

## JEE April 2019

Roll No.	
Candidate Name	
Application No	
Test Date	07/04/2019
Test Time	9:30 AM - 12:30 PM
Subject	Paper II EH

Section : **Mathematics**

**Q.1**  
 If the two lines  $\frac{x - 2m}{2m + 5} = \frac{y}{8m} = \frac{z - 4}{2}$   
 and  $\frac{x - 2}{m - 2} = \frac{y}{-1} = \frac{z - 2m}{1 - 3m}$  are parallel  
 for some  $m \in \mathbf{R}$ , then the distance between  
 them is :

- Options
1.  $\sqrt{34}$
  2.  $\sqrt{10}$
  3.  $2\sqrt{5}$
  4.  $\sqrt{29}$

Question Type : **MCQ**  
 Question ID : **41652915603**  
 Option 1 ID : **41652961017**  
 Option 2 ID : **41652961014**  
 Option 3 ID : **41652961015**  
 Option 4 ID : **41652961016**  
 Status : **Answered**  
 Chosen Option : **3**

**Q.2**  
 $\lim_{x \rightarrow 3} \frac{\sqrt{x + 6} - \sin(x - 3) - 3}{(x - 3)\cos(x - 3)}$  is equal  
 to :

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

Question Type : **MCQ**  
 Question ID : **41652915589**

Option 1 ID : 41652960960  
 Option 2 ID : 41652960958  
 Option 3 ID : 41652960959  
 Option 4 ID : 41652960961  
 Status : Answered  
 Chosen Option : 2

**Q.3** If  $6 \cos^2\theta - 2 \cos 2\theta - 3 = 0$ , then  $\tan^2 3\theta$  is equal to :

- Options
1.  $\frac{1}{3}$
  2.  $\frac{9}{2}$
  3. 1
  4. 3

Question Type : MCQ  
 Question ID : 41652915607  
 Option 1 ID : 41652961030  
 Option 2 ID : 41652961033  
 Option 3 ID : 41652961031  
 Option 4 ID : 41652961032  
 Status : Answered  
 Chosen Option : 2

**Q.4** Let  $f : \mathbb{R} - \{0\} \rightarrow \mathbb{R}$  be defined by  $f(x) = a \log_e |x| + bx^3 + x^2$ . If  $x = -1$  and  $x = 1$  are the critical points of  $f(x)$ , then :

- Options
1.  $f''(1) - f''(-1) = 4$
  2. both  $x = 1$  and  $x = -1$  are local minima of  $f(x)$
  3.  $f''(1) + f''(-1) = 0$
  4.  $x = 1$  is a local minima and  $x = -1$  is a local maxima of  $f(x)$

Question Type : MCQ  
 Question ID : 41652915592  
 Option 1 ID : 41652960971  
 Option 2 ID : 41652960972  
 Option 3 ID : 41652960970  
 Option 4 ID : 41652960973  
 Status : Answered  
 Chosen Option : 2

**Q.5** If  $r$  is the remainder obtained on dividing  $(98)^5$  by 12, then the coefficient of  $x^3$  in the Binomial expansion of  $\left(1 + \frac{x}{2}\right)^{2r}$  is :

- Options
1. 102
  2.  $\frac{55}{2}$
  3. 70
  4.  $\frac{91}{2}$

Question Type : **MCQ**  
 Question ID : **41652915586**  
 Option 1 ID : **41652960948**  
 Option 2 ID : **41652960946**  
 Option 3 ID : **41652960949**  
 Option 4 ID : **41652960947**  
 Status : **Answered**  
 Chosen Option : 2

**Q.6** The expression  $\sim(p \leftrightarrow q)$  is equivalent to :

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

Question Type : **MCQ**  
 Question ID : **41652915609**  
 Option 1 ID : **41652961040**  
 Option 2 ID : **41652961041**  
 Option 3 ID : **41652961039**  
 Option 4 ID : **41652961038**  
 Status : **Answered**  
 Chosen Option : 2

**Q.7** The value of  $\int_{-3}^3 \frac{5x^4}{1 + e^{-x}} dx$  is :

- Options
1.  $\frac{3^5}{5}$
  2.  $2(3^5)$
  3.  $3^4$

4.  $3^5$ Question Type : **MCQ**Question ID : **41652915595**Option 1 ID : **41652960984**Option 2 ID : **41652960982**Option 3 ID : **41652960985**Option 4 ID : **41652960983**Status : **Answered**Chosen Option : **2**

Q.8

Let P be the point on the parabola  $y^2 = 3x$  such that OP makes an angle of  $\frac{\pi}{6}$  with the x-axis, where O is the origin. A normal is drawn to the parabola at P intersecting the axis of the parabola at Q. If S is the focus of the parabola, then SQ is equal to :

Options 1. 9

2.  $\frac{39}{4}$ 3.  $\frac{41}{4}$ 4.  $\frac{39}{2}$ Question Type : **MCQ**Question ID : **41652915600**Option 1 ID : **41652961004**Option 2 ID : **41652961003**Option 3 ID : **41652961005**Option 4 ID : **41652961002**Status : **Answered**Chosen Option : **2**

Q.9

If for two events A and B, in a random experiment,  $P(A|B) = \frac{4}{5}$  and  $P(B|A) = \frac{1}{4}$ , then  $P(A|A \cup B)$  is equal to :

Options 1.  $\frac{5}{17}$ 2.  $\frac{11}{16}$ 3.  $\frac{16}{17}$

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

Question Type : **MCQ**  
 Question ID : **41652915606**  
 Option 1 ID : **41652961027**  
 Option 2 ID : **41652961029**  
 Option 3 ID : **41652961028**  
 Option 4 ID : **41652961026**  
 Status : **Answered**  
 Chosen Option : **2**

**Q.10** Let A be the set of all 3-digit natural numbers and  $B = \{x \in A : \text{H.C.F.}(x, 15) = 1\}$ . Then the number of elements in B is :

- Options
1. 240
  2. 360
  3. 480
  4. 420

Question Type : **MCQ**  
 Question ID : **41652915585**  
 Option 1 ID : **41652960945**  
 Option 2 ID : **41652960943**  
 Option 3 ID : **41652960944**  
 Option 4 ID : **41652960942**  
 Status : **Answered**  
 Chosen Option : **2**

**Q.11** Let  $f : [0, 5] \rightarrow \mathbb{R}$  be a continuous function such that  $|f(x)| \leq 3$  for all  $x \in [0, 5]$  and  $\int_0^5 f(t) dt = 3$ . Then the value of  $\int_0^3 f(t) dt$  can be :

- Options
1. 10
  2. -4
  3. 12
  4. 6

Question Type : **MCQ**  
 Question ID : **41652915593**  
 Option 1 ID : **41652960976**  
 Option 2 ID : **41652960974**  
 Option 3 ID : **41652960977**  
 Option 4 ID : **41652960975**

Status : **Answered**  
Chosen Option : **2**

**Q.12** Let R be a relation defined on  $Z \times Z$  by  $(a, b) R (c, d) \Leftrightarrow a - d = b - c$ , where Z is the set of all integers, then R is :

- Options**
1. transitive but neither reflexive nor symmetric.
  2. symmetric and transitive but not reflexive.
  3. symmetric but neither reflexive nor transitive.
  4. reflexive but neither symmetric nor transitive.

Question Type : **MCQ**  
Question ID : **41652915580**  
Option 1 ID : **41652960924**  
Option 2 ID : **41652960925**  
Option 3 ID : **41652960923**  
Option 4 ID : **41652960922**  
Status : **Answered**  
Chosen Option : **3**

**Q.13** If a, b and c (all distinct) are the sides of a triangle ABC opposite to the angles A, B and C, respectively, then  $\frac{c \sin(A - B)}{a^2 - b^2} - \frac{b \sin(C - A)}{c^2 - a^2}$  is equal to :

- Options**
1. 0
  2. 2
  3. -1
  4. 1

Question Type : **MCQ**  
Question ID : **41652915608**  
Option 1 ID : **41652961034**  
Option 2 ID : **41652961036**  
Option 3 ID : **41652961037**  
Option 4 ID : **41652961035**  
Status : **Answered**  
Chosen Option : **2**

**Q.14** The set of all real values of  $\alpha$  for which the equation,  $|x+2| \cdot |x-2| = \alpha^2 - 2\alpha$  has real solutions for  $x$ , is :

Options

1.  $[1 - \sqrt{5}, 0] \cup [2, 1 + \sqrt{5}]$
2.  $(-\infty, 0] \cup [2, 1 + \sqrt{5}]$
3.  $(-\infty, 0] \cup [2, \infty)$
4.  $[-1 - \sqrt{5}, 1 - \sqrt{5}] \cup [1 + \sqrt{5}, \infty)$

Question Type : **MCQ**

Question ID : **41652915582**

Option 1 ID : **41652960933**

Option 2 ID : **41652960931**

Option 3 ID : **41652960930**

Option 4 ID : **41652960932**

Status : **Answered**

Chosen Option : **2**

**Q.15** The area (in sq. units) above the  $x$ -axis bounded by the parabola,  $x - y^2 - 1 = 0$  and the line  $x - y - 3 = 0$  is :

Options

1.  $\frac{8}{3}$
2.  $\frac{13}{3}$
3.  $\frac{10}{3}$
4. 4

Question Type : **MCQ**

Question ID : **41652915596**

Option 1 ID : **41652960986**

Option 2 ID : **41652960989**

Option 3 ID : **41652960987**

Option 4 ID : **41652960988**

Status : **Answered**

Chosen Option : **2**

**Q.16** Let  $z (\neq -1)$  be any complex number such that  $|z| = 1$ . Then the imaginary part of

$$\frac{\bar{z}(1-z)}{z(1+\bar{z})}$$

is:

(Here  $\theta = \arg z$ )

Options

1.  $-\tan\left(\frac{\theta}{2}\right) \cos\theta$

2.  $\tan\left(\frac{\theta}{2}\right) \cos\theta$

3.  $\tan\left(\frac{\theta}{2}\right) \sin\theta$

4.  $-\tan\left(\frac{\theta}{2}\right) \sin\theta$

Question Type : MCQ

Question ID : 41652915581

Option 1 ID : 41652960928

Option 2 ID : 41652960927

Option 3 ID : 41652960929

Option 4 ID : 41652960926

Status : Answered

Chosen Option : 1

Q.17

If three vectors  $\vec{V}_1 = \alpha \hat{i} + \hat{j} + \hat{k}$ ,  
 $\vec{V}_2 = \hat{i} + \beta \hat{j} - 2\hat{k}$  and  $\vec{V}_3 = \hat{i} + \hat{j}$  are  
 coplanar, and  $\vec{V}_1$  and  $\vec{V}_3$  are  
 perpendicular, then the vector  $\vec{V}_1 \times \vec{V}_2$   
 is :

Options

1.  $-\hat{i} + \hat{j}$

2.  $\hat{i} - \hat{j} + 2\hat{k}$

3.  $2\hat{i} - 2\hat{j} + \hat{k}$

4.  $-\hat{i} + \hat{j} + 2\hat{k}$

Question Type : MCQ

Question ID : 41652915604

Option 1 ID : 41652961020

Option 2 ID : 41652961019

Option 3 ID : 41652961021

Option 4 ID : 41652961018

Status : Answered

Chosen Option : 3

**Q.18** Let the tangent drawn at any point  $P(x, y)$  on a curve intersect the  $x$  and  $y$  axes at two distinct points  $A$  and  $B$  respectively. If  $AP : PB = 5 : 1$ , and the curve passes through the point  $(2, 2)$  then an equation of the curve is :

- Options**
1.  $x^5y = 2^6$
  2.  $xy^5 = 2^6$
  3.  $x^4y = 2^5$
  4.  $xy^4 = 2^5$

Question Type : **MCQ**  
 Question ID : **41652915597**  
 Option 1 ID : **41652960993**  
 Option 2 ID : **41652960990**  
 Option 3 ID : **41652960992**  
 Option 4 ID : **41652960991**  
 Status : **Answered**  
 Chosen Option : **3**

**Q.19** Let  $y$  be an implicit function of  $x$  defined

$$\text{by } \begin{vmatrix} x+y & 2 & 1 \\ 1 & x+y & 2 \\ 1 & 2 & x+y \end{vmatrix} + 12y = 0.$$

If  $y(0) = -1$ , then  $\frac{dy}{dx}$  at  $x=0$  is :

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

Question Type : **MCQ**  
 Question ID : **41652915591**  
 Option 1 ID : **41652960969**  
 Option 2 ID : **41652960968**  
 Option 3 ID : **41652960966**  
 Option 4 ID : **41652960967**  
 Status : **Answered**  
 Chosen Option : **1**

**Q.20** Let A be a  $2 \times 2$  matrix such that  $A^2 + A + I = 0$ , where  $I = I_2$ . Then  $|\text{adj}((I - A)^6)|$  is equal to :

- Options**
1.  $3^4$
  2.  $3^9$
  3.  $3^3$
  4.  $3^6$

Question Type : **MCQ**  
 Question ID : **41652915583**  
 Option 1 ID : **41652960935**  
 Option 2 ID : **41652960937**  
 Option 3 ID : **41652960934**  
 Option 4 ID : **41652960936**  
 Status : **Answered**  
 Chosen Option : **2**

**Q.21** Let the ellipse  $x^2 + 16y^2 = 16$  be inscribed in a rectangle whose sides are parallel to the coordinate axes. If the rectangle is inscribed in another ellipse that passes through the point  $(16, 0)$ , then the equation of the outer ellipse is :

- Options**
1.  $x^2 + 232y^2 = 16^2$
  2.  $x^2 + 248y^2 = 16^2$
  3.  $x^2 + 240y^2 = 16^2$
  4.  $x^2 + 256y^2 = 16^2$

Question Type : **MCQ**  
 Question ID : **41652915601**  
 Option 1 ID : **41652961009**  
 Option 2 ID : **41652961007**  
 Option 3 ID : **41652961008**  
 Option 4 ID : **41652961006**  
 Status : **Answered**  
 Chosen Option : **3**

**Q.22** The sum of the infinite series  $1 + 2 + \frac{2}{3} + \frac{6}{3^2} + \frac{10}{3^3} + \frac{14}{3^4} + \dots$  is :

- Options**
1. 6
  2. 4

3.  $\frac{9}{2}$

4. 5

Question Type : **MCQ**Question ID : **41652915588**Option 1 ID : **41652960956**Option 2 ID : **41652960954**Option 3 ID : **41652960957**Option 4 ID : **41652960955**Status : **Answered**Chosen Option : **3**

Q.23

Let  $f$  be a continuous function defined by

$$f(x) = \begin{cases} \frac{a \sin 2x - b \cos x}{\frac{\pi}{2} - x} & , x > \frac{\pi}{2} \\ 4 & , x = \frac{\pi}{2} \\ \frac{2b \cos x}{\frac{\pi}{2} - x} & , x < \frac{\pi}{2} \end{cases}$$

Then the value of  $a + b$  is :

Options 1. 1

2. 4

3. 8

4. 5

Question Type : **MCQ**Question ID : **41652915590**Option 1 ID : **41652960962**Option 2 ID : **41652960963**Option 3 ID : **41652960965**Option 4 ID : **41652960964**Status : **Answered**Chosen Option : **3**

**Q.24** If  $x_1, x_2, \dots, x_n$  be the observed data such that  $\sum_{i=1}^n x_i - 2n = 180$  and  $\sum_{i=1}^n x_i - 7n = 30$ , then the mean of the data  $(x_1 - 3), (x_2 - 3), \dots, (x_n - 3)$  is equal to :

- Options**
1. 5
  2.  $\frac{16}{3}$
  3. 8
  4.  $\frac{13}{3}$

Question Type : **MCQ**  
 Question ID : **41652915605**  
 Option 1 ID : **41652961022**  
 Option 2 ID : **41652961025**  
 Option 3 ID : **41652961023**  
 Option 4 ID : **41652961024**  
 Status : **Answered**  
 Chosen Option : 2

**Q.25** Let A(1, 3) and C(5, 1) be two opposite vertices of a rectangle. The other two vertices B(a, b) and D(c, d) lie on the line  $y = 2x + k$  for some k. Then the value of  $(a + b) \cdot (c + d)$  is :

- Options**
1. 16
  2. 8
  3. 24
  4. 32

Question Type : **MCQ**  
 Question ID : **41652915598**  
 Option 1 ID : **41652960995**  
 Option 2 ID : **41652960994**  
 Option 3 ID : **41652960996**  
 Option 4 ID : **41652960997**  
 Status : **Answered**  
 Chosen Option : 3

**Q.26** Let the planes  $x - 2y + kz = 0$  and  $x + 5y - z = 0$  be perpendicular. Then the plane through the point  $(2, -2, -2)$  and perpendicular to the given planes also passes through the point :

- Options**
1.  $(-1, 0, -7)$
  2.  $(1, 0, 7)$
  3.  $(0, 5, 8)$
  4.  $(0, 5, -8)$

Question Type : **MCQ**  
 Question ID : **41652915602**  
 Option 1 ID : **41652961012**  
 Option 2 ID : **41652961013**  
 Option 3 ID : **41652961010**  
 Option 4 ID : **41652961011**  
 Status : **Answered**  
 Chosen Option : **4**

**Q.27**  $\int \frac{\sec x}{\sqrt{\sin x \cdot \cos^5 x}} dx$  is equal to :

(where C is a constant of integration)

- Options**
1.  $2(\tan x)^{\frac{1}{2}} + \frac{1}{5}(\tan x)^{\frac{5}{2}} + C$
  2.  $2(\tan x)^{\frac{1}{2}} + \frac{2}{5}(\tan x)^{\frac{5}{2}} + C$
  3.  $(\tan x)^{\frac{1}{2}} + \frac{2}{5}(\tan x)^{\frac{5}{2}} + C$
  4.  $2(\tan x)^{\frac{1}{2}} - \frac{2}{5}(\tan x)^{\frac{5}{2}} + C$

Question Type : **MCQ**  
 Question ID : **41652915594**  
 Option 1 ID : **41652960980**  
 Option 2 ID : **41652960978**  
 Option 3 ID : **41652960979**  
 Option 4 ID : **41652960981**  
 Status : **Answered**  
 Chosen Option : **2**

**Q.28** If the system of linear equations  
 $x + 4y - 3z = 2$   
 $2x + 7y - 4z = \alpha$   
 $-x - 5y + 5z = \beta$   
 has infinitely many solutions, then the ordered pair  $(\alpha, \beta)$  cannot take the value :

- Options**
1.  $(3, -3)$
  2.  $(2, -4)$
  3.  $(4, -2)$
  4.  $(-3, 3)$

Question Type : **MCQ**  
 Question ID : **41652915584**  
 Option 1 ID : **41652960940**  
 Option 2 ID : **41652960939**  
 Option 3 ID : **41652960938**  
 Option 4 ID : **41652960941**  
 Status : **Answered**  
 Chosen Option : **3**

**Q.29** In an increasing geometric series, the sum of the first and the sixth term is 66 and the product of the second and the fifth terms is 128. Then the sum of the first 6 terms of this series is :

- Options**
1. 128
  2. 129
  3. 126
  4. 127

Question Type : **MCQ**  
 Question ID : **41652915587**  
 Option 1 ID : **41652960953**  
 Option 2 ID : **41652960951**  
 Option 3 ID : **41652960952**  
 Option 4 ID : **41652960950**  
 Status : **Answered**  
 Chosen Option : **2**

**Q.30** Let the abscissae of two points A and B on a circle be the roots of  $x^2 + 2x - 4 = 0$  and the ordinates of A and B be the roots of  $y^2 + 4y - 16 = 0$ . If AB is a diameter of this circle, then the radius of this circle is :

- Options
1.  $2\sqrt{10}$
  2. 6
  3. 5
  4.  $2\sqrt{6}$

Question Type : MCQ  
Question ID : 41652915599  
Option 1 ID : 41652961001  
Option 2 ID : 41652960999  
Option 3 ID : 41652960998  
Option 4 ID : 41652961000  
Status : Answered  
Chosen Option : 1

Section : Aptitude Test

Comprehension:

SubQuestion No : 1

Q.1 The Lotus Temple is located in which one of the following city ?

- Options
1. Lucknow
  2. Kanpur
  3. New Delhi
  4. Nagpur

Question Type : MCQ  
Question ID : 41652915620  
Option 1 ID : 41652961081  
Option 2 ID : 41652961080  
Option 3 ID : 41652961078  
Option 4 ID : 41652961079  
Status : Answered  
Chosen Option : 3

Comprehension:

SubQuestion No : 2

Q.2 Zaha Hadid was born in which country amongst the following ?

- Options
1. Iran
  2. Iraq
  3. Afghanistan
  4. Turkistan

Question Type : **MCQ**  
Question ID : **41652915625**  
Option 1 ID : **41652961098**  
Option 2 ID : **41652961099**  
Option 3 ID : **41652961100**  
Option 4 ID : **41652961101**  
Status : **Answered**  
Chosen Option : **2**

Comprehension:

SubQuestion No : 3

**Q.3** An escalator moves in which of the following directions ?

- Options
1. In steps
  2. Only vertically
  3. Vertically and Horizontally
  4. Only horizontally

Question Type : **MCQ**  
Question ID : **41652915623**  
Option 1 ID : **41652961093**  
Option 2 ID : **41652961090**  
Option 3 ID : **41652961092**  
Option 4 ID : **41652961091**  
Status : **Answered**  
Chosen Option : **3**

Comprehension:

SubQuestion No : 4

**Q.4** Helical staircases are which one of the following ?

- Options
1. Curving staircases
  2. Dog leg staircases
  3. Staircases with no railings
  4. Straight flights

Question Type : **MCQ**  
Question ID : **41652915622**  
Option 1 ID : **41652961087**  
Option 2 ID : **41652961086**  
Option 3 ID : **41652961089**  
Option 4 ID : **41652961088**  
Status : **Answered**  
Chosen Option : **3**

Comprehension:

SubQuestion No : 5

Q.5 Parquet flooring is usually made of which of the following ?

- Options
1. Wood
  2. Cement
  3. Granite
  4. Marble

Question Type : MCQ  
Question ID : 41652915615  
Option 1 ID : 41652961061  
Option 2 ID : 41652961060  
Option 3 ID : 41652961058  
Option 4 ID : 41652961059  
Status : Answered  
Chosen Option : 3

Comprehension:

SubQuestion No : 6

Q.6 The most famous temple in the Khajuraho group of temples is which one of the following ?

- Options
1. Ganesh Temple
  2. Kandariya Mahadev Temple
  3. Krishna Temple
  4. Shiva Temple

Question Type : MCQ  
Question ID : 41652915614  
Option 1 ID : 41652961056  
Option 2 ID : 41652961055  
Option 3 ID : 41652961057  
Option 4 ID : 41652961054  
Status : Answered  
Chosen Option : 4

Comprehension:

SubQuestion No : 7

Q.7 A small lift for carrying small loads only is known as which of the following ?

- Options
1. A deaf bearer
  2. A jockey boy

- 3. A dumb waiter
- 4. A push upper

Question Type : **MCQ**  
Question ID : **41652915611**  
Option 1 ID : **41652961042**  
Option 2 ID : **41652961044**  
Option 3 ID : **41652961043**  
Option 4 ID : **41652961045**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

SubQuestion No : 8

**Q.8** Rooms with white painted walls appears to be which of the following ?

- Options
- 1. Darker
  - 2. Smaller
  - 3. Narrower
  - 4. Larger

Question Type : **MCQ**  
Question ID : **41652915624**  
Option 1 ID : **41652961096**  
Option 2 ID : **41652961094**  
Option 3 ID : **41652961097**  
Option 4 ID : **41652961095**  
Status : **Answered**  
Chosen Option : **4**

**Comprehension:**

SubQuestion No : 9

**Q.9** The Sas Bahu Temple is located in which of the following ?

- Options
- 1. Gwalior Fort
  - 2. Jaipur Fort
  - 3. Jhansi Fort
  - 4. Red Fort

Question Type : **MCQ**  
Question ID : **41652915618**  
Option 1 ID : **41652961072**  
Option 2 ID : **41652961073**  
Option 3 ID : **41652961071**  
Option 4 ID : **41652961070**

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

Comprehension:

SubQuestion No : 10

Q.10 Which one of the following is a UNESCO World Heritage Site ?

- Options
1. Bijapur
  2. Kochi
  3. Hampi
  4. Bijnor

Question Type : **MCQ**  
Question ID : **41652915613**  
Option 1 ID : **41652961053**  
Option 2 ID : **41652961050**  
Option 3 ID : **41652961051**  
Option 4 ID : **41652961052**  
Status : **Answered**  
Chosen Option : **3**

Comprehension:

SubQuestion No : 11

Q.11 Which amongst the following is the city in Italy that is known for its leaning tower ?

- Options
1. Rome
  2. Pisa
  3. Florence
  4. Venice

Question Type : **MCQ**  
Question ID : **41652915619**  
Option 1 ID : **41652961076**  
Option 2 ID : **41652961077**  
Option 3 ID : **41652961075**  
Option 4 ID : **41652961074**  
Status : **Answered**  
Chosen Option : **2**

Comprehension:

SubQuestion No : 12

Q.12 Which one of the following is the tallest building in Bengaluru ?

- Options
1. World Trade Centre
  2. Concord Tower
  3. Mantri Pinnacle
  4. U B Tower

Question Type : **MCQ**  
Question ID : **41652915617**  
Option 1 ID : **41652961066**  
Option 2 ID : **41652961068**  
Option 3 ID : **41652961067**  
Option 4 ID : **41652961069**  
Status : **Answered**  
Chosen Option : **4**

**Comprehension:**

SubQuestion No : 13

**Q.13** The fort in Hyderabad is known as which of the following ?

- Options
1. Siladhari
  2. Golconda
  3. Virbanda
  4. Bahubali

Question Type : **MCQ**  
Question ID : **41652915616**  
Option 1 ID : **41652961064**  
Option 2 ID : **41652961063**  
Option 3 ID : **41652961065**  
Option 4 ID : **41652961062**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

SubQuestion No : 14

**Q.14** Hindustan Parryware in the Indian market is known for which of the following product ?

- Options
1. Wall tiles
  2. Pipes
  3. Sanitary ware
  4. Wooden tables

Question Type : **MCQ**  
Question ID : **41652915612**



Option 1 ID : 41652961048  
Option 2 ID : 41652961046  
Option 3 ID : 41652961047  
Option 4 ID : 41652961049  
Status : Answered  
Chosen Option : 3

**Comprehension:**

SubQuestion No : 15

**Q.15** Cement Plaster is used for which of the following ?

- Options
1. Covering walls
  2. Making roofs
  3. Making floors
  4. Making staircases

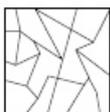
Question Type : MCQ  
Question ID : 41652915621  
Option 1 ID : 41652961082  
Option 2 ID : 41652961083  
Option 3 ID : 41652961085  
Option 4 ID : 41652961084  
Status : Answered  
Chosen Option : 2

**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 : 16**

**Q.16**



**Options**

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

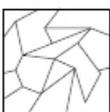
Question Type : **MCQ**  
Question ID : **41652915629**  
Option 1 ID : **41652961110**  
Option 2 ID : **41652961112**  
Option 3 ID : **41652961113**  
Option 4 ID : **41652961111**  
Status : **Answered**  
Chosen Option : 1

**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 : 17**

**Q.17**



**Options**

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

Question Type : **MCQ**  
Question ID : **41652915630**  
Option 1 ID : **41652961116**  
Option 2 ID : **41652961114**  
Option 3 ID : **41652961117**  
Option 4 ID : **41652961115**  
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 : 18**

Q.18



Options

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

Question Type : **MCQ**  
Question ID : **41652915631**  
Option 1 ID : **41652961121**  
Option 2 ID : **41652961119**  
Option 3 ID : **41652961118**  
Option 4 ID : **41652961120**  
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 : 19**

Q.19



Options

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

Question Type : **MCQ**  
Question ID : **41652915628**  
Option 1 ID : **41652961109**  
Option 2 ID : **41652961108**  
Option 3 ID : **41652961107**  
Option 4 ID : **41652961106**  
Status : **Answered**

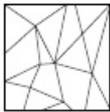
Chosen Option : 4

**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 : 20

Q.20



Options

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

Question Type : **MCQ**  
 Question ID : **41652915627**  
 Option 1 ID : **41652961103**  
 Option 2 ID : **41652961105**  
 Option 3 ID : **41652961102**  
 Option 4 ID : **41652961104**  
 Status : **Answered**  
 Chosen Option : 1

**Comprehension:**

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

SubQuestion No : 21

Q.21



Options

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

Question Type : **MCQ**  
 Question ID : **41652915634**

Option 1 ID : 41652961127  
Option 2 ID : 41652961128  
Option 3 ID : 41652961126  
Option 4 ID : 41652961129  
Status : Answered  
Chosen Option : 2

**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 : 41652915636  
Option 1 ID : 41652961136  
Option 2 ID : 41652961134  
Option 3 ID : 41652961135  
Option 4 ID : 41652961137  
Status : Answered  
Chosen Option : 2

**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.



Question Type : **MCQ**  
Question ID : **41652915633**  
Option 1 ID : **41652961122**  
Option 2 ID : **41652961125**  
Option 3 ID : **41652961124**  
Option 4 ID : **41652961123**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

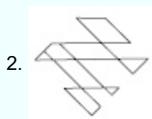
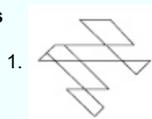
Directions : Which one of the answer figure will complete the sequence of the three problem figures ?

SubQuestion No : 24

Q.24



Options



Question Type : **MCQ**  
Question ID : **41652915637**  
Option 1 ID : **41652961141**  
Option 2 ID : **41652961138**  
Option 3 ID : **41652961140**  
Option 4 ID : **41652961139**  
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.
- 3.
- 4.

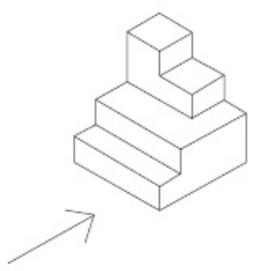
Question Type : MCQ  
Question ID : 41652915635  
Option 1 ID : 41652961132  
Option 2 ID : 41652961133  
Option 3 ID : 41652961130  
Option 4 ID : 41652961131  
Status : Answered  
Chosen Option : 2

Comprehension:

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

SubQuestion No : 26

Q.26



Options

- 1.
- 2.



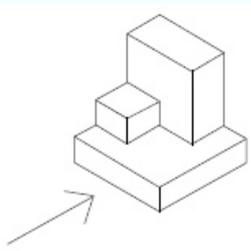
Question Type : **MCQ**  
Question ID : **41652915642**  
Option 1 ID : **41652961156**  
Option 2 ID : **41652961154**  
Option 3 ID : **41652961155**  
Option 4 ID : **41652961157**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

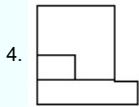
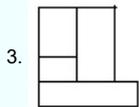
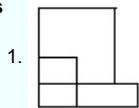
Directions : The 3D figure shows the view of an object. Identify the correct front view looking in the direction of the arrow, from amongst the answer figures.

**SubQuestion No : 27**

**Q.27**



**Options**



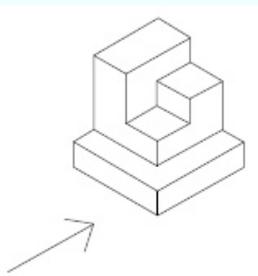
Question Type : **MCQ**  
Question ID : **41652915640**  
Option 1 ID : **41652961148**  
Option 2 ID : **41652961147**  
Option 3 ID : **41652961146**  
Option 4 ID : **41652961149**  
Status : **Answered**  
Chosen Option : **1**

**Comprehension:**

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

**SubQuestion No : 28**

**Q.28**



**Options**

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

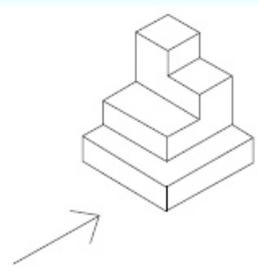
Question Type : **MCQ**  
Question ID : **41652915643**  
Option 1 ID : **41652961160**  
Option 2 ID : **41652961161**  
Option 3 ID : **41652961158**  
Option 4 ID : **41652961159**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

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

**SubQuestion No : 29**

**Q.29**



Options

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

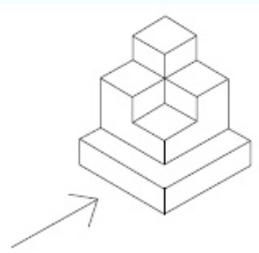
Question Type : **MCQ**  
Question ID : **41652915639**  
Option 1 ID : **41652961144**  
Option 2 ID : **41652961145**  
Option 3 ID : **41652961142**  
Option 4 ID : **41652961143**  
Status : **Answered**  
Chosen Option : **3**

**Comprehension:**

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

**SubQuestion No : 30**

**Q.30**



Options

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

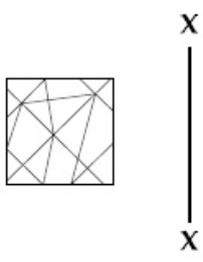
Question Type : **MCQ**  
Question ID : **41652915641**  
Option 1 ID : **41652961151**  
Option 2 ID : **41652961152**  
Option 3 ID : **41652961150**  
Option 4 ID : **41652961153**  
Status : **Answered**  
Chosen Option : 1

**Comprehension:**

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

SubQuestion No : 31

Q.31



Options

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

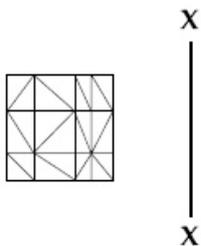
Question Type : **MCQ**  
Question ID : **41652915647**  
Option 1 ID : **41652961172**  
Option 2 ID : **41652961173**  
Option 3 ID : **41652961170**  
Option 4 ID : **41652961171**  
Status : **Answered**  
Chosen Option : 2

**Comprehension:**

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

SubQuestion No : 32

Q.32



Options

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

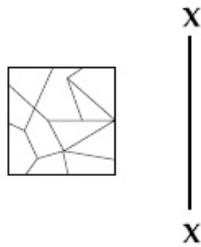
Question Type : MCQ  
Question ID : 41652915645  
Option 1 ID : 41652961165  
Option 2 ID : 41652961164  
Option 3 ID : 41652961163  
Option 4 ID : 41652961162  
Status : Answered  
Chosen Option : 2

**Comprehension:**

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

SubQuestion No : 33

Q.33



Options

- 1.

- 2.
- 3.
- 4.

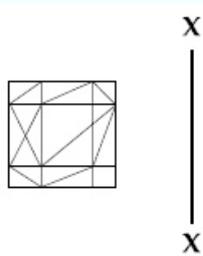
Question Type : **MCQ**  
Question ID : **41652915648**  
Option 1 ID : **41652961176**  
Option 2 ID : **41652961177**  
Option 3 ID : **41652961175**  
Option 4 ID : **41652961174**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

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

SubQuestion No : 34

Q.34



Options

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

Question Type : **MCQ**  
Question ID : **41652915646**

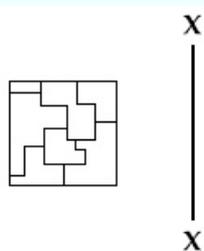
Option 1 ID : 41652961169  
Option 2 ID : 41652961167  
Option 3 ID : 41652961166  
Option 4 ID : 41652961168  
Status : Answered  
Chosen Option : 2

**Comprehension:**

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

SubQuestion No : 35

Q.35



Options

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

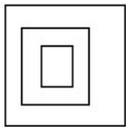
Question Type : MCQ  
Question ID : 41652915649  
Option 1 ID : 41652961181  
Option 2 ID : 41652961180  
Option 3 ID : 41652961179  
Option 4 ID : 41652961178  
Status : Answered  
Chosen Option : 2

**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.

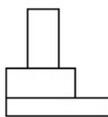
SubQuestion No : 36

Q.36

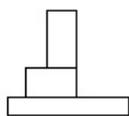


Options

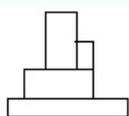
1.



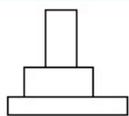
2.



3.



4.



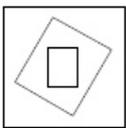
Question Type : **MCQ**  
Question ID : **41652915651**  
Option 1 ID : **41652961183**  
Option 2 ID : **41652961182**  
Option 3 ID : **41652961185**  
Option 4 ID : **41652961184**  
Status : **Answered**  
Chosen Option : **3**

**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.

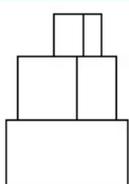
**SubQuestion No : 37**

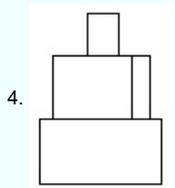
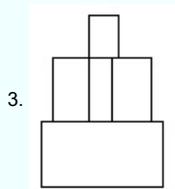
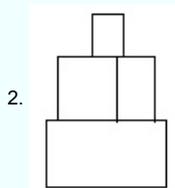
Q.37



Options

1.





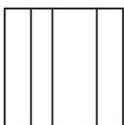
Question Type : **MCQ**  
Question ID : **41652915653**  
Option 1 ID : **41652961192**  
Option 2 ID : **41652961191**  
Option 3 ID : **41652961190**  
Option 4 ID : **41652961193**  
Status : **Answered**  
Chosen Option : **4**

**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 : 38

Q.38



Options





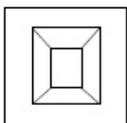
Question Type : **MCQ**  
Question ID : **41652915655**  
Option 1 ID : **41652961201**  
Option 2 ID : **41652961200**  
Option 3 ID : **41652961198**  
Option 4 ID : **41652961199**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

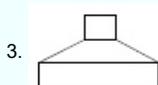
Directions : The problem figure shows the top view of an object. Identify the correct elevation from amongst the answer figures looking in the direction of the arrow.

SubQuestion No : 39

Q.39



Options



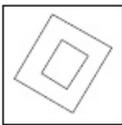
Question Type : **MCQ**  
Question ID : **41652915654**  
Option 1 ID : **41652961197**  
Option 2 ID : **41652961195**  
Option 3 ID : **41652961194**  
Option 4 ID : **41652961196**  
Status : **Answered**  
Chosen Option : **2**

**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.

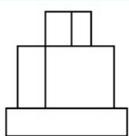
SubQuestion No : 40

Q.40

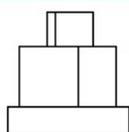


Options

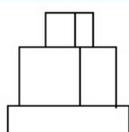
1.



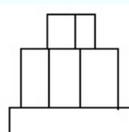
2.



3.



4.



Question Type : MCQ

Question ID : 41652915652

Option 1 ID : 41652961186

Option 2 ID : 41652961187

Option 3 ID : 41652961188

Option 4 ID : 41652961189

Status : Answered

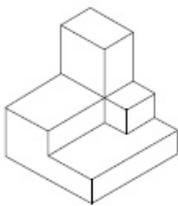
Chosen Option : 2

Comprehension:

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

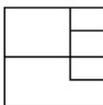
SubQuestion No : 41

Q.41



Options

1.



- 2.
- 3.
- 4.

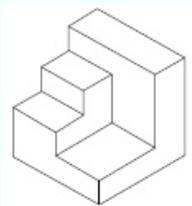
Question Type : **MCQ**  
Question ID : **41652915658**  
Option 1 ID : **41652961207**  
Option 2 ID : **41652961209**  
Option 3 ID : **41652961206**  
Option 4 ID : **41652961208**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

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

SubQuestion No : 42

Q.42



Options

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

Question Type : **MCQ**  
Question ID : **41652915659**  
Option 1 ID : **41652961213**  
Option 2 ID : **41652961211**  
Option 3 ID : **41652961212**

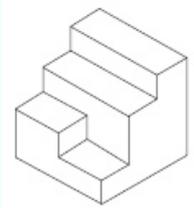
Option 4 ID : 41652961210  
Status : Answered  
Chosen Option : 2

**Comprehension:**

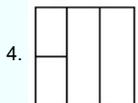
Directions : The 3D figure shows the view of an object. Identify the correct top view from amongst the answer figures.

**SubQuestion No : 43**

**Q.43**



**Options**



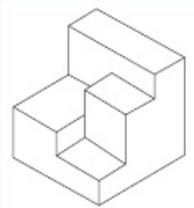
Question Type : MCQ  
Question ID : 41652915660  
Option 1 ID : 41652961216  
Option 2 ID : 41652961214  
Option 3 ID : 41652961215  
Option 4 ID : 41652961217  
Status : Answered  
Chosen Option : 2

**Comprehension:**

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

**SubQuestion No : 44**

**Q.44**



Options

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

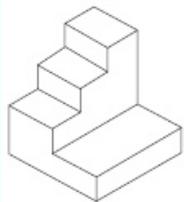
Question Type : **MCQ**  
Question ID : **41652915661**  
Option 1 ID : **41652961218**  
Option 2 ID : **41652961220**  
Option 3 ID : **41652961219**  
Option 4 ID : **41652961221**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

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

SubQuestion No : 45

Q.45



Options

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

Question Type : **MCQ**  
Question ID : **41652915657**

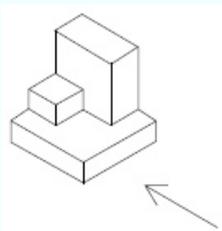
Option 1 ID : 41652961203  
Option 2 ID : 41652961205  
Option 3 ID : 41652961204  
Option 4 ID : 41652961202  
Status : Answered  
Chosen Option : 2

**Comprehension:**

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

SubQuestion No : 46

Q.46



Options

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

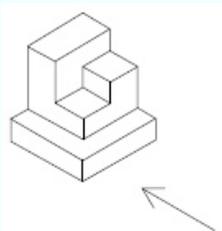
Question Type : MCQ  
Question ID : 41652915664  
Option 1 ID : 41652961227  
Option 2 ID : 41652961229  
Option 3 ID : 41652961226  
Option 4 ID : 41652961228  
Status : Answered  
Chosen Option : 1

**Comprehension:**

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

SubQuestion No : 47

Q.47



Options

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

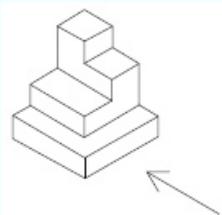
Question Type : **MCQ**  
Question ID : **41652915667**  
Option 1 ID : **41652961239**  
Option 2 ID : **41652961240**  
Option 3 ID : **41652961238**  
Option 4 ID : **41652961241**  
Status : **Answered**  
Chosen Option : **2**

**Comprehension:**

Directions : The 3D figure shows the view of an object. Identify the correct side view looking 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 : **41652915663**  
Option 1 ID : **41652961223**  
Option 2 ID : **41652961225**

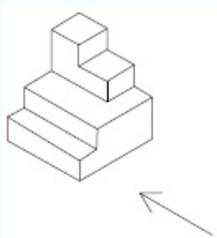
Option 3 ID : 41652961224  
Option 4 ID : 41652961222  
Status : Answered  
Chosen Option : 2

**Comprehension:**

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

SubQuestion No : 49

Q.49



Options

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

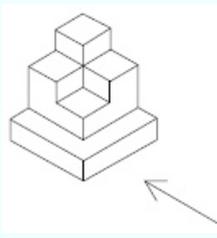
Question Type : MCQ  
Question ID : 41652915666  
Option 1 ID : 41652961237  
Option 2 ID : 41652961235  
Option 3 ID : 41652961234  
Option 4 ID : 41652961236  
Status : Answered  
Chosen Option : 2

**Comprehension:**

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

SubQuestion No : 50

Q.50



## Options

1. 
2. 
3. 
4. 

Question Type : **MCQ**Question ID : **41652915665**Option 1 ID : **41652961232**Option 2 ID : **41652961233**Option 3 ID : **41652961231**Option 4 ID : **41652961230**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 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 : **41652915668**Status : **Not Attempted**

**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 : **41652915669**  
Status : **Not Attempted**

**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 square table cloth. Color or shade it to enhance its visual quality.

**OR**

Draw a picture of a classroom looking towards the teacher from behind the students.

**OR**

Draw from imagination a picture of an officer sitting in his office.

Question Type : **SUBJECTIVE**  
Question ID : **41652915670**  
Status : **Not Attempted**