}{2}$
2. 0
3. $-\frac{\pi}{2}$
4. $\frac{\pi}{2}$

Question Type : MCQ

Question ID : 41652915413

Option 1 ID : 41652960344

Option 2 ID : 41652960342

Option 3 ID : 41652960343

Option 4 ID : 41652960345

Status : Answered

Chosen Option : 2

Q.12

The integral $\int \frac{2}{e^{2x}-1} dx$ is equal to :

(Here C is a constant of integration).

Options

1. $x + \log_e |e^x + e^{-x}| + C$
2. $-x + \log_e |e^x - e^{-x}| + C$
3. $-x + \log_e |e^x + e^{-x}| + C$
4. $x + \log_e |e^x - e^{-x}| + C$

Question Type : **MCQ**Question ID : **41652915412**Option 1 ID : **41652960341**Option 2 ID : **41652960339**Option 3 ID : **41652960340**Option 4 ID : **41652960338**Status : **Answered**Chosen Option : **2**

Q.13 A bag contains 8 white and 6 black balls. A ball is drawn at random from the bag, its colour is observed and kept aside (i.e., not returned in the bag). Three additional balls of the same colour as observed are put in the bag. If now two balls are drawn simultaneously at random from the bag, then the probability that these two balls are of different colours, is :

Options

1. $\frac{7}{25}$
2. $\frac{2}{5}$
3. $\frac{18}{35}$
4. $\frac{4}{15}$

Question Type : **MCQ**Question ID : **41652915422**Option 1 ID : **41652960380**Option 2 ID : **41652960378**Option 3 ID : **41652960381**Option 4 ID : **41652960379**Status : **Answered**Chosen Option : **3**

Q.14 The number of solutions of the equations

$$3x - y - z = 0$$

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

$$-3x + z = 0$$

such that x, y, z are non-negative integers

and $x^2 + y^2 + z^2 \leq 81$ is :

Options

1. **2**

2. 7
3. 3
4. 1

Question Type : **MCQ**
 Question ID : **41652915402**
 Option 1 ID : **41652960301**
 Option 2 ID : **41652960299**
 Option 3 ID : **41652960298**
 Option 4 ID : **41652960300**
 Status : **Answered**
 Chosen Option : 4

Q.15 The area (in sq. units) of the region

$$A = \{(x, y) : 0 \leq y \leq x \leq \sqrt{2-y}\}$$
 is :

Options

1. $\frac{4\sqrt{2}}{3} - \frac{7}{6}$
2. $\frac{2\sqrt{2}}{3} - \frac{1}{6}$
3. $\frac{4\sqrt{2}}{3} + \frac{7}{6}$
4. $\frac{2\sqrt{2}}{3} + \frac{5}{6}$

Question Type : **MCQ**
 Question ID : **41652915414**
 Option 1 ID : **41652960346**
 Option 2 ID : **41652960349**
 Option 3 ID : **41652960347**
 Option 4 ID : **41652960348**
 Status : **Answered**
 Chosen Option : 2

Q.16 Let $S = \{\theta \in (0, 2\pi) : 2 \sin\theta(4 \sin\theta - \sin 3\theta) = 3\}$.

Then $\sum_{\theta \in S} \tan^2 3\theta$ is equal to :

Options

1. 12
2. 4
3. 2
4. 6

Question Type : **MCQ**
 Question ID : **41652915425**
 Option 1 ID : **41652960390**
 Option 2 ID : **41652960392**
 Option 3 ID : **41652960393**
 Option 4 ID : **41652960391**
 Status : **Answered**
 Chosen Option : 1

Q.17

The number of elements in the set,
 $A \cap B \cap C$
 where $A = \{(x, y) \in \mathbb{R} \times \mathbb{R} : |x| + |y| \geq 1\}$
 $B = \{(x, y) \in \mathbb{R} \times \mathbb{R} : x^2 + y^2 \leq 1\}$
 and $C = \{(x, y) \in \mathbb{R} \times \mathbb{R} : \max\{|x|, |y|\} = 1\}$,
 is :

- Options
1. 2
 2. 1
 3. 4
 4. infinitely many

Question Type : **MCQ**
 Question ID : **41652915398**
 Option 1 ID : **41652960283**
 Option 2 ID : **41652960282**
 Option 3 ID : **41652960284**
 Option 4 ID : **41652960285**
 Status : **Answered**
 Chosen Option : **4**

Q.18 A factory has two machines A and B. The machine A produces 60% of the items manufactured while the machine B produces 40% of the items. Further 2% of the items produced by the machine A are defective and 1% of that produced by the machine B are defective. If an item is drawn at random from the manufactured items, then the probability of its being defective is :

- Options
1. 0.052
 2. 0.014
 3. 0.016
 4. 0.160

Question Type : **MCQ**
 Question ID : **41652915423**
 Option 1 ID : **41652960383**
 Option 2 ID : **41652960385**
 Option 3 ID : **41652960384**
 Option 4 ID : **41652960382**
 Status : **Not Answered**
 Chosen Option : **--**

Q.19 If the tangent to the curve, $x^2y + \alpha y^2 = \beta$, ($\alpha, \beta \in \mathbb{R}$) at the point (1, 1) on it is $4x + 3y = 7$, then the normal to it at the point $(x_1, -5)$, $x_1 < 0$ on the curve, is :

- Options
1. $3x + 20y + 106 = 0$

2. $3x + 20y + 103 = 0$
3. $3x + 4y + 26 = 0$
4. $3x + 4y + 23 = 0$

Question Type : **MCQ**
 Question ID : **41652915410**
 Option 1 ID : **41652960333**
 Option 2 ID : **41652960332**
 Option 3 ID : **41652960330**
 Option 4 ID : **41652960331**
 Status : **Answered**
 Chosen Option : **3**

Q.20 An A.P. having an odd number of terms, has its first, second and middle terms as -12 , -7 and 38 respectively, then the sum of this A.P. is :

- Options
1. 798
 2. 756
 3. 710
 4. 896

Question Type : **MCQ**
 Question ID : **41652915405**
 Option 1 ID : **41652960311**
 Option 2 ID : **41652960312**
 Option 3 ID : **41652960313**
 Option 4 ID : **41652960310**
 Status : **Answered**
 Chosen Option : **1**

Q.21 Let (a, b) be the solution of the system

$$[x \ y] \begin{bmatrix} 1 & 3 \\ 5 & 1 \end{bmatrix} = \begin{bmatrix} 2 \\ 1 \end{bmatrix}. \text{ If } \alpha \text{ and } \beta \text{ are the}$$

roots of the equation $ax^2 + 2bx - (a + b) = 0$, then the equation, whose roots are $\alpha\beta$ and

$$\frac{1}{\alpha} + \frac{1}{\beta}, \text{ is :}$$

- Options
1. $12x^2 + 47x + 40 = 0$
 2. $12x^2 - 53x + 56 = 0$
 3. $12x^2 + 17x - 40 = 0$
 4. $9x^2 + 54x + 80 = 0$

Question Type : **MCQ**
 Question ID : **41652915400**
 Option 1 ID : **41652960290**
 Option 2 ID : **41652960292**
 Option 3 ID : **41652960291**
 Option 4 ID : **41652960293**
 Status : **Not Answered**

Chosen Option : --

Q.22

If $\lim_{x \rightarrow 4} \frac{x^{3/4} - 4^{3/4}}{x^{4/3} - 4^{4/3}} = 9p$, then p is equal

to :

Options

1. $(2)^{-9/2}$
2. $(2)^{-31/6}$
3. $(2)^{-11/2}$
4. $(2)^{-29/6}$

Question Type : MCQ

Question ID : 41652915407

Option 1 ID : 41652960321

Option 2 ID : 41652960319

Option 3 ID : 41652960318

Option 4 ID : 41652960320

Status : Not Answered

Chosen Option : --

Q.23

Let $\vec{OA} = \vec{a} = \frac{1}{2}(\hat{i} + \hat{j} - 2\hat{k})$,

$\vec{OC} = \vec{b} = \hat{i} - 2\hat{j} + \hat{k}$ and

$\vec{OB} = 10\vec{a} + 2\vec{b}$. Let p (in sq. units) be the area of the quadrilateral OABC and q (in sq. units) be the area of the parallelogram with \vec{OA} and \vec{OC} as

adjacent sides, then $\frac{p}{q}$ is equal to :

Options

1. 4
2. 8
3. 6
4. 3

Question Type : MCQ

Question ID : 41652915421

Option 1 ID : 41652960375

Option 2 ID : 41652960377

Option 3 ID : 41652960376

Option 4 ID : 41652960374

Status : Not Answered

Chosen Option : --

Q.24

A line is drawn from a point P(-4, 3) to cut the circle, $x^2 + y^2 = 4$ at the points A and B. Then PA·PB is equal to :

- Options
1. 21
 2. 29
 3. 27
 4. 17

Question Type : **MCQ**
 Question ID : **41652915417**
 Option 1 ID : **41652960360**
 Option 2 ID : **41652960358**
 Option 3 ID : **41652960359**
 Option 4 ID : **41652960361**
 Status : **Not Answered**
 Chosen Option : --

Q.25

Let $u = \frac{-1 + i\sqrt{3}}{2}$ and $z = u - u^2 - 2$. Then
 the value of $z^4 + 3z^3 + 2z^2 - 11z - 6$ is :

- Options
1. -1
 2. 1
 3. -2
 4. 2

Question Type : **MCQ**
 Question ID : **41652915399**
 Option 1 ID : **41652960287**
 Option 2 ID : **41652960286**
 Option 3 ID : **41652960289**
 Option 4 ID : **41652960288**
 Status : **Answered**
 Chosen Option : 2

Q.26

The coefficient of x^5 in the expansion of

$$(1-x) \left(\frac{x^3 - 6}{2x^2} \right)^{10} \text{ is :}$$

- Options
1. $\frac{405}{256}$
 2. 405
 3. $-\frac{405}{256}$
 4. $-\frac{1405}{256}$

Question Type : **MCQ**
 Question ID : **41652915404**
 Option 1 ID : **41652960307**
 Option 2 ID : **41652960306**
 Option 3 ID : **41652960309**
 Option 4 ID : **41652960308**
 Status : **Answered**
 Chosen Option : 3

Q.27

The normal to the ellipse $\frac{x^2}{16} + \frac{y^2}{36} = 1$ at

a point P on the ellipse has slope $\frac{2}{3}$. If this normal intersects the major axis of the ellipse at a point A, then $(PA)^2$ is equal to :

- Options
1. $\frac{88}{9}$
 2. $\frac{32}{3}$
 3. $\frac{104}{9}$
 4. $\frac{136}{9}$

Question Type : MCQ

Question ID : 41652915418

Option 1 ID : 41652960364

Option 2 ID : 41652960365

Option 3 ID : 41652960362

Option 4 ID : 41652960363

Status : Not Answered

Chosen Option : --

Q.28 Let $f : \mathbf{R} \rightarrow \mathbf{R}$ be a differentiable function such that $f(u+v) = f(u) + 2v^2 + 4uv$ for all $u, v \in \mathbf{R}$. If $f(1) = 3$, then the equation of the normal to the curve $y = f(x)$ at the point

$\left(\frac{1}{2}, f\left(\frac{1}{2}\right)\right)$ is :

- Options
1. $3x + y = 3$
 2. $3x - y = 0$
 3. $2x - 4y = -5$
 4. $2x + 4y = 7$

Question Type : MCQ

Question ID : 41652915408

Option 1 ID : 41652960322

Option 2 ID : 41652960325

Option 3 ID : 41652960323

Option 4 ID : 41652960324

Status : Not Answered

Chosen Option : --

Q.29 Let $y = y(x)$ be the solution of the differential equation $e^y dy = (1 + x + e^y + xe^y) dx$ and $y(1) = 0$. Then $y(-3)$ is equal to :

- Options
1. $\log_e(2)$

2. $\log_e(2) - \frac{3}{2}$

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

4. 0

Question Type : MCQ

Question ID : 41652915415

Option 1 ID : 41652960352

Option 2 ID : 41652960353

Option 3 ID : 41652960351

Option 4 ID : 41652960350

Status : Not Answered

Chosen Option : --

Q.30

The number of subsets of $\{1, 2, \dots, 99\}$ containing at least 50 elements is :

Options

1. $2^{99} - 2^{49}$

2. 2^{97}

3. $2^{99} - 2^{50}$

4. 2^{98}

Question Type : MCQ

Question ID : 41652915403

Option 1 ID : 41652960303

Option 2 ID : 41652960304

Option 3 ID : 41652960302

Option 4 ID : 41652960305

Status : Answered

Chosen Option : 1

Section : Aptitude Test

Comprehension:

SubQuestion No : 1

Q.1 The famous Sun Temple is located in which of the following State ?

Options

1. Odisha

2. Chattisgarh

3. Jharkhand

4. Bihar

Question Type : MCQ

Question ID : 41652915430

Option 1 ID : 41652960407

Option 2 ID : 41652960409

Option 3 ID : 41652960408

Option 4 ID : 41652960406

Status : Answered

Chosen Option : 1

Comprehension:

SubQuestion No : 2

Q.2 Which one of the following was usually constructed in a chaitya in a Buddhist Monastery ?

- Options
1. Stupa
 2. Linga
 3. Cross
 4. Nandi

Question Type : MCQ
Question ID : 41652915429
Option 1 ID : 41652960404
Option 2 ID : 41652960402
Option 3 ID : 41652960405
Option 4 ID : 41652960403
Status : Answered
Chosen Option : 1

Comprehension:

SubQuestion No : 3

Q.3 A gondola is a boat found mainly in the canals of which one of the following cities ?

- Options
1. Paris
 2. London
 3. Venice
 4. Frankfurt

Question Type : MCQ
Question ID : 41652915438
Option 1 ID : 41652960439
Option 2 ID : 41652960438
Option 3 ID : 41652960440
Option 4 ID : 41652960441
Status : Answered
Chosen Option : 3

Comprehension:

SubQuestion No : 4

Q.4 Where amongst the following are the famous rock cut caves found in India ?

- Options
1. Allahabad
 2. Bhopal
 3. Bijnor
 4. Ellora

Question Type : MCQ
Question ID : 41652915432

Option 1 ID : **41652960415**
Option 2 ID : **41652960414**
Option 3 ID : **41652960417**
Option 4 ID : **41652960416**
Status : **Answered**
Chosen Option : **4**

Comprehension:

SubQuestion No : 5

Q.5 Which of the following colors is made when red and yellow colors are mixed ?

- Options
1. Orange
 2. Green
 3. Black
 4. Purple

Question Type : **MCQ**
Question ID : **41652915442**
Option 1 ID : **41652960456**
Option 2 ID : **41652960454**
Option 3 ID : **41652960457**
Option 4 ID : **41652960455**
Status : **Answered**
Chosen Option : **1**

Comprehension:

SubQuestion No : 6

Q.6 The texture of a baby's skin is which one of the following ?

- Options
1. Rough
 2. Corrugated
 3. Bumpy
 4. Smooth

Question Type : **MCQ**
Question ID : **41652915437**
Option 1 ID : **41652960434**
Option 2 ID : **41652960436**
Option 3 ID : **41652960437**
Option 4 ID : **41652960435**
Status : **Answered**
Chosen Option : **4**

Comprehension:

SubQuestion No : 7

Q.7 Which among the following is the tallest building in Kolkata ?

- Options
1. The 45
 2. The 46

3. The 42

4. The 48

Question Type : **MCQ**
Question ID : **41652915435**
Option 1 ID : **41652960428**
Option 2 ID : **41652960429**
Option 3 ID : **41652960427**
Option 4 ID : **41652960426**
Status : **Marked For Review**
Chosen Option : **4**

Comprehension:

SubQuestion No : 8

Q.8 Who amongst the following designed the Madhya Pradesh Assembly building ?

- Options
1. Charles Correa
 2. B.V. Doshi
 3. Raj Rewal
 4. Prem Nath

Question Type : **MCQ**
Question ID : **41652915434**
Option 1 ID : **41652960424**
Option 2 ID : **41652960422**
Option 3 ID : **41652960423**
Option 4 ID : **41652960425**
Status : **Marked For Review**
Chosen Option : **1**

Comprehension:

SubQuestion No : 9

Q.9 The horizontal part of a staircase is known as which of the following ?

- Options
1. Rail
 2. Tread
 3. Riser
 4. Baluster

Question Type : **MCQ**
Question ID : **41652915431**
Option 1 ID : **41652960412**
Option 2 ID : **41652960411**
Option 3 ID : **41652960410**
Option 4 ID : **41652960413**
Status : **Answered**
Chosen Option : **2**

Comprehension:

SubQuestion No : 10

Q.10 In the Indian product market Ebco is known for the manufacture of which one of the following ?

- Options
1. Glass
 2. Tiles
 3. Architectural hardware
 4. Plywood

Question Type : **MCQ**
Question ID : **41652915440**
Option 1 ID : **41652960447**
Option 2 ID : **41652960449**
Option 3 ID : **41652960448**
Option 4 ID : **41652960446**
Status : **Answered**
Chosen Option : **3**

Comprehension:

SubQuestion No : 11

Q.11 What is the thickness of a normal one brick thick wall ?

- Options
1. 330 mm
 2. 230 mm
 3. 400 mm
 4. 300 mm

Question Type : **MCQ**
Question ID : **41652915441**
Option 1 ID : **41652960451**
Option 2 ID : **41652960452**
Option 3 ID : **41652960453**
Option 4 ID : **41652960450**
Status : **Answered**
Chosen Option : **2**

Comprehension:

SubQuestion No : 12

Q.12 Which one of the following colors is considered to be the happiest of colors ?

- Options
1. Blue
 2. Black
 3. Yellow
 4. Red

Question Type : **MCQ**
Question ID : **41652915433**
Option 1 ID : **41652960418**
Option 2 ID : **41652960419**
Option 3 ID : **41652960420**
Option 4 ID : **41652960421**

Status : **Answered**
Chosen Option : **3**

Comprehension:

SubQuestion No : 13

Q.13 A gutter with a sloping roof is meant for which of the following ?

- Options
1. Draining rain water
 2. Decoration
 3. Holding the roof
 4. Protecting windows

Question Type : **MCQ**
Question ID : **41652915443**
Option 1 ID : **41652960459**
Option 2 ID : **41652960460**
Option 3 ID : **41652960458**
Option 4 ID : **41652960461**
Status : **Answered**
Chosen Option : **1**

Comprehension:

SubQuestion No : 14

Q.14 The best shadow less light is found from which of the following direction ?

- Options
1. South
 2. North
 3. West
 4. East

Question Type : **MCQ**
Question ID : **41652915439**
Option 1 ID : **41652960443**
Option 2 ID : **41652960442**
Option 3 ID : **41652960445**
Option 4 ID : **41652960444**
Status : **Answered**
Chosen Option : **2**

Comprehension:

SubQuestion No : 15

Q.15 The Capitol Complex of Chandigarh is designed by which one of the following architect ?

- Options
1. Charles Correa
 2. B.V. Doshi
 3. Le Corbusier
 4. Raj Rewal

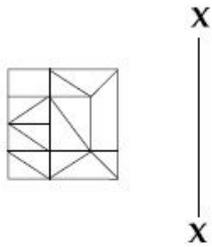
Question Type : **MCQ**
 Question ID : **41652915436**
 Option 1 ID : **41652960431**
 Option 2 ID : **41652960433**
 Option 3 ID : **41652960432**
 Option 4 ID : **41652960430**
 Status : **Answered**
 Chosen Option : **3**

Comprehension:

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

SubQuestion No : 16

Q.16



Options

- 1.
- 2.
- 3.
- 4.

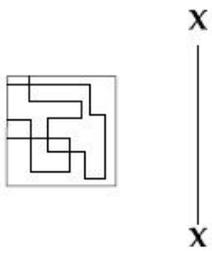
Question Type : **MCQ**
 Question ID : **41652915445**
 Option 1 ID : **41652960462**
 Option 2 ID : **41652960464**
 Option 3 ID : **41652960463**
 Option 4 ID : **41652960465**
 Status : **Answered**
 Chosen Option : **4**

Comprehension:

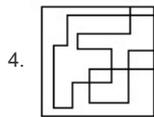
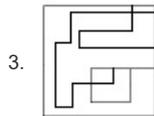
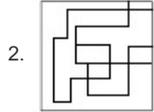
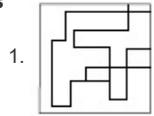
Directions : Which one of the answer figures is the correct mirror image of the problem figure with respect to X - X ?

SubQuestion No : 17

Q.17



Options



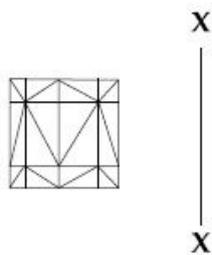
Question Type : **MCQ**
Question ID : **41652915448**
Option 1 ID : **41652960474**
Option 2 ID : **41652960475**
Option 3 ID : **41652960476**
Option 4 ID : **41652960477**
Status : **Answered**
Chosen Option : **4**

Comprehension:

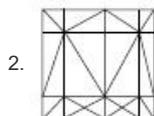
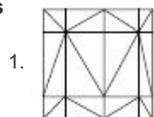
Directions : Which one of the answer figures is the correct mirror image of the problem figure with respect to X - X ?

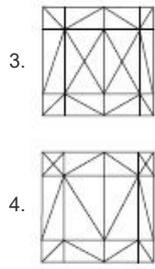
SubQuestion No : 18

Q.18



Options





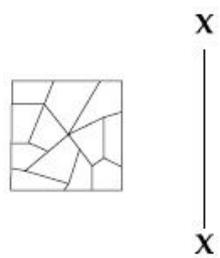
Question Type : **MCQ**
 Question ID : **41652915446**
 Option 1 ID : **41652960467**
 Option 2 ID : **41652960469**
 Option 3 ID : **41652960466**
 Option 4 ID : **41652960468**
 Status : **Answered**
 Chosen Option : **1**

Comprehension:

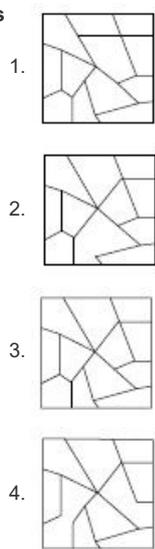
Directions : Which one of the answer figures is the correct mirror image of the problem figure with respect to X - X ?

SubQuestion No : 19

Q.19



Options



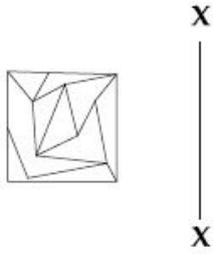
Question Type : **MCQ**
 Question ID : **41652915449**
 Option 1 ID : **41652960478**
 Option 2 ID : **41652960480**
 Option 3 ID : **41652960479**
 Option 4 ID : **41652960481**
 Status : **Answered**
 Chosen Option : **3**

Comprehension:

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

SubQuestion No : 20

Q.20



Options

- 1.
- 2.
- 3.
- 4.

Question Type : **MCQ**
Question ID : **41652915447**
Option 1 ID : **41652960473**
Option 2 ID : **41652960472**
Option 3 ID : **41652960470**
Option 4 ID : **41652960471**
Status : **Answered**
Chosen Option : **1**

Comprehension:

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

SubQuestion No : 21

Q.21



Options

- 1.
- 2.
- 3.
- 4.

Question Type : **MCQ**
Question ID : **41652915455**

Option 1 ID : **41652960500**
 Option 2 ID : **41652960501**
 Option 3 ID : **41652960499**
 Option 4 ID : **41652960498**
 Status : **Answered**
 Chosen Option : **1**

Comprehension:

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

SubQuestion No : 22

Q.22



Options

- 1.
- 2.
- 3.
- 4.

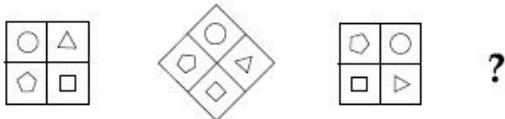
Question Type : **MCQ**
 Question ID : **41652915454**
 Option 1 ID : **41652960496**
 Option 2 ID : **41652960497**
 Option 3 ID : **41652960494**
 Option 4 ID : **41652960495**
 Status : **Answered**
 Chosen Option : **1**

Comprehension:

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

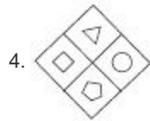
SubQuestion No : 23

Q.23



Options

- 1.
- 2.
- 3.



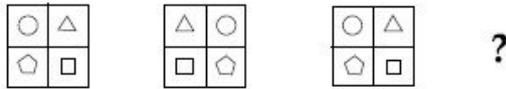
Question Type : **MCQ**
 Question ID : **41652915451**
 Option 1 ID : **41652960485**
 Option 2 ID : **41652960484**
 Option 3 ID : **41652960482**
 Option 4 ID : **41652960483**
 Status : **Answered**
 Chosen Option : **2**

Comprehension:

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

SubQuestion No : 24

Q.24



Options

- 1.
- 2.
- 3.
- 4.

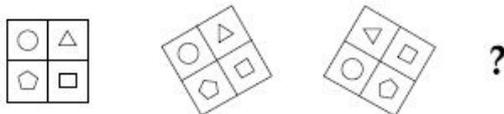
Question Type : **MCQ**
 Question ID : **41652915453**
 Option 1 ID : **41652960493**
 Option 2 ID : **41652960492**
 Option 3 ID : **41652960490**
 Option 4 ID : **41652960491**
 Status : **Answered**
 Chosen Option : **2**

Comprehension:

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

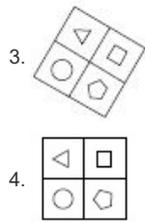
SubQuestion No : 25

Q.25



Options

- 1.
- 2.



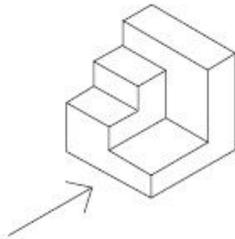
Question Type : **MCQ**
 Question ID : **41652915452**
 Option 1 ID : **41652960489**
 Option 2 ID : **41652960487**
 Option 3 ID : **41652960488**
 Option 4 ID : **41652960486**
 Status : **Answered**
 Chosen Option : **4**

Comprehension:

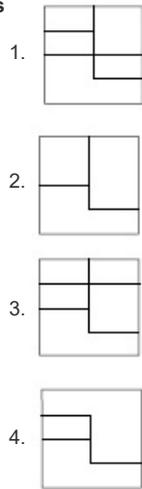
Directions : The 3D figure shows the view of an object. Identify the correct front view in the direction of the arrow, from amongst the answer figures.

SubQuestion No : 26

Q.26



Options



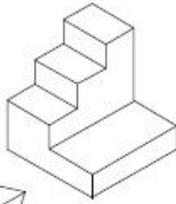
Question Type : **MCQ**
 Question ID : **41652915459**
 Option 1 ID : **41652960510**
 Option 2 ID : **41652960513**
 Option 3 ID : **41652960512**
 Option 4 ID : **41652960511**
 Status : **Answered**
 Chosen Option : **4**

Comprehension:

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

SubQuestion No : 27

Q.27



Options

- 1.
- 2.
- 3.
- 4.

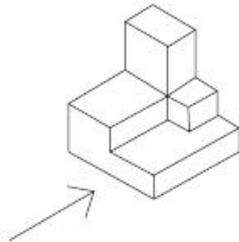
Question Type : **MCQ**
Question ID : **41652915457**
Option 1 ID : **41652960505**
Option 2 ID : **41652960504**
Option 3 ID : **41652960502**
Option 4 ID : **41652960503**
Status : **Answered**
Chosen Option : **3**

Comprehension:

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

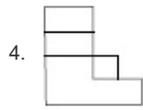
SubQuestion No : 28

Q.28



Options

- 1.
- 2.
- 3.



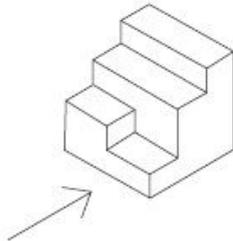
Question Type : **MCQ**
 Question ID : **41652915458**
 Option 1 ID : **41652960508**
 Option 2 ID : **41652960507**
 Option 3 ID : **41652960509**
 Option 4 ID : **41652960506**
 Status : **Answered**
 Chosen Option : **2**

Comprehension:

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

SubQuestion No : 29

Q.29



Options

- 1.
- 2.
- 3.
- 4.

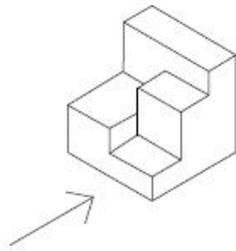
Question Type : **MCQ**
 Question ID : **41652915460**
 Option 1 ID : **41652960517**
 Option 2 ID : **41652960516**
 Option 3 ID : **41652960514**
 Option 4 ID : **41652960515**
 Status : **Answered**
 Chosen Option : **2**

Comprehension:

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

SubQuestion No : 30

Q.30



Options

- 1.
- 2.
- 3.
- 4.

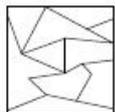
Question Type : **MCQ**
 Question ID : **41652915461**
 Option 1 ID : **41652960521**
 Option 2 ID : **41652960519**
 Option 3 ID : **41652960520**
 Option 4 ID : **41652960518**
 Status : **Answered**
 Chosen Option : **1**

Comprehension:

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

SubQuestion No : 31

Q.31



Options

- 1.
- 2.
- 3.
- 4.

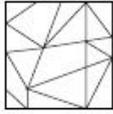
Question Type : **MCQ**
 Question ID : **41652915464**
 Option 1 ID : **41652960529**
 Option 2 ID : **41652960527**
 Option 3 ID : **41652960528**
 Option 4 ID : **41652960526**
 Status : **Answered**
 Chosen Option : **2**

Comprehension:

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

SubQuestion No : 32

Q.32



Options

- 1.
- 2.
- 3.
- 4.

Question Type : **MCQ**
Question ID : **41652915463**
Option 1 ID : **41652960522**
Option 2 ID : **41652960524**
Option 3 ID : **41652960525**
Option 4 ID : **41652960523**
Status : **Answered**
Chosen Option : **1**

Comprehension:

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

SubQuestion No : 33

Q.33



Options

- 1.
- 2.
- 3.
- 4.

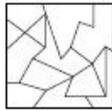
Question Type : **MCQ**
Question ID : **41652915467**
Option 1 ID : **41652960538**
Option 2 ID : **41652960539**
Option 3 ID : **41652960541**
Option 4 ID : **41652960540**
Status : **Answered**
Chosen Option : **3**

Comprehension:

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

SubQuestion No : 34

Q.34



Options

- 1.
- 2.
- 3.
- 4.

Question Type : **MCQ**
Question ID : **41652915466**
Option 1 ID : **41652960534**
Option 2 ID : **41652960537**
Option 3 ID : **41652960535**
Option 4 ID : **41652960536**
Status : **Answered**
Chosen Option : **1**

Comprehension:

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

SubQuestion No : 35

Q.35



Options

- 1.
- 2.
- 3.
- 4.

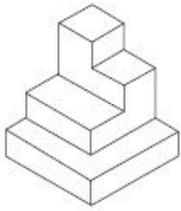
Question Type : **MCQ**
Question ID : **41652915465**
Option 1 ID : **41652960533**
Option 2 ID : **41652960531**
Option 3 ID : **41652960530**
Option 4 ID : **41652960532**
Status : **Answered**
Chosen Option : **3**

Comprehension:

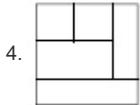
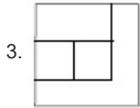
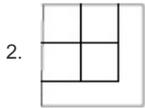
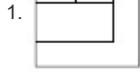
Directions : The 3D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

SubQuestion No : 36

Q.36



Options



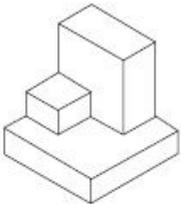
Question Type : **MCQ**
Question ID : **41652915469**
Option 1 ID : **41652960543**
Option 2 ID : **41652960542**
Option 3 ID : **41652960544**
Option 4 ID : **41652960545**
Status : **Answered**
Chosen Option : **1**

Comprehension:

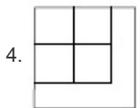
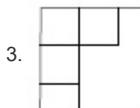
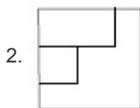
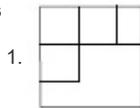
Directions : The 3D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

SubQuestion No : 37

Q.37



Options

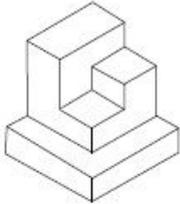


Question Type : **MCQ**Question ID : **41652915470**Option 1 ID : **41652960547**Option 2 ID : **41652960549**Option 3 ID : **41652960548**Option 4 ID : **41652960546**Status : **Answered**Chosen Option : **2****Comprehension:**

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

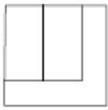
SubQuestion No : **38**

Q.38

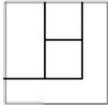


Options

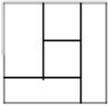
1.



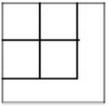
2.



3.



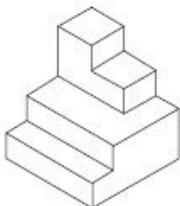
4.

Question Type : **MCQ**Question ID : **41652915473**Option 1 ID : **41652960561**Option 2 ID : **41652960560**Option 3 ID : **41652960559**Option 4 ID : **41652960558**Status : **Answered**Chosen Option : **2****Comprehension:**

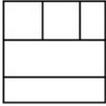
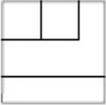
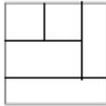
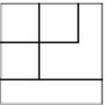
Directions : The 3D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

SubQuestion No : **39**

Q.39



Options

- 1. 
- 2. 
- 3. 
- 4. 

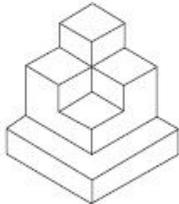
Question Type : **MCQ**
 Question ID : **41652915472**
 Option 1 ID : **41652960557**
 Option 2 ID : **41652960555**
 Option 3 ID : **41652960554**
 Option 4 ID : **41652960556**
 Status : **Answered**
 Chosen Option : **2**

Comprehension:

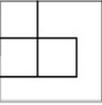
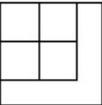
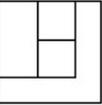
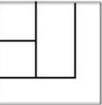
Directions : The 3D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

SubQuestion No : 40

Q.40



Options

- 1. 
- 2. 
- 3. 
- 4. 

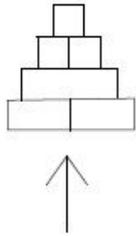
Question Type : **MCQ**
 Question ID : **41652915471**
 Option 1 ID : **41652960553**
 Option 2 ID : **41652960550**
 Option 3 ID : **41652960552**
 Option 4 ID : **41652960551**
 Status : **Answered**
 Chosen Option : **2**

Comprehension:

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

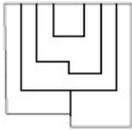
SubQuestion No : 41

Q.41

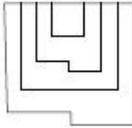


Options

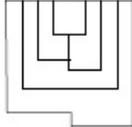
1.



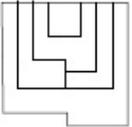
2.



3.



4.



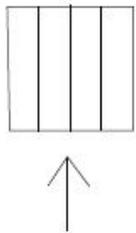
Question Type : **MCQ**
Question ID : **41652915478**
Option 1 ID : **41652960577**
Option 2 ID : **41652960576**
Option 3 ID : **41652960574**
Option 4 ID : **41652960575**
Status : **Answered**
Chosen Option : **2**

Comprehension:

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

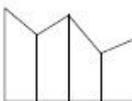
SubQuestion No : 42

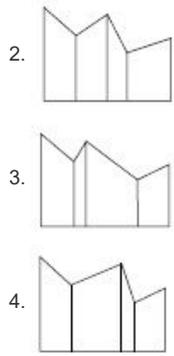
Q.42



Options

1.





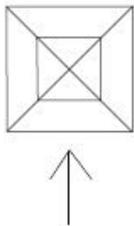
Question Type : **MCQ**
 Question ID : **41652915477**
 Option 1 ID : **41652960570**
 Option 2 ID : **41652960573**
 Option 3 ID : **41652960572**
 Option 4 ID : **41652960571**
 Status : **Answered**
 Chosen Option : **1**

Comprehension:

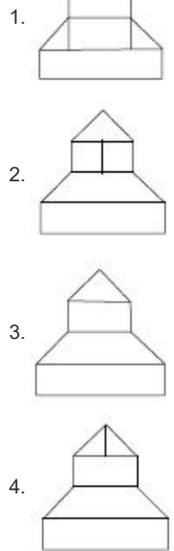
Directions : The problem figure shows the top view of an object. Identify the correct elevation from amongst the answer figures looking in the direction of the arrow.

SubQuestion No : 43

Q.43



Options



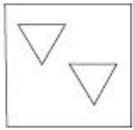
Question Type : **MCQ**
 Question ID : **41652915476**
 Option 1 ID : **41652960567**
 Option 2 ID : **41652960569**
 Option 3 ID : **41652960568**
 Option 4 ID : **41652960566**
 Status : **Answered**
 Chosen Option : **3**

Comprehension:

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

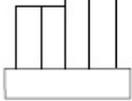
SubQuestion No : 44

Q.44

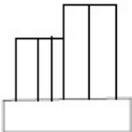


Options

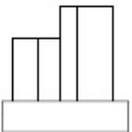
1.



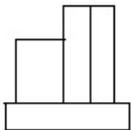
2.



3.



4.



Question Type : **MCQ**

Question ID : **41652915479**

Option 1 ID : **41652960581**

Option 2 ID : **41652960580**

Option 3 ID : **41652960578**

Option 4 ID : **41652960579**

Status : **Answered**

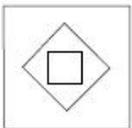
Chosen Option : **1**

Comprehension:

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

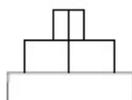
SubQuestion No : 45

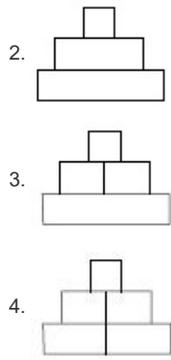
Q.45



Options

1.





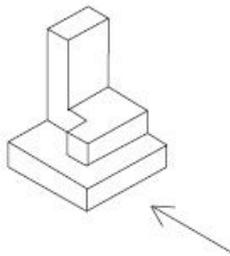
Question Type : **MCQ**
 Question ID : **41652915475**
 Option 1 ID : **41652960565**
 Option 2 ID : **41652960563**
 Option 3 ID : **41652960562**
 Option 4 ID : **41652960564**
 Status : **Answered**
 Chosen Option : **3**

Comprehension:

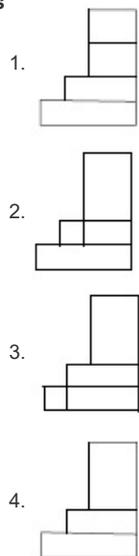
Directions : The 3D figure shows the view of an object. Identify the correct side view in the direction of the arrow, from amongst the answer figures.

SubQuestion No : 46

Q.46



Options



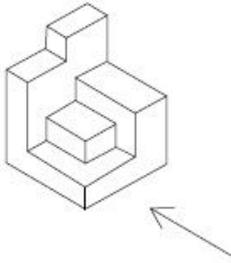
Question Type : **MCQ**
 Question ID : **41652915482**
 Option 1 ID : **41652960588**
 Option 2 ID : **41652960586**
 Option 3 ID : **41652960587**
 Option 4 ID : **41652960589**
 Status : **Answered**
 Chosen Option : **4**

Comprehension:

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

SubQuestion No : 47

Q.47



Options

- 1.
- 2.
- 3.
- 4.

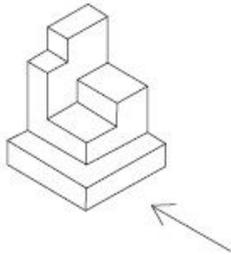
Question Type : **MCQ**
Question ID : **41652915484**
Option 1 ID : **41652960597**
Option 2 ID : **41652960595**
Option 3 ID : **41652960596**
Option 4 ID : **41652960594**
Status : **Answered**
Chosen Option : **1**

Comprehension:

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

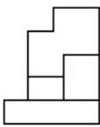
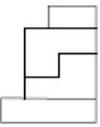
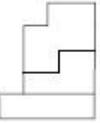
SubQuestion No : 48

Q.48



Options

- 1.

- 2. 
- 3. 
- 4. 

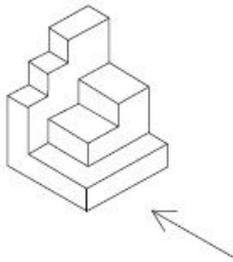
Question Type : **MCQ**
 Question ID : **41652915481**
 Option 1 ID : **41652960583**
 Option 2 ID : **41652960585**
 Option 3 ID : **41652960582**
 Option 4 ID : **41652960584**
 Status : **Answered**
 Chosen Option : **4**

Comprehension:

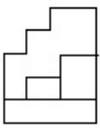
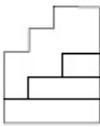
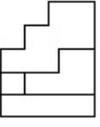
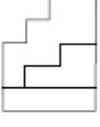
Directions : The 3D figure shows the view of an object. Identify the correct side view in the direction of the arrow, from amongst the answer figures.

SubQuestion No : 49

Q.49



Options

- 1. 
- 2. 
- 3. 
- 4. 

Question Type : **MCQ**
 Question ID : **41652915485**
 Option 1 ID : **41652960598**
 Option 2 ID : **41652960600**
 Option 3 ID : **41652960601**
 Option 4 ID : **41652960599**
 Status : **Answered**

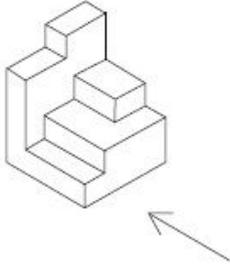
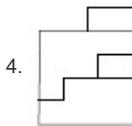
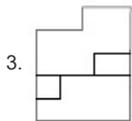
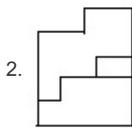
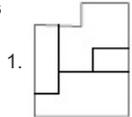
Chosen Option : 4

Comprehension:

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

SubQuestion No : 50

Q.50

**Options**Question Type : **MCQ**Question ID : **41652915483**Option 1 ID : **41652960592**Option 2 ID : **41652960590**Option 3 ID : **41652960591**Option 4 ID : **41652960593**Status : **Answered**Chosen Option : **2**

Section : Drawing

Q. 1 In the space provided in the answer sheet for this question, draw margin lines to form a frame. In this frame create an aesthetic composition using only cylinders and cubes. These can be of any size and may be placed separate, overlapping or within each other. The idea is to produce an aesthetic and visually exciting composition of these shapes in the frame without making it represent any realistic form like house face etc. These shapes and the other spaces should be filled with some colors of your choice so that the visual quality of the composition is enhanced. **20 marks**

Question Type : **SUBJECTIVE**Question ID : **41652915486**Status : **Answered**

- Q.
2 Copy the graphic image shown in the space provided for the answer of this question. Credit will be given to the exactness of your answer. **20 marks**



Question Type : **SUBJECTIVE**

Question ID : **41652915487**

Status : **Answered**

- Q.
3 In the space provided for the answer of this question attempt any ONE of the following : **30 marks**

Design and draw an appropriate pattern for a bed cover for a girls room. Color or shade it to enhance its visual quality.

OR

Draw an imaginary picture of a restaurant.

OR

Draw from imagination a picture of an Indian leader.

Question Type : **SUBJECTIVE**

Question ID : **41652915488**

Status : **Answered**