National Testing Agency

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Subject Name :	Paper 2A (B.Arch)
Creation Date :	2024-04-12 17:48:22
Duration :	180
Total Marks :	400

Paper 2A (B.Arch)

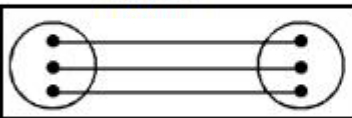
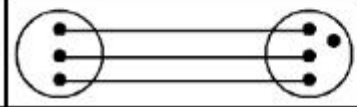
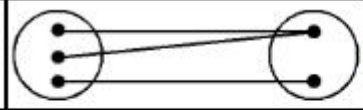
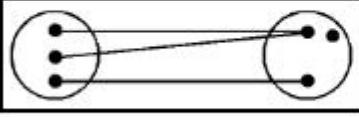
Group Id :	680191192

Mathematics Section A

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

Question Number : 1 Question Id : 68019114801 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

LIST I		LIST II	
A.		I.	Neither surjective nor injective
B.		II.	Surjective but not injective
C.		III.	Injective but not surjective
D.		IV.	Injective and surjective

Choose the correct answer from the options given below:

Options :

68019157461. A-IV, B-II, C-III, D-I

68019157462. A-I, B-II, C-IV, D-III

68019157463. A-IV, B-III, C-II, D-I

68019157464. A-IV, B-III, C-I, D-II

Question Number : 2 Question Id : 68019114802 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

A college awarded 38 medals for cricket, 15 for tennis and 20 for football. If these medals were bagged by a total of 58 students and only 3 students got medals for all the three games, then how many students received medals for exactly two of the three games?

Options :

68019157465. 9

68019157466. 18

68019157467. 12

68019157468. 6

Question Number : 3 Question Id : 68019114803 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If α and β are the roots of $ax^2 + bx + c = 0$, then the value of $\frac{1}{(a\alpha+b)^2} + \frac{1}{(a\beta+b)^2}$ is

Options :

68019157469. $\frac{b^2-2c}{c^2}$

68019157470. $\frac{b^2-2ac}{(ac)^2}$

68019157471. $\frac{b^2-2c}{c}$

68019157472. $\frac{b^2-2ac}{ac}$

Question Number : 4 Question Id : 68019114804 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Let $A = \begin{bmatrix} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \\ 9 & 9 & 9 & 9 \\ 8 & 8 & 8 & 8 \end{bmatrix}$, then determinant of A =

Options :

68019157473. -1

68019157474. 0

68019157475. 1

68019157476. 72

Question Number : 5 Question Id : 68019114805 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

In how many ways can we select four cards from an ordinary pack of playing cards so that two of them are of the same denomination and the remaining two are of some other same denomination?

Options :

68019157477. 78

68019157478. 150

68019157479. 715

68019157480. 5616

Question Number : 6 Question Id : 68019114806 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If the coefficient of x^7 and x^8 in the expansion of $\left(2+\frac{x}{3}\right)^n$ are equal, then n is

Options :

68019157481. 56

68019157482. 55

68019157483. 45

68019157484. 15

Question Number : 7 Question Id : 68019114807 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The sum of all those terms of the arithmetic progression 2, 6, 10, 14, ... , 598 which are **not** divisible by 3, is equal to

Options :

68019157485. 30300

68019157486. 30000

68019157487. 29400

68019157488. 30600

Question Number : 8 Question Id : 68019114808 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The first two terms of a G.P. are x^{-3} and x^n, respectively. If x^{42} is the sixth term of the same progression, then n^2 is equal to

Options :

68019157489. 16

68019157490. 9

68019157491. 36

68019157492. 25

Question Number : 9 Question Id : 68019114809 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Suppose L is the line joining the points (0, 0) and (1, 2). If a line parallel to L meets the curve $y = 2x^2 + 3x + 1$ only at a single point P, then the point P is

Options :

68019157493. $\left(\frac{1}{4}, \frac{3}{8}\right)$

68019157494. $(2, 15)$

68019157495. $\left(\frac{-1}{4}, \frac{3}{8}\right)$

68019157496. $\left(\frac{-3}{4}, \frac{5}{16}\right)$

Question Number : 10 Question Id : 68019114810 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

A manufacturer can sell x items at a price of ₹ $\left(5-\frac{x}{100}\right)$ each. The cost price of x items is ₹ $\left(\frac{x}{5}+500\right)$. The number of items he should sell to reach maximum profit is

Options :

68019157497. 100

68019157498. 240

68019157499. 500

68019157500. 480

Question Number : 11 Question Id : 68019114811 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

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

Options :

68019157501. 0

68019157502. $\frac{1}{2}$

68019157503. 1

68019157504. 2

Question Number : 12 Question Id : 68019114812 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If $(1+\cos x)\frac{dy}{dx}-(y-3)\sin x=0$ and $y(0)=0$, then the value of $y\left(\frac{\pi}{2}\right)$ is

Options :

68019157505. -3

68019157506. 3

68019157507. 9

68019157508. 6

Question Number : 13 Question Id : 68019114813 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If a straight line passing through point P (3, –5) is such that its intercepted portion between the co-ordinate axes is bisected at P, then the equation of the line is

Options :

68019157509. $5x + 3y + 30 = 0$

68019157510. $5x - 3y - 30 = 0$

68019157511. $5x - 3y + 30 = 0$

68019157512. $-5x - 3y + 30 = 0$

Question Number : 14 Question Id : 68019114814 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The intercept on the line $x = y$ by the circle $x^2 + y^2 - 2y = 0$ is AB. The equation of the circle with AB as a diameter is

Options :

68019157513. $x^2 + y^2 + x + y = 0$

68019157514. $x^2 + y^2 - x - y = 0$

68019157515. $x^2 + y^2 - x + y = 0$

68019157516. $x^2 + y^2 + x - y = 0$

Question Number : 15 Question Id : 68019114815 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If the foot of the perpendicular from the point (0, 0, 0) on the line $\frac{x+2}{5} = \frac{y+2}{2} = \frac{z+8}{3}$ is (a, b, c), then $a^2 + b^2 + c^2$ is

Options :

68019157517. 34

68019157518. 14

68019157519. 24

68019157520. 44

Question Number : 16 Question Id : 68019114816 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If the vectors $\overrightarrow{AB} = 3\hat{i} + 8\hat{k}$ and $\overrightarrow{AC} = 5\hat{i} - 2\hat{j} + 6\hat{k}$ are the sides of a triangle ABC, then the length of the median through A is

Options :

68019157521. $\sqrt{33}$

68019157522. $\sqrt{66}$

68019157523. $\sqrt{56}$

68019157524. $\sqrt{72}$

Question Number : 17 Question Id : 68019114817 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

If $\vec{a} = 6\hat{i} + 2\hat{j} - \lambda_1\hat{k}$, $\vec{b} = 3\hat{i} + (3 - \lambda_2)\hat{j} + 2\hat{k}$ and $\vec{c} = 2\hat{i} + (1 + \lambda_3)\hat{j} - 3\hat{k}$ are three vectors such that $\vec{a} = 3\vec{c}$ and $\vec{b}$ is perpendicular to $\vec{c}$ then $(\lambda_1, \lambda_2, \lambda_3)$ is

Options :

68019157525. $\left(9, 21, -\frac{1}{3}\right)$

68019157526. $\left(9, 3, -\frac{1}{3}\right)$

68019157527. $\left(\frac{1}{3}, -\frac{1}{3}, \frac{1}{3}\right)$

68019157528. $(3, 3, 1)$

Question Number : 18 Question Id : 68019114818 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Let x_1, x_2, x_3, x_4, x_5 be observations with mean m and standard deviation s. Then, which of the following statements are correct:

A. Mean of the observations $x_1 + k, x_2 + k, x_3 + k, x_4 + k, x_5 + k$ is $m + 5k$

B. Mean of the observations $kx_1, kx_2, kx_3, kx_4, kx_5$ is km.

C. The standard deviation of the observations $x_1 + k, x_2 + k, x_3 + k, x_4 + k, x_5 + k$ is s.

D. The standard deviation of the observations $kx_1, kx_2, kx_3, kx_4, kx_5$ is k^5s.

Choose the correct answer from the options given below :

Options :

68019157529. A, B, C, D

68019157530. A, C only

68019157531. B, D only

68019157532. B, C only

Question Number : 19 Question Id : 68019114819 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Let the area of the region enclosed between the two circles $x^2 + y^2 = a^2$ and $(x-a)^2 + y^2 = a^2$ be $\frac{m}{3}\left(4\pi - 3\sqrt{3}\right)$ sq. units for some $a \geq 2$. If a is a root of $x^3 - 3x^2 - 6x + 8 = 0$, then

Options :

68019157533. $m^2 = a^4$

68019157534. $m^2 = a^3$

68019157535. $m^4 = a^2$

68019157536. $m^3 = a^2$

Question Number : 20 Question Id : 68019114820 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Suppose $\begin{vmatrix} f'(x) & f(x) \\ f''(x) & f'(x) \end{vmatrix} = 0$, where $f(x)$ is continuously differentiable function with $f'(x) \neq 0 \ \forall \ x \in \mathbb{R}$ and satisfies $f(0)=1$ and $f'(0)=4$. If $f(x) = e^{\lambda x} + \mu$, where $\lambda, \mu \in \mathbb{R}$ then the value of $\lambda^2+\mu^2$ is

Options :

68019157537. 2

68019157538. 4

68019157539. 8

68019157540. 16

Mathematics Section B

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

Question Number : 21 Question Id : 68019114821 Question Type : SA Correct Marks : 4 Wrong Marks : 1

The equations $ax^2 + bx + a = 0$, $(a, b \in \mathbb{R})$ and $x^3 - 2x^2 + 2x - 1 = 0$ have two common roots. Then the value of $a + b$ is _____.

Question Number : 22 Question Id : 68019114822 Question Type : SA Correct Marks : 4 Wrong Marks : 1

Let A be a matrix satisfying $A^3 = 3A + 2I$ where $A \neq nI$, $n \in \mathbb{Z}$. If $A^2 + \alpha A + \beta I = O$, then maximum value of $|\alpha + \beta|$ is _____.

Question Number : 23 Question Id : 68019114823 Question Type : SA Correct Marks : 4 Wrong Marks : 1

An equilateral triangle is inscribed in the ellipse $\frac{x^2}{3}+y^2=1$ such that one of the vertex of the triangle is (0, 1) and one of the altitude of the triangle is along the y-axis. If A is the area of the equilateral triangle. Then $625A^2$ is equal to _____.

Question Number : 24 Question Id : 68019114824 Question Type : SA Correct Marks : 4 Wrong Marks : 1

The volume of the greatest cylinder that can be inscribed in a cone of height $\frac{3}{\sqrt[3]{\pi}}$ and semi-vertical angle 45° is _____.

Question Number : 25 Question Id : 68019114825 Question Type : SA Correct Marks : 4 Wrong Marks : 1

If the function $f(x)$ is defined as $f(x)=\begin{vmatrix} \frac{1}{1+e^{\sin x}} & \sin x \\ \sqrt{1-x^2} & 2 \end{vmatrix}$. Then the value of $\frac{1}{\pi}\int_{-\pi/2}^{\pi/2} f(x)\,dx$ is equal to_____.

Question Number : 26 Question Id : 68019114826 Question Type : SA Correct Marks : 4 Wrong Marks : 1

A line touches the curve $y=y(x)$ at a point (x, y) having slope $\frac{1+y^2}{1+x^2}$,where $x>0$. If $y(2)=1$, $y(3)=\frac{\alpha}{\beta}$ and $gcd\{\alpha, \beta\}=1$, then the value of $\alpha+\beta$ is _____.

Question Number : 27 Question Id : 68019114827 Question Type : SA Correct Marks : 4 Wrong Marks : 1

The equation of the base of an equilateral triangle is $x+y=1$ and the opposite vertex has co-ordinates (–3, 2). The area of the triangle (in square units) is represented by A, then the value of $\sqrt{3}A$ is _____.

Question Number : 28 Question Id : 68019114828 Question Type : SA Correct Marks : 4 Wrong Marks : 1

Let R be the point (13, – 8, 10) and P(α, β, λ) be the image of the point Q (5, 2, 1) in the line $x-2=3-y=z+1$. Then the square of the area of the triangle PQR is _____.

Question Number : 29 Question Id : 68019114829 Question Type : SA Correct Marks : 4 Wrong Marks : 1

A hospital conducts a free eye check-up drive at 3 different locations A, B and C of a city. The number of people that came for test at A is thrice as much as that at B, and number of people that came at B is same as that at C. The results show that 4% population at A, 2% at B and 3% at C have poor eye-sight. If a person from the city goes for an army job and is found to have poor eye-sight, and the probability that he is not from location C is $\frac{p}{q}$, where $\frac{p}{q}$ is in simplest form, then value of $(p+q)$ is _____.

Question Number : 30 Question Id : 68019114830 Question Type : SA Correct Marks : 4 Wrong Marks : 1

The number of pairs (x, y) satisfying the equations $\sin x + \sin y = \sin(x+y)$ and $|x| + |y| = 1$ is _____.

Aptitude Test

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

Question Number : 31 Question Id : 68019114831 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

In a certain word code, EXHAUST is written as CZFCSUR. How is NETWORK written in that code ?

Options :

68019157551. LCVYQTI

68019157552. LGVYQTM

68019157553. LGRYMTI

68019157554. LCRYQTM

Question Number : 32 Question Id : 68019114832 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

In a code language, if "BRICK" is written as "CQJBL", then "CEMENT" is _____

Options :

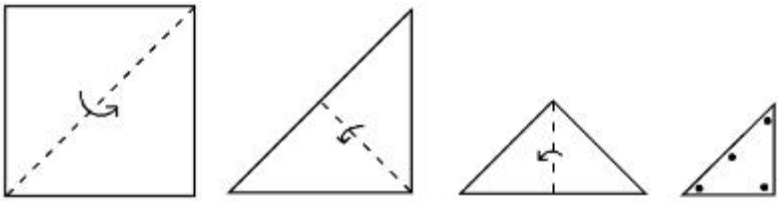
68019157555. DDOFOS

68019157556. DDODOS

68019157557. DDNDOS

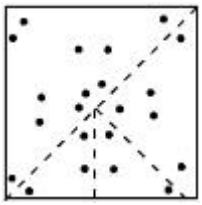
68019157558. DDNFOS

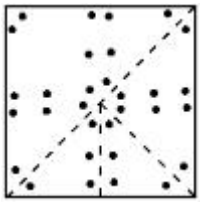
Question Number : 33 Question Id : 68019114833 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

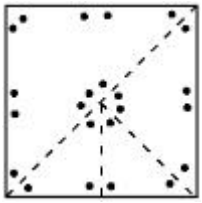


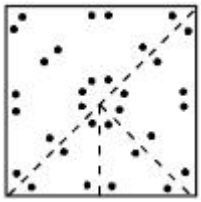
When the paper is folded in a given pattern and is cut at the end. Identify which pattern is formed when the paper is unfold?

Options :

68019157559. 

68019157560. 

68019157561. 

68019157562. 

Question Number : 34 Question Id : 68019114834 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Match List I with List II

LIST I (Components/Material)		LIST II (Functions)	
A.	Cement	I.	Load Bearing
B.	Window	II.	Tensile strength
C.	Foundation	III.	Setting time
D.	Steel	IV.	Glazing

Choose the correct answer from the options given below:

Options :

68019157563. A-I, B-IV, C-III, D-II

68019157564. A-I, B-II, C-III, D-IV

68019157565. A-III, B-IV, C-I, D-II

68019157566. A-IV, B-III, C-II, D-I

Question Number : 35 Question Id : 68019114835 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Match List I with List II

LIST I(struchture)		LIST II(places)	
A.	Humayun's Tomb	I.	Gujarat
B.	Bibi Ka Maqbara	II.	New Delhi
C.	Hussain Doshi Gufa	III.	Maharashtra
D.	Group of monuments, Mahabalipuram	IV.	Tamilnadu

Choose the correct answer from the options given below:

Options :

68019157567. A-II, B-IV, C-I, D-III

68019157568. A-I, B-III, C-II, D-IV

68019157569. A-II, B-III, C-I, D-IV

68019157570. A-II, B-I, C-IV, D-III

Question Number : 36 Question Id : 68019114836 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Match List I with List II

LIST I		LIST II	
A.	Stairs	I.	Key stone
B.	Door	II.	Toothing
C.	Arch	III.	Jamb
D.	Brick work	IV.	Tread

Choose the correct answer from the options given below:

Options :

68019157571. A-IV, B-III, C-I, D-II

68019157572. A-II, B-I, C-III, D-IV

68019157573. A-I, B-III, C-IV, D-II

68019157574. A-III, B-IV, C-II, D-I

Question Number : 37 Question Id : 68019114837 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Give below are two statements :

Statement I : A partition wall is defined as an internal wall whose function is to divide the space within the building.

Statement II : Partition wall could be load bearing or non-load bearing.

In the light of the above statements, choose the ***most appropriate*** answer from the options given below:

Options :

68019157575. Both Statement I and Statement II are correct

68019157576. Both Statement I and Statement II are incorrect

68019157577. Statement I is correct but Statement II is incorrect

68019157578. Statement I is incorrect but Statement II is correct

Question Number : 38 Question Id : 68019114838 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

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

Assertion A : Social integration at work place is necessary.

Reason R : There are many backward classes in society.

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

Options :

68019157579. Both **A** and **R** are true and **R** is the correct explanation of **A**

68019157580. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**

68019157581. **A** is true but **R** is false

68019157582. **A** is false but **R** is true

Question Number : 39 Question Id : 68019114839 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Primary colours are_____.

Options :

68019157583. Red, Blue, Yellow

68019157584. Red, Green, Blue

68019157585. Red, Violet, Yellow

68019157586. Red, Green, Yellow

Question Number : 40 Question Id : 68019114840 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The stairs kept in motion by a revolving drum is known as a _____.

Options :

68019157587. Escalator

68019157588. Lift

68019157589. Elevator

68019157590. Revolving stairs

Question Number : 41 Question Id : 68019114841 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which of the following structure does not have a dome?

Options :

68019157591. Gol Gumbaz

68019157592. Avicii Arena

68019157593. St. Paul's Cathedral

68019157594. The Shard

Question Number : 42 Question Id : 68019114842 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Given below is the famous temple in India. Identify the style of temple architecture adopted in the temple.



Options :

68019157595. Nagara

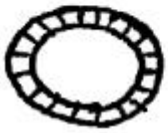
68019157596. Dravidian

68019157597. Vesara

68019157598. Orissan

Question Number : 43 Question Id : 68019114843 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Match List I with List II

LIST I(Plan)		LIST II(Building Name)	
A.		I.	Taj Mahal
B.		II.	Qutub Minar, New Delhi
C.		III.	Matri Mandir, Auroville
D.		IV.	Sanchi Stupa

Choose the correct answer from the options given below:

Options :

68019157599. A-IV, B-II, C-III, D-I

68019157600. A-II, B-III, C-IV, D-I

68019157601. A-III, B-II, C-IV, D-I

68019157602. A-IV, B-III, C-II, D-I

Question Number : 44 Question Id : 68019114844 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The botanical name of "MANGO" tree is

Options :

68019157603. Azadirachita Indica

68019157604. Mangifera Indica

68019157605. Delonux Indica

68019157606. Delonux Regia

Question Number : 45 Question Id : 68019114845 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Scientific study of human body measurements :

Options :

68019157607. Depth Perception

68019157608. Anthrology

68019157609. Axenometry

68019157610. Anthropometry

Question Number : 46 Question Id : 68019114846 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

FAR stands for

Options :

68019157611. Facade Area Ratio

68019157612. Floor Area Ratio

68019157613. Fire Accessible Ramp

68019157614. Fire Arch Ratio

Question Number : 47 Question Id : 68019114847 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

On an engineer scale, 1 cm = 10 m. Identify the representative fraction (R.F.)

Options :

68019157615. 1/100

68019157616. 1/10

68019157617. 1/1000

68019157618. 1/10000

Question Number : 48 Question Id : 68019114848 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Identify the iconic Landmark :



Options :

68019157619. Taipei 101

68019157620. One World Trade Center

68019157621. Sydney Opera House

68019157622. Shanghai World Financial Center

Question Number : 49 Question Id : 68019114849 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Identify the name of the Landmark :



Options :

68019157623. Crystal Palace, London

68019157624. The Louvre, Paris

68019157625. German Pavilion for World exibition, Barcelona

68019157626. Vitra Design Museum, Basel

Question Number : 50 Question Id : 68019114850 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Identify the famous Monument in the given picture.



Options :

68019157627. Chand Baoli

68019157628. Stepped Pyramid

68019157629. Golden Lily Pond

68019157630. Airavates-vara Temple

Question Number : 51 Question Id : 68019114851 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

A man is facing towards East and turns through 45° anti clockwise, again 180° anticlockwise and than turns through 270° clockwise. In which direction is he facing now?

Options :

68019157631. South-East

68019157632. South-West

68019157633. South

68019157634. North-East

Question Number : 52 Question Id : 68019114852 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The 'lightness or darkness' of a colour is defined as :

Options :

68019157635. Hue

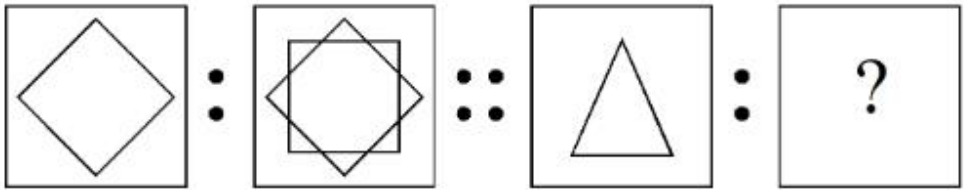
68019157636. Brightless

68019157637. Dullness

68019157638. Value

Question Number : 53 Question Id : 68019114853 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

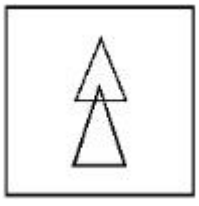
Select a figure amongst the answer figures which will continue the same series or pattern as established by the problem figures.

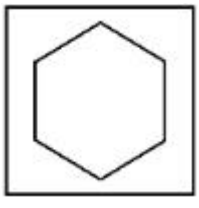


Options :

68019157639. 

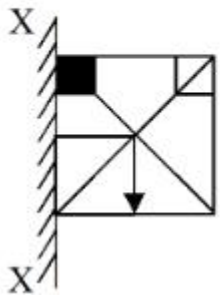
68019157640. 

68019157641. 

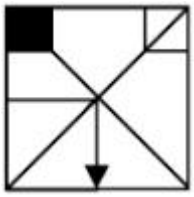
68019157642. 

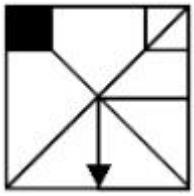
Question Number : 54 Question Id : 68019114854 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

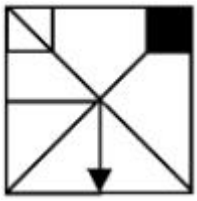
Identify the true mirror image of the figure amongst the answer figures with respect to-X-X

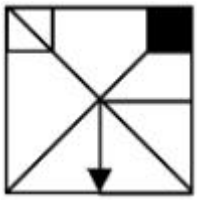


Options :

68019157643. 

68019157644. 

68019157645. 

68019157646. 

Question Number : 55 Question Id : 68019114855 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Identify the mirror image of given word :

PROGRESS

Options :

68019157647. PROGRESS

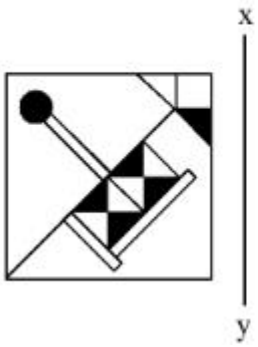
68019157648. ƧSƎЯGOЯ⅁

68019157649. ƧƧƎЯGOЯ⅁

68019157650. ƧƧƎЯGOЯ⅁

Question Number : 56 Question Id : 68019114856 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Identify the correct mirror image of the given figure along x-y axis :



Options :

68019157651. 

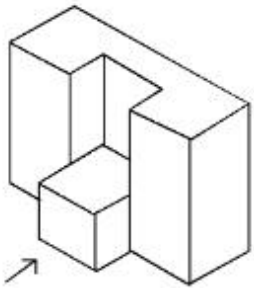
68019157652. 

68019157653. 

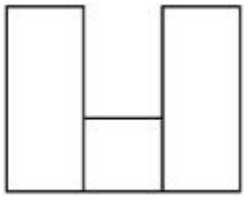
68019157654. 

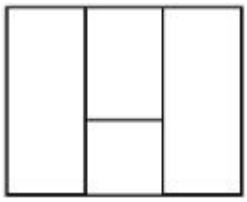
Question Number : 57 Question Id : 68019114857 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

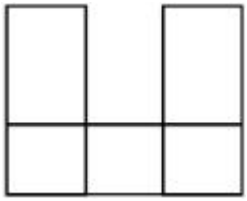
The question figure shows the 3D view of an object. Identify the correct view of the object looking in the direction of arrow.

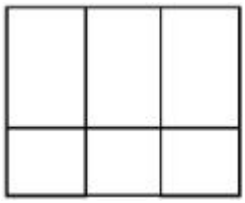


Options :

68019157655. 

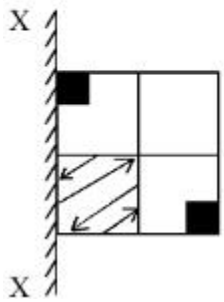
68019157656. 

68019157657. 

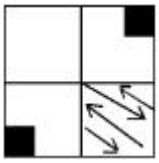
68019157658. 

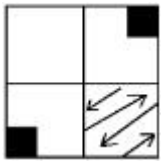
Question Number : 58 Question Id : 68019114858 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

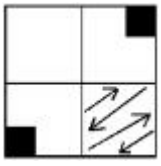
Identify the true mirror image of the figure amongst the answer figures with respect to X-X :



Options :

68019157659. 

68019157660. 

68019157661. 

68019157662. 

Question Number : 59 Question Id : 68019114859 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

'Kuchipudi' is a unique dance from which state ?

Options :

68019157663. Madhya Pradesh

68019157664. Tamil Nadu

68019157665. Kerala

68019157666. Andhra Pradesh

Question Number : 60 Question Id : 68019114860 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which of the below given material is not a plaster type ?

Options :

68019157667. Gypsum

68019157668. Lime

68019157669. Cement

68019157670. MDF

Question Number : 61 Question Id : 68019114861 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who initiated the construction of Qutub-Minar, Delhi?

Options :

68019157671. Muhammad Quli Qutub Shah

68019157672. Muhammad Azam Shah

68019157673. Qutub-Ud-din-Aibak

68019157674. Iltutmish

Question Number : 62 Question Id : 68019114862 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

When is the world Environment Day celebrated?

Options :

68019157675. 5 June

68019157676. 10 July

68019157677. 22 March

68019157678. 15 August

Question Number : 63 Question Id : 68019114863 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Visual weight is associated with :

Options :

68019157679. Emphasis

68019157680. Texture

68019157681. Balance

68019157682. Pattern

Question Number : 64 Question Id : 68019114864 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Lines those branch off of a central point are referred to as :

Options :

68019157683. Rhythm

68019157684. Repetition

68019157685. Radiation

68019157686. Proportion

Question Number : 65 Question Id : 68019114865 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

V7 concept of Chandigarh city is associated with which architect?

Options :

68019157687. Patric Geddes

68019157688. Le Corbusier

68019157689. Frank O Gehri

68019157690. Zaha Hadid

Question Number : 66 Question Id : 68019114866 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who is known as "Father of contemporary architecture" ?

Options :

68019157691. Le Corbusier

68019157692. Louis Sullivan

68019157693. Frank Gehry

68019157694. Norman Foster

Question Number : 67 Question Id : 68019114867 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who designed 'India Gate'?

Options :

68019157695. Edwin Luytens

68019157696. Raj-Rewal

68019157697. George Writtet

68019157698. Norman Foster

Question Number : 68 Question Id : 68019114868 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Who among the following architects has not won the Pritzker prize till 2019?

Options :

68019157699. B.V. Doshi

68019157700. I.M. Pie

68019157701. Arata Isozki

68019157702. Moshe Safdie

Question Number : 69 Question Id : 68019114869 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Terra cotta is a type of earthen work which is processed by :

Options :

68019157703. Burning at high temperature

68019157704. Mixing with lime

68019157705. Compacting with pressure

68019157706. Drying in the Sun

Question Number : 70 Question Id : 68019114870 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Which building material is primarily used as a building material for the Great wall of China?

Options :

68019157707. Timber

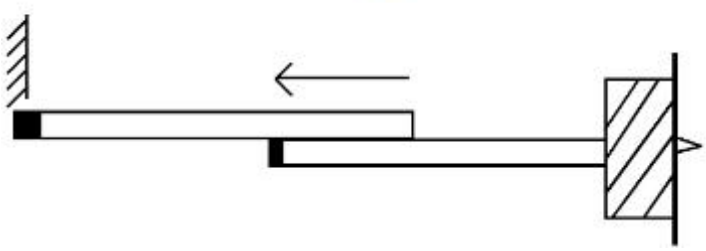
68019157708. Steel

68019157709. Brick

68019157710. Concrete

Question Number : 71 Question Id : 68019114871 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Identify the architectural symbol represented in the given figure.



Options :

68019157711. Window

68019157712. Sliding door

68019157713. Revolving door

68019157714. Rolling shutter

Question Number : 72 Question Id : 68019114872 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Percentage of lime content in ordinary Portland cement is

Options :

1. 30% – 40%

2. 40% – 50%

3. 60% – 70%

4. 70% – 80%

Question Number : 73 Question Id : 68019114873 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Sill Level is associated with

Options :

68019157719. Roof

68019157720. Column

68019157721. Window

68019157722. Staircase

Question Number : 74 Question Id : 68019114874 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

What is the terminology for the vertical portion between each tread of the stairs?

Options :

68019157723. Winder

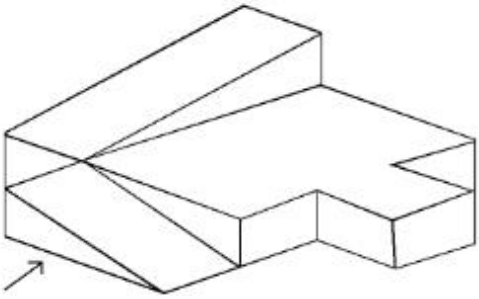
68019157724. Riser

68019157725. Nosing

68019157726. Going

Question Number : 75 Question Id : 68019114875 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

The question figure shows the 3D view of an object. Identify the correct view of the object looking in the direction of arrow :

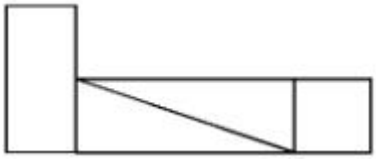


Options :

68019157727. 

68019157728. 

68019157729. 

68019157730. 

Question Number : 76 Question Id : 68019114876 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

Complete the number sequence :

18, 27, 38, 51, ..., 83

Options :

68019157731. 62

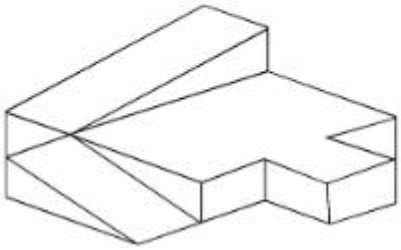
68019157732. 66

68019157733. 64

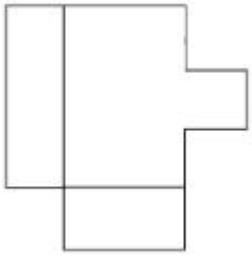
68019157734. 72

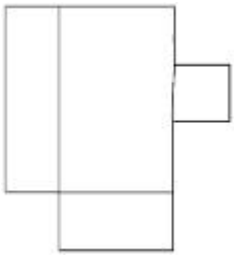
Question Number : 77 Question Id : 68019114877 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

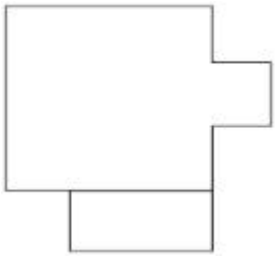
In the question figure a-3-D object is given, Identify the correct top view of the object amongst the answer figures.

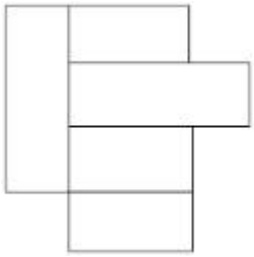


Options :

68019157735. 

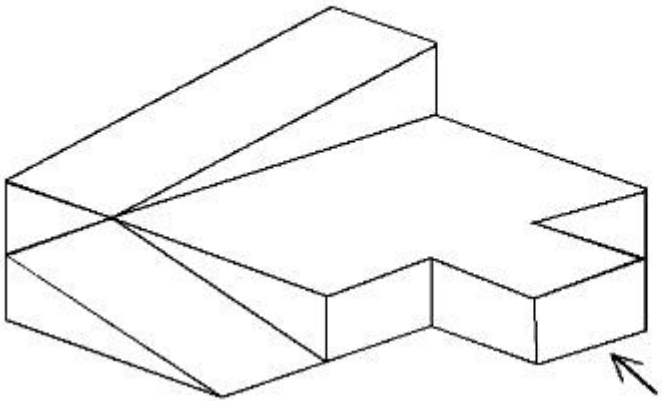
68019157736. 

68019157737. 

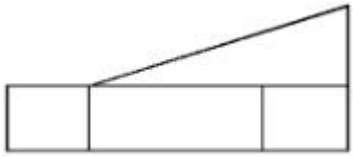
68019157738. 

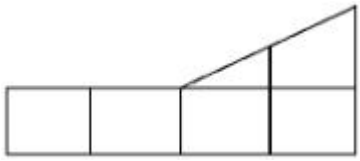
Question Number : 78 Question Id : 68019114878 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

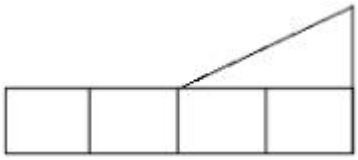
In question figure - 3D object is given, Identify the correct view of the object looking in the direction of the arrow, amongst the answer figures.

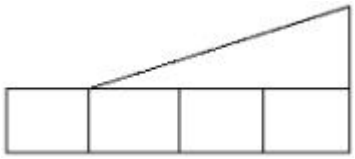


Options :

68019157739. 

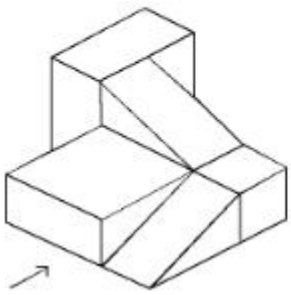
68019157740. 

68019157741. 

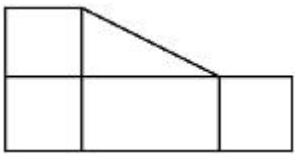
68019157742. 

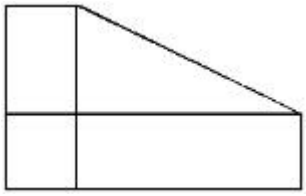
Question Number : 79 Question Id : 68019114879 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

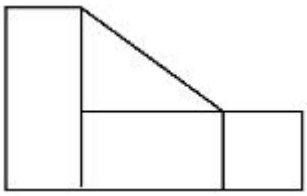
In question figure a 3-D object is given. Identify the correct view of the object looking in the direction of arrow, amongst the answer figures.

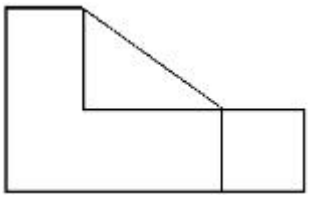


Options :

68019157743. 

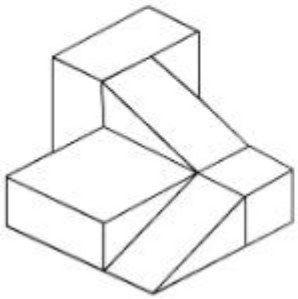
68019157744. 

68019157745. 

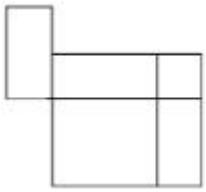
68019157746. 

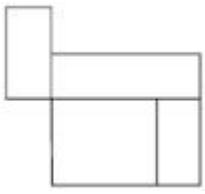
Question Number : 80 Question Id : 68019114880 Question Type : MCQ Correct Marks : 4 Wrong Marks : 1

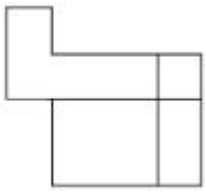
In the question figure a 3-D object is given. Identify the correct top view of the object amongst the answer figures.

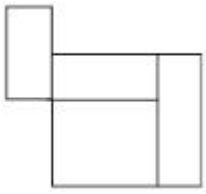


Options :

68019157747. 

68019157748. 

68019157749. 

68019157750. 

Drawing

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

Question Number : 81 Question Id : 68019114881 Question Type : SUBJECTIVE Correct Marks : 50 Wrong Marks : 0

Draw the sketch of the image given below in detail:

Use monochromatic colour rendering techniques, light and shadow to represent its depth and intensity.



Question Number : 82 Question Id : 68019114882 Question Type : SUBJECTIVE Correct Marks : 50 Wrong Marks : 0

Draw G20 Logo with one Alphabet, two numeric, a triangle, a circle, and a rectangle. Use any 3 colours of your choice

OR

Draw sketch of a road in one point perspective. Imagine the road to be a vehicular road with both side footpath having vendors and hawkers around it. Use colours of your choice.