

Question Paper NATA 2021
10th APRIL 2021

Q.1 A Solar Eclipse will take place when

Options :

- a. the sun is between the moon and the earth
- b. the earth is between the moon and the sun
- c. the moon is between the sun and the earth
- d. the moon does not lie on the line joining the sun and the earth

• **Correct Answer : c**

Q.2 What should be the minimum height of a plane mirror required to view the full image of a person who is 6 feet tall?

Options :

- a. 3 feet
- b. 6 feet
- c. 4 feet
- d. 5 feet

• **Correct Answer : a**

Q.3 A jet engine works on the principle of conservation of which of the following?

Options :

- a. Angular momentum
- b. Linear momentum
- c. Energy mass
- d. Mass velocity

• Correct Answer : b

Q.4 What is the cause for twinkling of stars?

Options :

- a. Atmospheric pollution
- b. Atmospheric reflection
- c. Atmospheric refraction
- d. Atmospheric dispersion

• Correct Answer : c

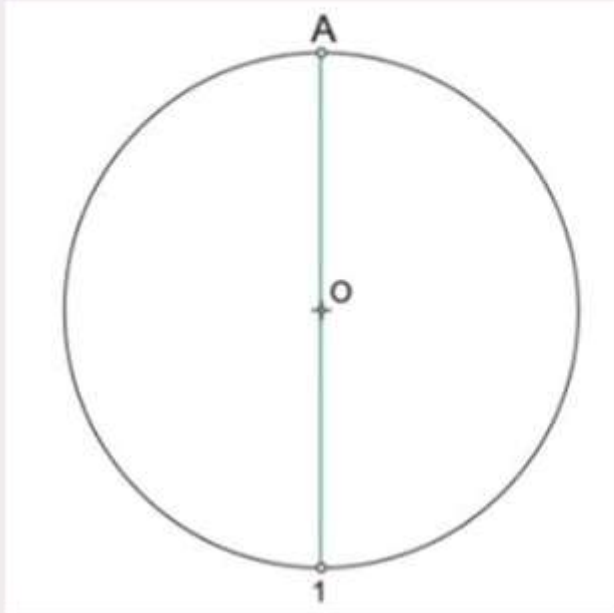
Q.5 The speed of light will be the minimum while passing through which of the following?

Options :

- a. Vacuum
- b. Air
- c. Water
- d. Glass

• Correct Answer : d

Q.6 For a given circle with a center O and radius OA , if two arcs B and C are drawn on the circumference of the circle from 1 by taking the measurement of OA as the radius of the arc, what will be the shape of the triangle obtained by joining the points 1 , B and C ?



Options :

- a. An isosceles triangle
- b. A Scalene triangle
- c. A right angled triangle
- d. An equilateral triangle

• Correct Answer : d

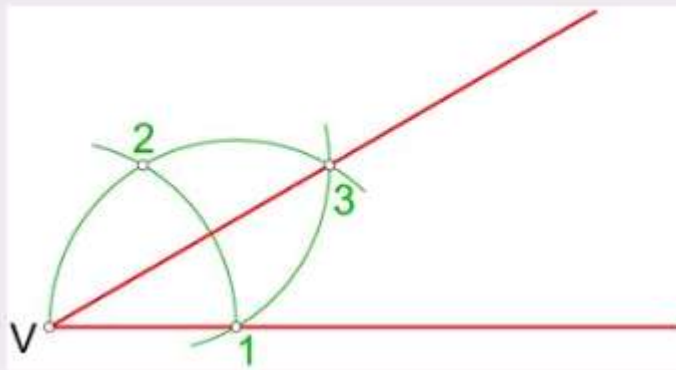
Q.7 When the sum of two angles makes 90° , what are the angles referred to as?

Options :

- a. Complementary angles
- b. Supplementary angles
- c. Acute angles
- d. Obtuse angles

• Correct Answer : a

Q.8 If a straight line is used to connect V 3, what will be the angle formed between the lines V3 and V1?



Options :

- a. 30°
- b. 45°
- c. 60°
- d. 90°

• Correct Answer : a

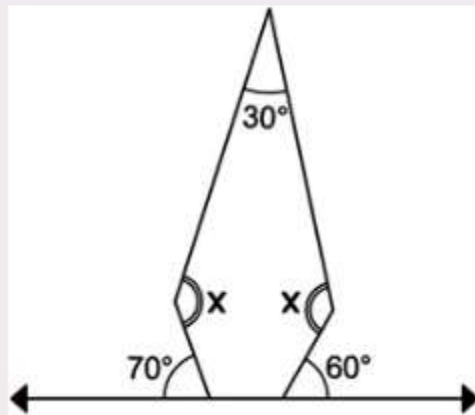
Q.9 Which of the following solids may not be generated by revolving a planar surface along an axis?

Options :

- a. Cylinder
- b. Cone
- c. Prism
- d. Sphere

• Correct Answer : c

Q.10 Find the angle of "X" from the figure given below.



Options :

- a. 110
- b. 120
- c. 140
- d. 160

• Correct Answer : c

Q.11 Replace the underlined word with an answer choice such that the meaning of the sentence does not change.

‘As a free marketer, I hate monopoly of any sort, be it economic, cultural or social.’

Options :

- a. Corruption
- b. Control
- c. Opposition
- d. Optimism

• Correct Answer : b

Q.12 In question below, there is a sentence which is incomplete. The sentence has to be completed by using parts which are labeled P, Q, R and S to produce the correct sentence. Choose the proper sequence of the parts to complete the sentence.

‘**She sat**.....’

P: through the Town Hall Park

Q: which flanked a path running

R: under the boughs

S: of a spreading tamarind tree

Options :

- a. PQSR
- b. RSQP
- c. RSPQ
- d. PRSQ

• Correct Answer : b

Q.13 In sentence given below, a part of the sentence is italicized and underlined. Below are given alternatives to the italicized and underlined part which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer will be Option 'D'.

India gained Independence in the year 1947 at 12am on 15 August

Options :

- a. on 15 August in the year 1947 at 12am
- b. in the year 1960 on 15 August at 12am
- c. at 12am on 15 August in the year 1947
- d. No improvement

• Correct Answer : c

Q.14 In the question below four words printed in **bold** type are given. These are lettered **(A)**, **(B)**, **(C)** and **(D)**. One of the words may be wrongly spelt or inappropriate in the context of the sentence.

Find out the word that is inappropriate to context or wrongly spelt

Options :

- a. To solve a
- b. problem, one needs to have
- c. intelligent and firm
- d. determination

• Correct Answer : c

* Candidates **attempted the question** will be awarded full marks.

Q.15 Select the pair which has same relationship.

GRAIN: SALT

Options :

- a. SHARD: POTTERY
- b. SHRED: WOOD
- c. BLADES: GRASS
- d. CHIP: GLASS

• Correct Answer : d

D-X)1 Section1 Test name

Carefully read the passage given below and provide the answers to the **4 questions** based on the passage.

'Pratik a professional man who had worked in an office for many years had a fearful dream. In it, he found himself in a land where small slug-like animals with slimy tentacles lived on people's bodies. The people tolerated the loathsome creatures because after many years they grew into elephants which then became the nation's system of transport, carrying everyone wherever he wanted to go. Pratik suddenly realised that he himself was covered with these things and he woke up screaming.

In a vivid sequence of pictures this dream dramatized for Pratik what he had never been able to put in to words; he saw himself as letting society feed on his body in his early years so that it would carry him when he retired. He later threw off the "security bug" and took up freelance work.'

Q.16 In his dream Pratik found the loathsome creatures. Where?

Options :

- a. in his village
- b. in his own house
- c. in a different land
- d. in his office

• Correct Answer : c

Q.17 Which one of the following phrases best helps to bring out the precise meaning of 'loathsome creatures'?

Options :

- a. Security bug and slimy tentacles
- b. Fearful dream and slug-like animals
- c. Slimy tentacles and animals
- d. slug-like animals and security bug slug-like

• Correct Answer : c

Q.18 The statement that 'he later threw off the security bug' means that

Options :

- a. Pratik succeeded in overcoming the need for security
- b. Pratik stopped giving much importance to dreams
- c. Pratik started tolerating social victimisation
- d. Pratik killed all the bugs troubled him

• Correct Answer : a

Q.19 Pratik's dream was fearful because

Options :

- a. it brought him face to face with reality
- b. it was full of vivid pictures of snakes
- c. he saw huge elephant in it
- d. in it he saw slimy creatures feeding on people's bodies

• **Correct Answer : a**

D-X)2 Section1 Test name

Carefully read the passage given below and provide the answers to the **4 questions** based on the passage.

Until the end of his first year at school, Vedant retained many of the pleasures and pursuits he had brought with him from home, and he kept an old interest in butterflies and fossils. His grandmother had presented him with a fine bird's eggs cabinet, but he could never bring himself to risk in climbing trees. Once or twice he dissected dead birds from sheer determination to overcome his horror of the operation. Probably it was his envy of those physically unlike himself that brought on a phase during which he drew massive athletes with thick necks and square shoulders. Again he was pitying himself for what he could never be.

Q.20 The reason why Vedant made drawings of athletes was that

Options :

- a. though he admired them, he lacked a fine physique himself
- b. he loved violent exercises
- c. athletics was a passion with him
- d. he had to complete an assignment

• **Correct Answer : a**

Q.21 Vedant dissected dead birds to

Options :

- a. see if he would like to become a doctor
- b. please his grandmother
- c. satisfy his curiosity
- d. overcome the fear of act

• Correct Answer : d

Q.22 Vedant did not want to climb trees because he

Options :

- a. loved to play on the ground
- b. was scared of falling down
- c. disliked trees
- d. thought it was childish

• Correct Answer : b

Q.23 Vedant's early schooling was in some ways like home life because

Options :

- a. he had all his old friends with him
- b. the food and the climate where same as at home
- c. he kept an doing what gave joy and recreation at home
- d. his family visited him often

• Correct Answer : c

D-X)3 Section1 Test name

Carefully read the passage given below and provide the answers to the **4 questions** based on the passage.

The assault on the purity of the environment is the price that we pay for many of the benefits of modern technology. For the advantage of automotive transportation we pay a price in smog-induced diseases; for the powerful effects of new insecticides, we pay a price in dwindling wildlife and disturbances in the relation of living things and their surroundings; for nuclear power, we risk the biological hazards of radiation. By increasing agricultural production with fertilizers, we worsen water pollution.

The highly developed nations of the world are not only the immediate beneficiaries of the good that technology can do; they are also the first victims of environmental diseases that technology breeds. In the past, the environmental effects which accompanied technological progress were restricted to a small and relatively short time. The new hazards are neither local nor brief. Air pollution covers vast areas of continents and radioactive fallout from the nuclear explosion is worldwide. Radioactive pollutants now found on the earth surface will be for generations, and in the case of Carbon-14, for thousands of years.

Q.24 The widespread use of insecticides has

Options :

- a. reduced the number of wild animals
- b. caused imbalance in the relationship between living beings and their environment
- c. eliminated diseases by killing mosquitoes and flies
- d. caused biological hazards

• Correct Answer : b

Q.25 The passage emphasizes that modern technology.

Options :

- a. has benefited highly developed nations
- b. is an unmixed blessing
- c. has produced powerful chemicals
- d. has caused serious hazards to life

• Correct Answer : d

Q.26 According to the passage the increasing use of fertilizers is responsible for

Options :

- a. abundance of food
- b. disturbance in the ecological system
- c. water pollution
- d. increase in diseases

• Correct Answer : c

Q.27 The harmful effects of modern technology are

Options :

- a. widespread but short-lived
- b. widespread and long-lasting
- c. limited and long-lasting
- d. severe but short-lived

• Correct Answer : b

D-X)4 Section1 Test name

Carefully read the passage given below and provide the answers to the **4 questions** based on the passage.

'The casual horrors and real disasters are thrown at the newspaper reader without discrimination. In the contemporary arrangements for circulating the news, an important element, evaluation is always weak and often wanting entirely. There is no point anywhere along the line where someone put his foot down for certain and says, "This is important and that does not amount to row of beans; deserves no one's attention, and should travel the wires no farther". The junk is dressed up to look as meaningful as the real news.'

Q.28 Evaluation of news would imply which of the following:

Options :

- a. less dependence on modern systems of communication
- b. more careful analysis of each news story and its value
- c. separating beans from junk
- d. discriminating horrors from disasters

• Correct Answer : b

Q.29 The writer of the above passage

Options :

- a. seems to be happy with the contemporary arrangements for circulating news
- b. shocked by the casual stories about horrors and disasters reported in the newspapers
- c. wants better evaluation of news before publication
- d. wants to put his foot down on news stories

• Correct Answer : c

Q.30 In the above passage, the phrase "amounts to a row of beans" means that the news

Options :

- a. is weak and often wanting entirely
- b. deserves no one's attention
- c. should travel the wires
- d. is junk dressed up as real news

• Correct Answer : b

Q.31 Newspapers lack a sense of discrimination because

Options :

- a. they do not separate the real news from mere sensationalism
- b. they have to accept whatever is received on the wires
- c. limited manpower makes serious evolution impossible
- d. people don't see the difference between 'junk' and 'real' news

• Correct Answer : a

D-X)5 Section1 Test name

Carefully read the passage given below and provide the answers to the **4 questions** based on the passage.

'Many sociologists have argued that there is a functional relationship between education and economic system. They point to the fact that mass formal education began in industrial society. They note that the expansion of the economies of industrial societies is accompanied by a corresponding expansion of their educational systems. They explain this correspondence in terms of the needs of industry for skilled and trained manpower, needs which are met by the educational system. Thus, the provision of mass elementary education in Britain in 1870 can be seen as a response to the needs of industry for a literate and numerate workforce at a time when industrial processes were becoming more complex and the demand for technical skills was steadily growing.'

Q.32 The industry needs a literate work-force because

Options :

- a. its expansion needs sound learning
- b. it relies heavily on expertise
- c. it promotes a competitive spirit
- d. its operations need intricate technical knowledge

• Correct Answer : d

Q.33 The author argues that

Options :

- a. formal education can be traced to industrial society
- b. industrial society is responsible for expansion of education at mass level
- c. industrial society gave rise to vocational education
- d. industrial society changed the pattern of education

• Correct Answer : a

Q.34 The observation of the Sociologists are based on a study of

Options :

- a. the statistical data available in a historical context
- b. economic system of the 19th century
- c. the correlation between industry and education in a historical context
- d. growth of industry in the 19th century

• Correct Answer : d

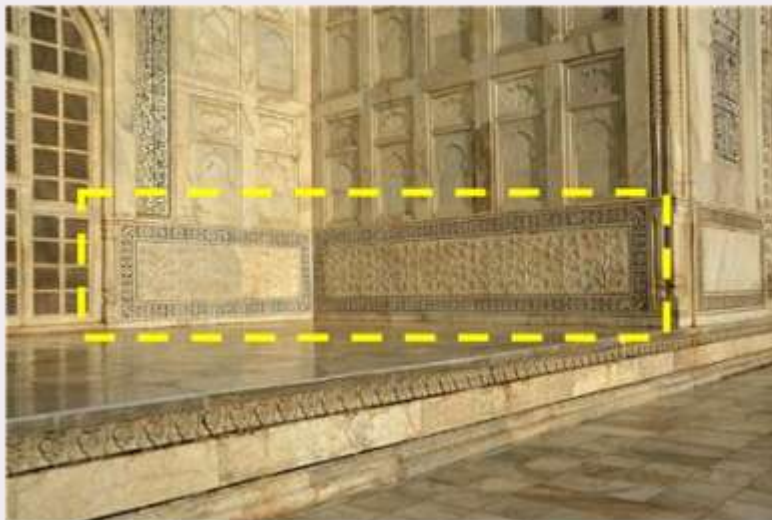
Q.35 The Sociologists referred to it in the passage say that the relationship between industry and elementary education was one

Options :

- a. based on mutual need
- b. based entirely on the need of the industry
- c. based entirely on economic need
- d. based on some inexplicable historical forces

• Correct Answer : b

Q.36 The highlighted area in the image of the Taj Mahal below is given a decorative treatment, different from that for the upper part of the wall. What is the architectural terminology for the same?

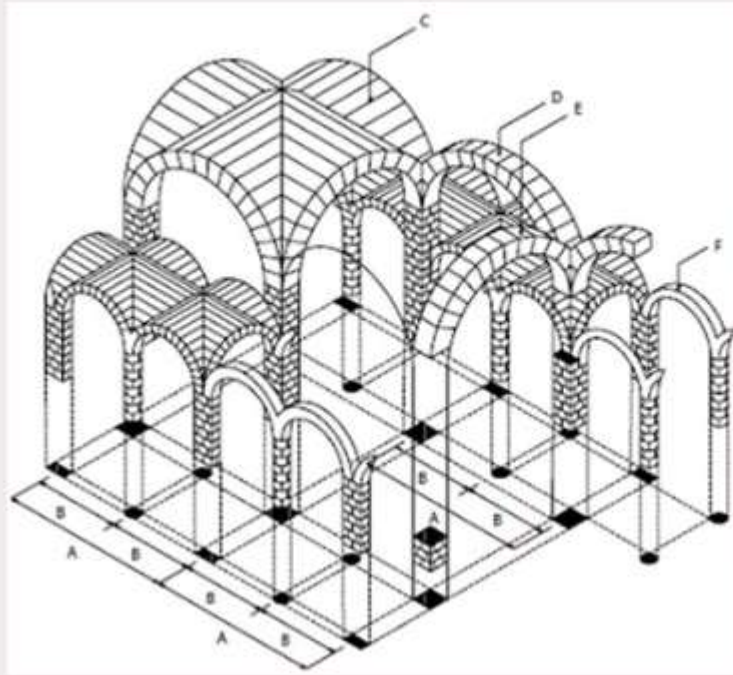


Options :

- a. Skirting
- b. Tracery
- c. Plinth
- d. Dado

• Correct Answer : d

Q.37 Identify the kind of roofing system used in the structure below.



Options :

- a. Dome
- b. Vault
- c. Shell
- d. Arcade

• Correct Answer : b

Q.38 The set of images given below indicate a functional and structural element that protrudes from the plane of a sloping roof surface.

What is the correct terminology for this element?



Options :

- a. Bay window
- b. Hipped window
- c. Dormer window
- d. Clerestory window

• Correct Answer : c

Q.39 The image of the vernacular dwelling given below displays an architecture that is responsive to tropical climate and context. In which tropical country can this type of dwelling be found?



Options :

- a. Suriname
- b. Indonesia
- c. Ecuador
- d. Jamaica

• Correct Answer : b

Q.40 To which cultural aesthetic and landscape do the elements such as Tea house, dry landscape garden, 'Treasure tower' pagoda, 'Drum' bridge, trees, water and rocks attributed?

Options :

- a. Japanese
- b. Vietnamese
- c. Taiwanese
- d. Mongolian

• Correct Answer : a

Q.41 Which of the following forts famous for its water management has been nominated and submitted by The Government of India in the year 2020 for its inclusion in World Heritage List?

Options :

- a. Golconda Fort
- b. Gwalior Fort
- c. Mehrangard Fort
- d. Jaigarh Fort

• Correct Answer : a

Q.42 The south-west monsoon contributes of the total rain in India.

Options :

- a. 86%
- b. 50%
- c. 22%
- d. 70%

• Correct Answer : a

Q.43 Which of the following measures are effective for soil conservation in India?

- (i) Avoiding crop rotation
- (ii) Afforestation
- (iii) Encouraging the use of chemical fertilizers
- (iv) Limiting shifting cultivation

Options :

- a. (i) and (ii)
- b. (ii) and (iv)
- c. (iii) and (iv)
- d. (i), (ii), and (iii)

• Correct Answer : b

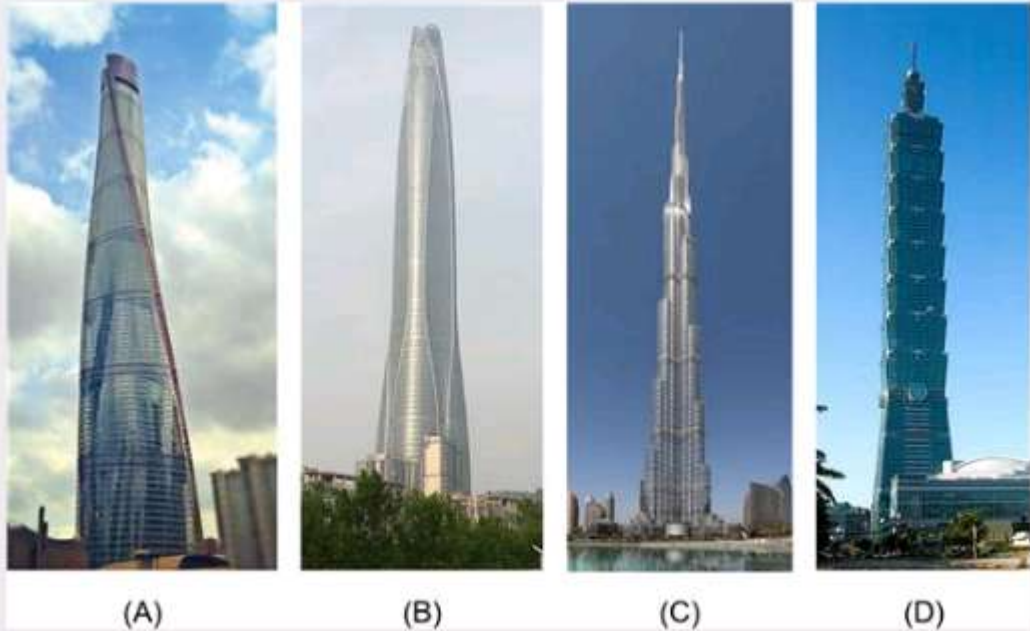
Q.44 Which is the oldest monument from the list given below?

Options :

- a. Qutb Minar, Delhi
- b. Ajanta and Ellora Caves
- c. Shore temple, Mahabalipuram
- d. Humayun's Tomb, Delhi

• Correct Answer : b

Q.45 Identify the tallest building from the set of pictures given below.



Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : c

Q.46 Which of the following states in India have the most forest cover?

Options :

- a. Maharashtra
- b. Madhya Pradesh
- c. Kerala
- d. Arunachal Pradesh

• Correct Answer : d

Q.47 Which event is celebrated on 22nd March every year?

Options :

- a. World Water Day
- b. World Environment Day
- c. World Yoga Day
- d. World Architecture Day

• Correct Answer : a

Q.48 Which number replaces the question mark?

$$\begin{array}{l} \text{🔪} \times \text{🔪} + \text{☀️} = 14 \\ \text{☀️} + \text{☀️} + \text{🚚} = 17 \\ \text{🔪} \times \text{☀️} + \text{🚚} = ? \end{array}$$

Options :

- a. 11
- b. 22
- c. 33
- d. 44

• Correct Answer : b

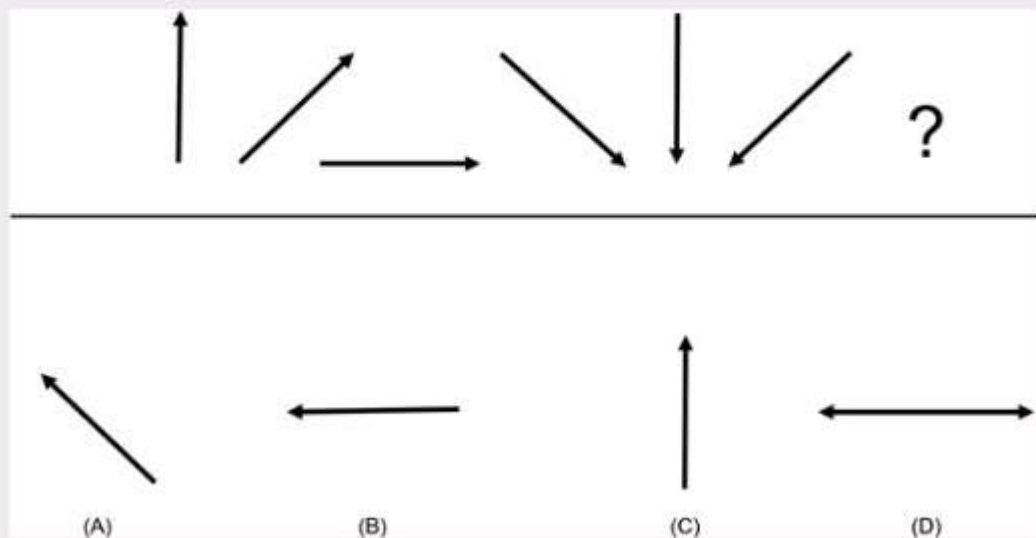
Q.49 A four-person crew from Super Colors is painting Mr. Ranjith's house. Manu is painting the front of the house. Raju is in the alley behind the house painting the back. Jack is painting the window frames on the north side, Shanu is on the south. If Manu switches places with Jack, and Jack then switches places with Shanu, where is Shanu?

Options :

- a. in the alley behind the house
- b. on the north side of the house
- c. in front of the house
- d. on the south side of the house

• Correct Answer : c

Q.50 Look carefully at the sequence of arrows to find the pattern. Which arrow replaces the question mark?



Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : b

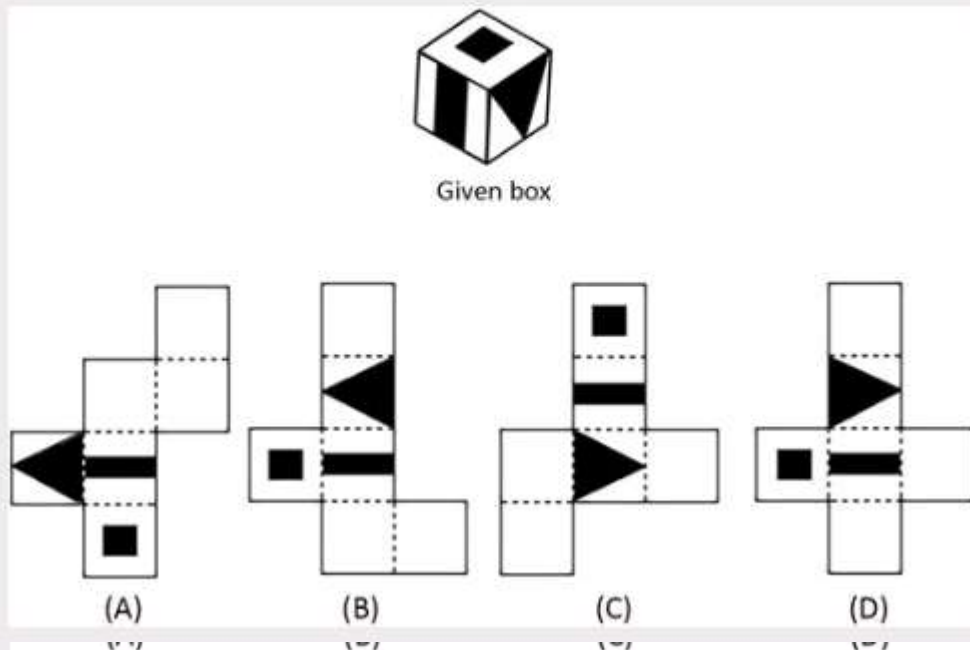
Q.51 An *Informal Gathering* occurs when a group of people get together in a casual, relaxed manner. Which situation below is the best example of an *Informal Gathering*?

Options :

- a. A debating club meets on the first Sunday morning of every month.
- b. After finding out about his salary raise, Jai and a few colleagues go out for a quick dinner after work.
- c. Meena sends out 10 invitations for a bachelorette party she is giving for her elder sister.
- d. Whenever she eats at a Chinese restaurant, Roop seems to run into Divya.

• Correct Answer : b

Q.52 If the given box is unfolded into which of the following answer choices given would it unfold as?



Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : d

Q.53 The visuals of the architectural elements given below belong to which style of architecture in the west?

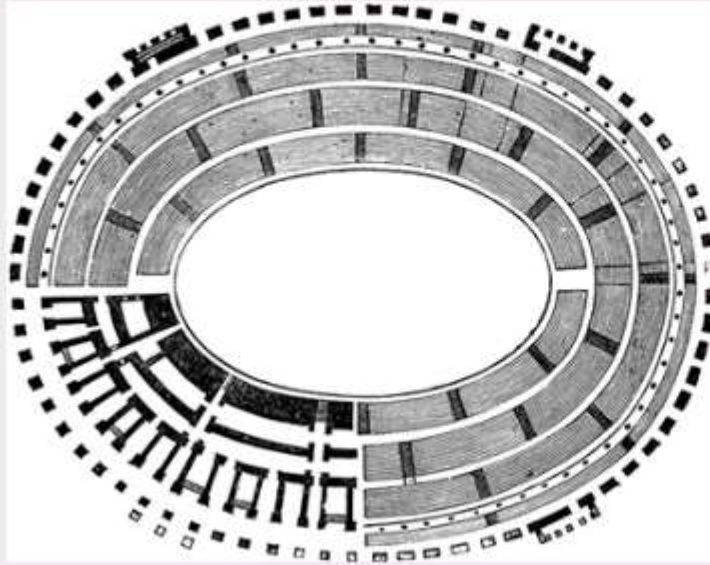


Options :

- a. Renaissance style
- b. Victorian style
- c. Gothic style
- d. Classical style

• Correct Answer : c

Q.54 Identify the given plan of a classical building, a building which was erected for the purposes of mass scale entertainment.



Options :

- a. Greek Amphitheatre
- b. Roman Colosseum
- c. Roman Circus
- d. Greek Agora

• Correct Answer : b

Q.55 The given painting belongs to **De Stijl**, meaning '**The Style**', a modern art movement developed in the Netherlands in the early twentieth century, the art movement influenced modern architecture as well. Choose the correct interior image that belongs to the particular style - **De Stijl**.



Given painting



(A)



(B)



(C)



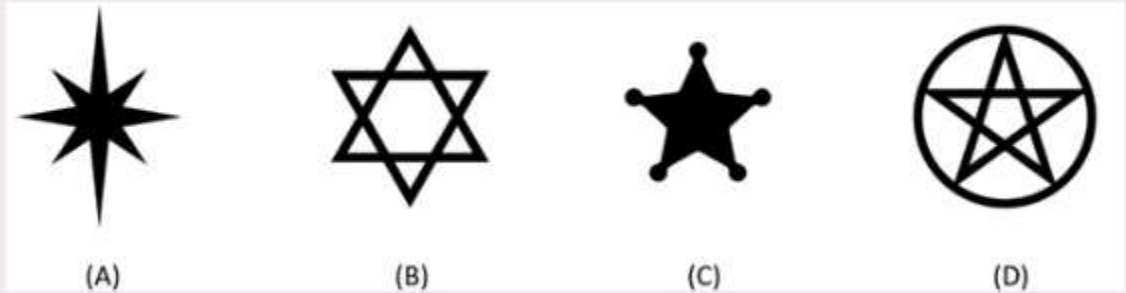
(D)

Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : b

Q.56 Which of the following symbols does not fall under a spiritual category?

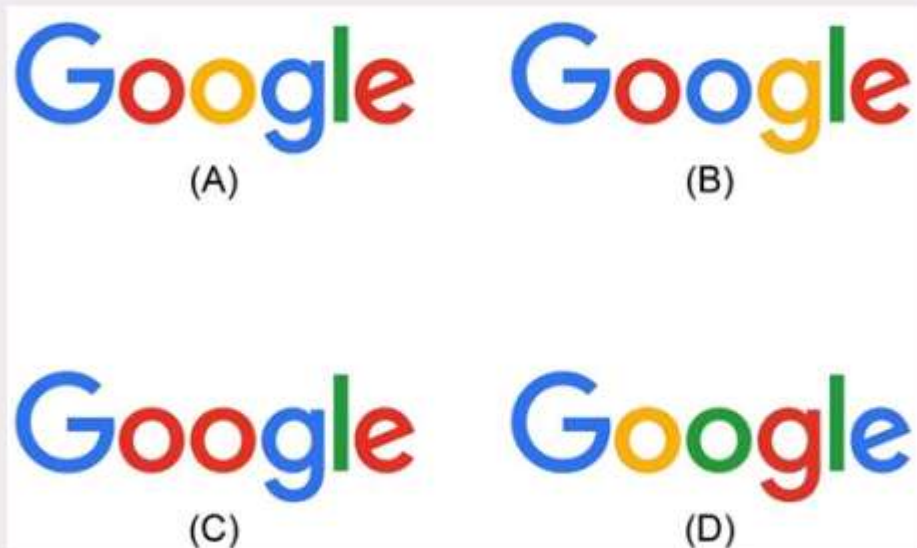


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : c

Q.57 Identify the correct colour scheme that is used in the current Google logo design.

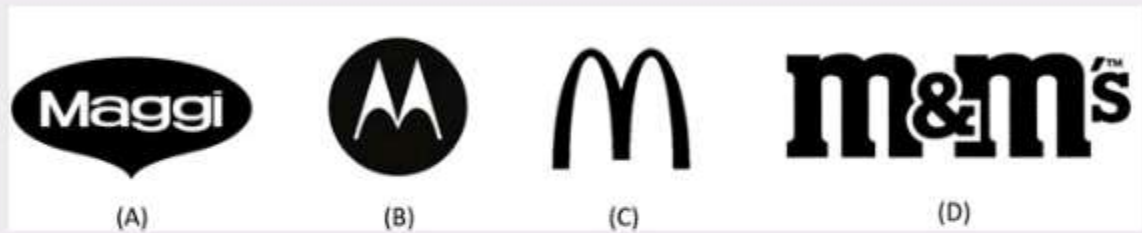


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : a

Q.58 Look carefully at the different brand logos and identify the odd brand out

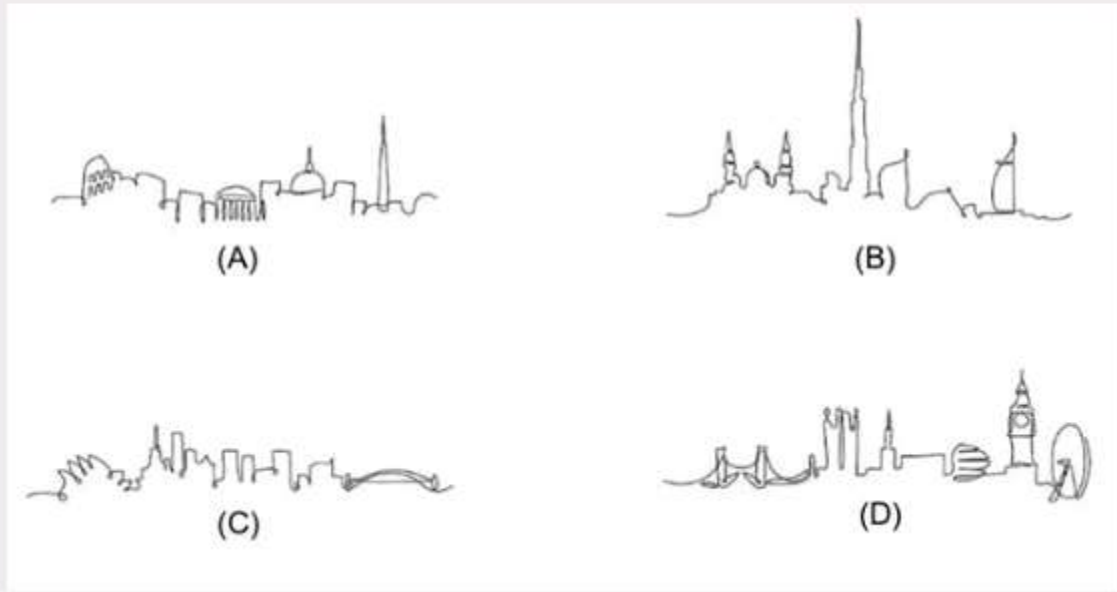


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : b

Q.59 The given images below are single line sketches of various cities in the world depicting their famous landmarks. Identify which is the appropriate skyline of Sydney in Australia

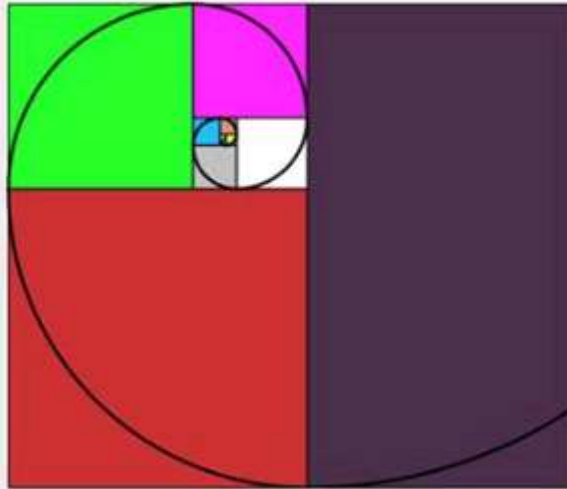


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : c

Q.60 What does the diagram given below represent?



Options :

- a. Rule of Thirds
- b. Fibonacci Series
- c. Diagonal method
- d. Random Sequence

• Correct Answer : b

Q.61 Which among the following brand logos is the odd one out?

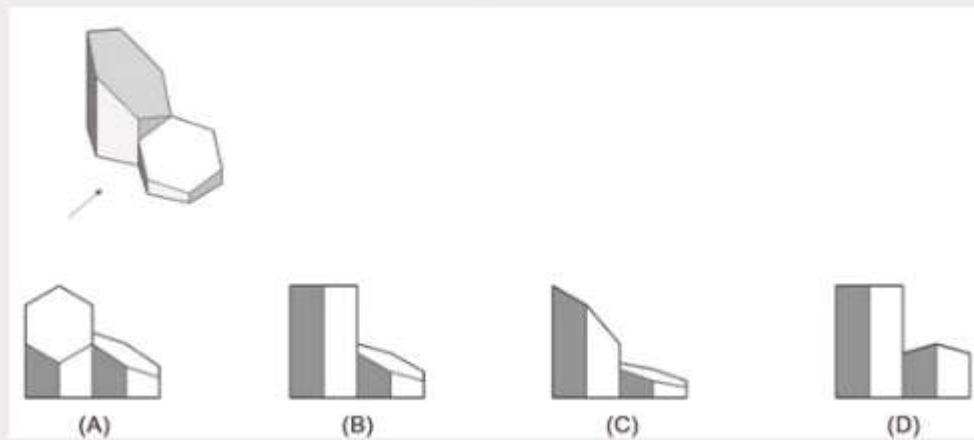


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : c

Q.62 Identify the correct side view for the given 3D volume.

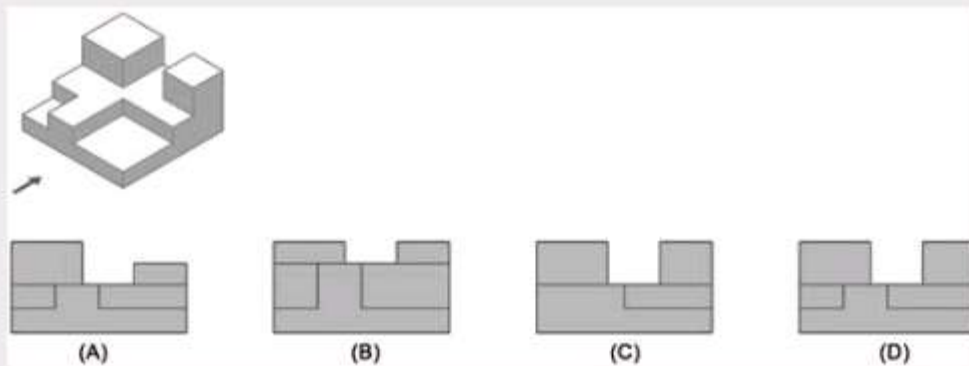


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : c

Q.63 Identify the correct side elevation view for the given 3D object from the view point of the given arrow.

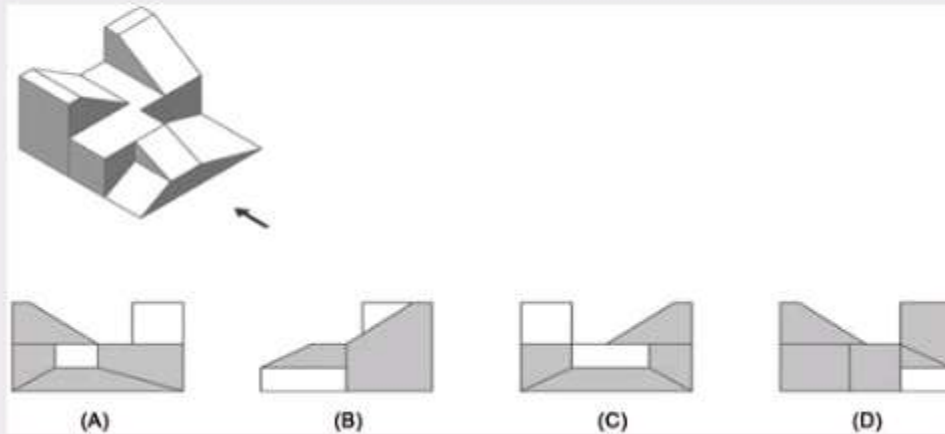


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : d

Q.64 Identify the correct side elevation view for the given 3D object from the view point of the given arrow.

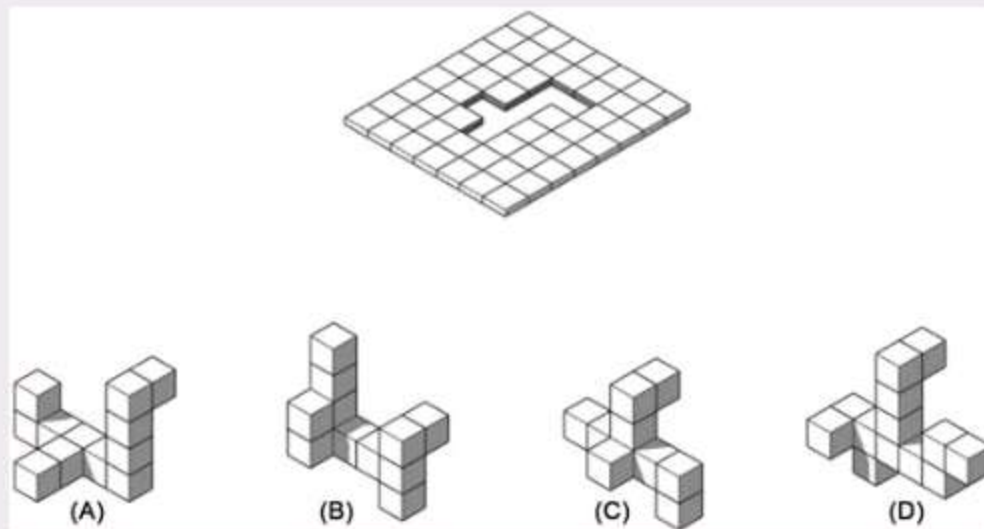


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : a

Q.65 Which of the given three dimensional compositions given below can pass through the cut out panel?



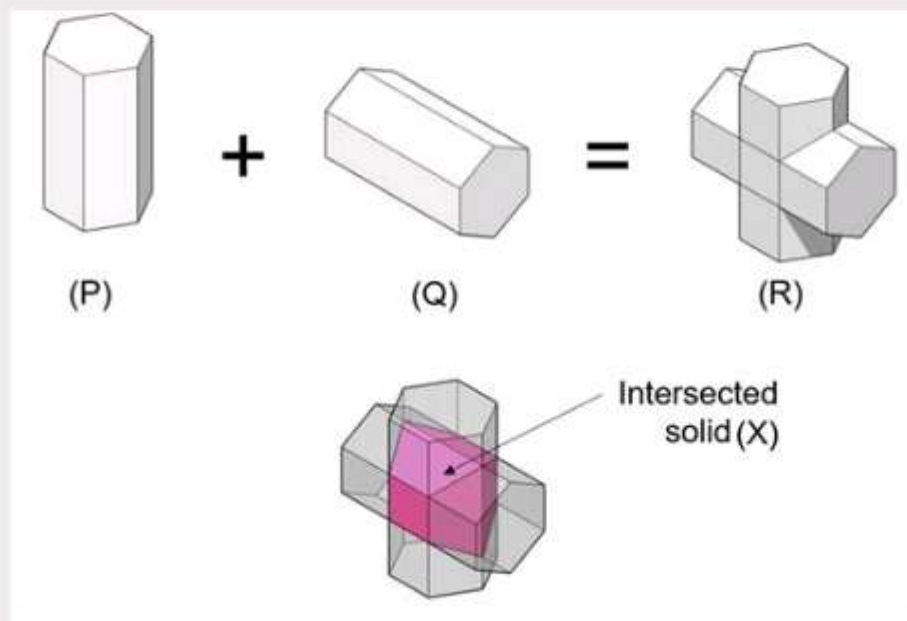
Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : d

Q.66 If solids (P) and (Q) are combined to form solid (R) there will be a new solid (X) is generated due to the intersection (P) and (Q) as represented in highlighted colour. How many surfaces does this new solid have?

Assume solids (P) and (Q) are identical regular hexagon with six sides.

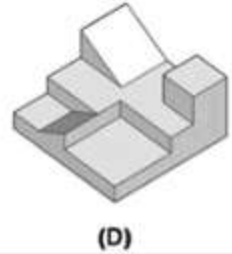
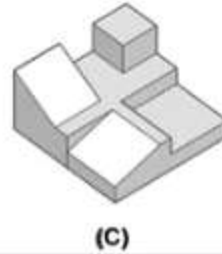
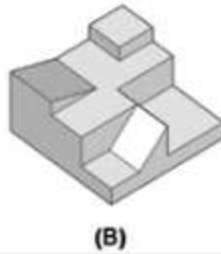
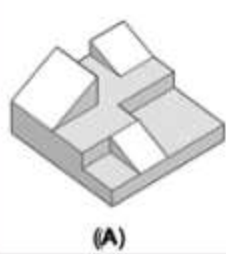


Options :

- a. 6 SIDES
- b. 8 SIDES
- c. 10 SIDES
- d. 12 SIDES

• Correct Answer : c

Q.67 The side view belongs to which of the 3D objects given below?

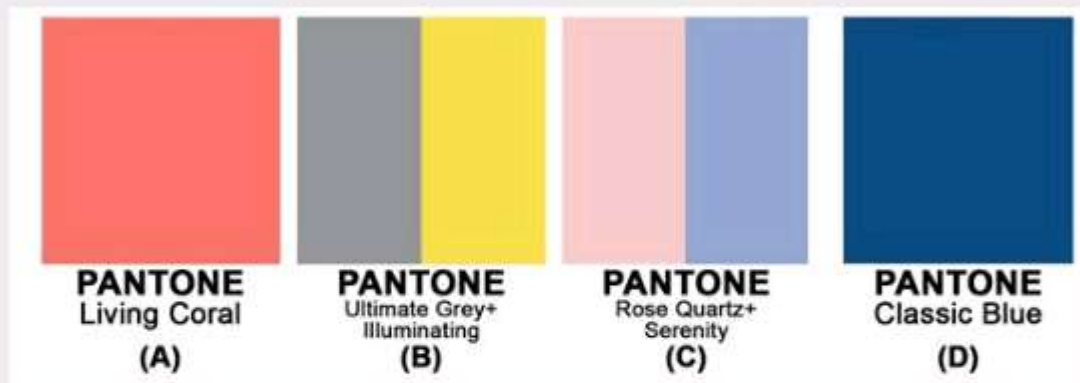


Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : b

Q.68 Choose the Pantone colour(s) of the year 2021 from the given palette below



Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : b

Q.69 Identify the colour TEAL from the options given below:



Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : b

Q.70 What is the colour scheme used in the given logo of a food brand?



Options :

- a. Secondary colour scheme
- b. Analogous colour scheme
- c. Split complementary colour scheme
- d. Triadic colour scheme

• Correct Answer : d

Q.71 Choose the **two** most important visual principles in the given 2-dimensional black and white composition.



Options :

- a. Intricacy
- b. Rhythm
- c. Hierarchy
- d. Focal point
- e. Order
- f. Flow
- g. Repetition
- h. Continuity

• **Correct Answer :** Focal Point, Repetition

Q.72 Choose the **two** most important visual principles in the given 2-dimensional black and white composition



Options :

- a. Repetition
- b. Parallelism
- c. Vibration
- d. Continuity
- e. Intricacy
- f. Flow
- g. Focal point
- h. Datum

• **Correct Answer :** Parallelism, Flow

Q.73 Choose the **two** most important visual principles in the given 2-dimensional black and white composition



Options :

- a. Paradigm shift
- b. Focal point
- c. Contrast
- d. Symmetry
- e. Repetition
- f. Hierarchy
- g. Flow
- h. Direction

• **Correct Answer :** Symmetry, Repetition

Q.74 Choose from the given sets of paintings, one that does not fall under the art movement of "Surrealism"?



(A)



(B)



(C)



(D)

Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• **Correct Answer :** c

Q.75 ACTION PAINTING is best depicted by which of the following paintings?



(A)



(B)



(C)



(D)

Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : c

Q.76 Raja Ravi Varma's art are the best examples of the fusion of European academic art with a purely Indian sensibility and iconography. Identify the correct artwork by the famous painter Raja Ravi Varma from the options given below.



Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : c

Q.77 Which of the given abstract artwork best depicts the emotion of JOY / OPTIMISM?



(A)



(B)



(C)



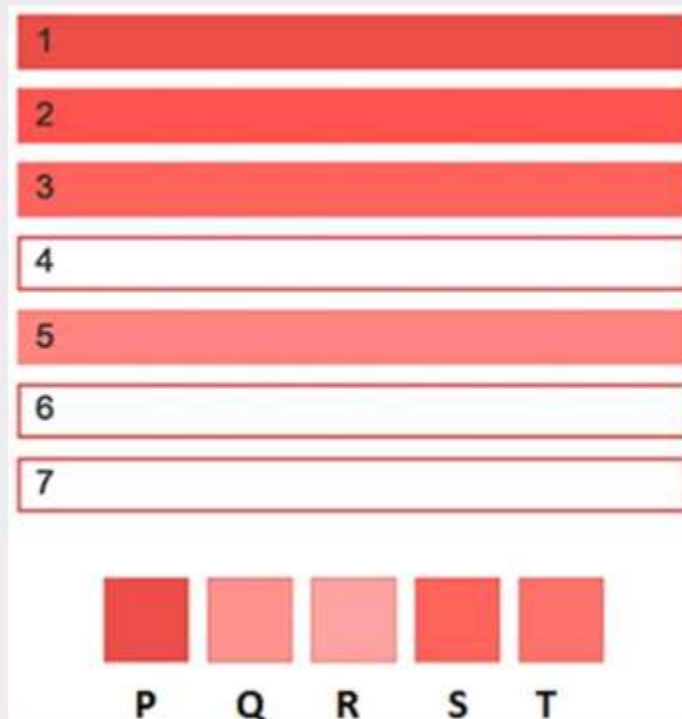
(D)

Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : b

Q.78 Identify the hues given below which would find the correct fit in rows 4, 6 and 7 in that order.



Options :

- a. P, T, Q
- b. T, Q, R
- c. P, Q, R
- d. S, Q, R

• Correct Answer : b

Q.79 John's mother has 4 children, one child is named April, another child is named May, another child is named June. What is name of the fourth child?

- **Correct Answer :** John

Q.80 If an electric train is moving north at 100mph and a wind is blowing to the west at 10mph, which direction does the smoke blow?

- **Correct Answer :** No direction

Q.81 Turn me on my side and I am everything. Cut me in half and I am nothing. What am I?

- **Correct Answer :** Number 8

Q.82 A driver needs to pass under a bridge, but his truck is one inch too tall. However despite this issue, the driver finds a way to continue further. How?

- **Correct Answer :** Walking

Q.83 King Akbar sentenced a man to the death for some crime he had committed. Akbar known for his kindness told the culprit that he may choose his own method to die. The culprit was clever and said something that saved him from death.

What method do you think he must have chosen for his death?

- **Correct Answer :** Old age

Q.84 A family had a chicken coop for their one dozen, egg producing hens. Late one night, a terrible storm came through their area and killed all but eight chickens. How many chickens did the family have in the next morning?

- **Correct Answer :** 12

Q.85 A murderer is condemned to death. He must choose between three rooms after his sentence is passed. The first is full of raging fire. The second is full of assassins with loaded guns. The third is full of lions that haven't eaten in three months.

Which room should he choose?

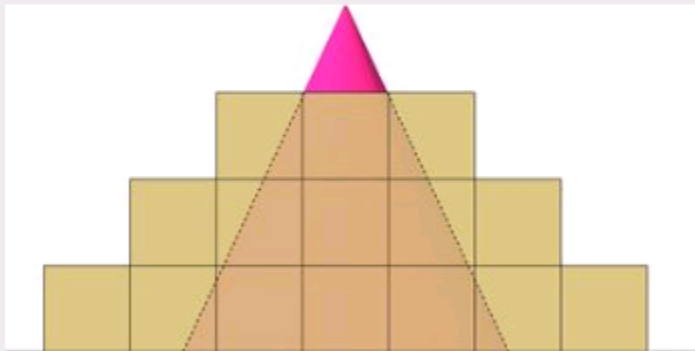
- **Correct Answer :** Third room

Q.86 In which of the following sports are the shoes made of metal?

Soccer, Athletics, Horse racing, Basketball, Tennis

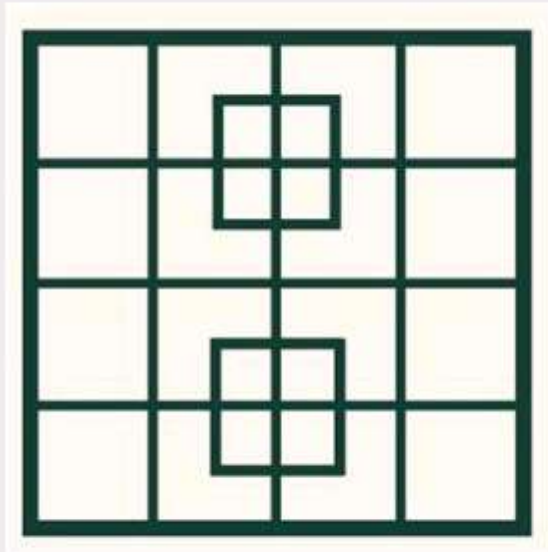
- **Correct Answer :** Horse racing

Q.87 The figure given below is the front elevation of a square pyramid made of 83 cubes of size 10 feet x 10 feet. There is a right angled cone inserted into the pyramid composition, the height of which is 4 times the height of a single cube and with a base of 38 feet diameter. Find the number of cubes which have surfaces overlapping with volume of the cone.



- **Correct Answer :** 35

Q.88 How many total squares can you find in the image?



- Correct Answer : 40

Q.89 In a pond, there are some flowers with some bees hovering over them. How many flowers and bees are there if both the following statements are true: 1. If each bee lands on a flower, one bee doesn't get a flower? 2. If two bees share each flower, there is one flower left out.

Enter the number of bees and flowers separately

- Correct Answer : 4 bees 3 flowers

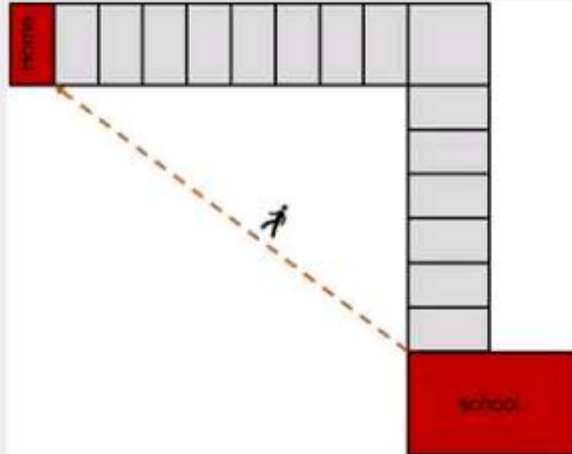
Q.90 A nonstop train leaves Mumbai for Pune at 60 kmph. Another nonstop train leaves Pune for Mumbai at 40 kmph.

How far apart are the trains 1 hour before they pass each other?

- Correct Answer : 100 km

Q.91 Jack leaves school by walk to go to his home passing many building units. If Jack walks along the depicted path, what is the distance that he has walked?

Assume the width of building as 1 unit and length of the building as 2 units.



- **Correct Answer :** 10 units/ 10 buildings

Q.92 What is the percentage increase in the area of a rectangle, if each of its sides is increased by 20%?

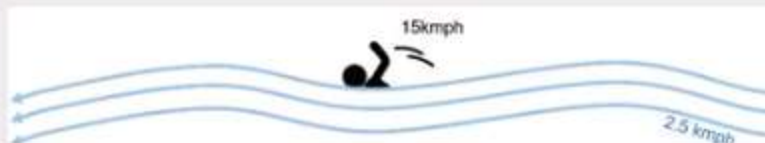
- **Correct Answer :** 44%

Q.93 Find out the wrong number in the series.

15, 16, 34, 104, 424, 2125, 12756

- **Correct Answer :** 104

Q.94 A man's swimming speed with the current is 15 km/hr and the speed of the current is 2.5 km/hr. The man's speed against the current is



- **Correct Answer :** 10 km/hr

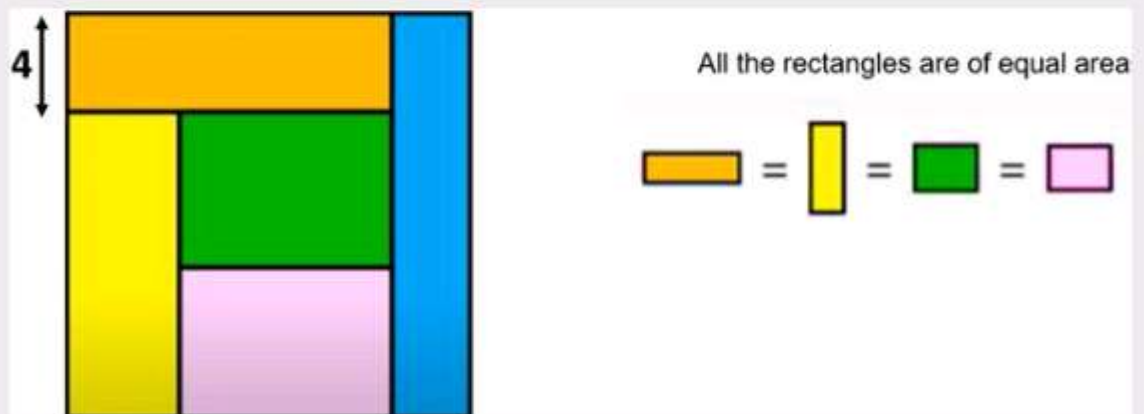
Q.95 How many times do the both the hands of a clock coincide in a day, considering a day is 24 hours?

- Correct Answer : 22

Q.96 A farmer travelled a distance of 61 km in 9 hours. He travelled partly on foot @ 4 km/hr and partly on bicycle @ 9 km/hr. What is the distance (km) travelled on foot?

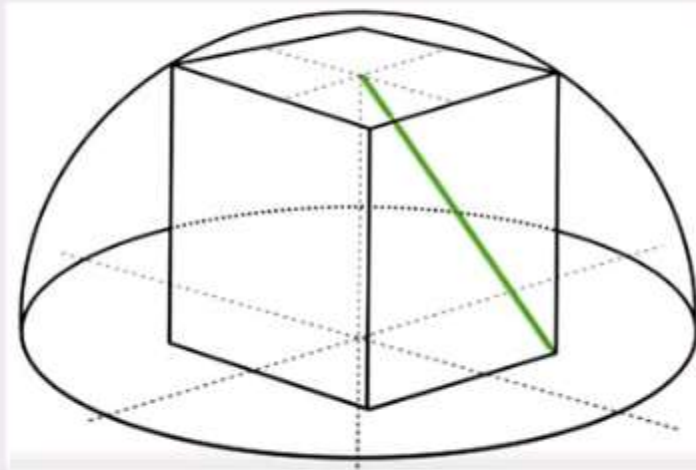
- Correct Answer : 16

Q.97 Find the area of the Square given below, which is made up of 5 different rectangles all of equal areas. One of the sides of the rectangle is given as 4.



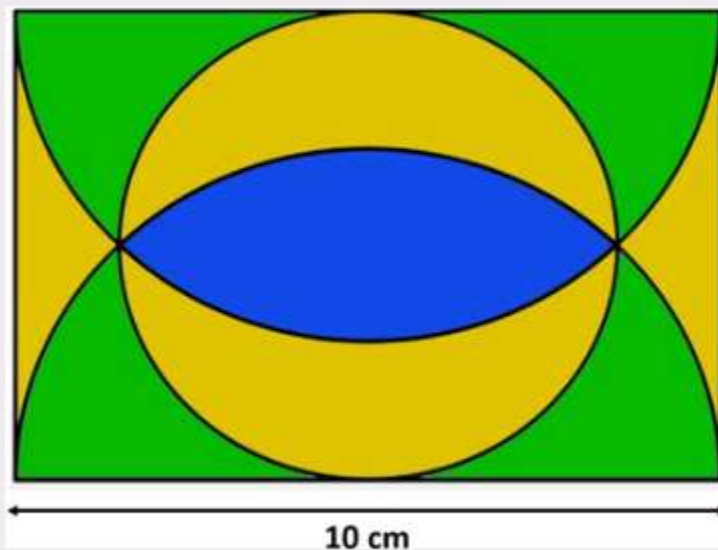
- Correct Answer : 256

Q.98 In the given figure a cube is inserted within a hemisphere such that the top four corners of the cube touch the inner surface of the hemisphere. Find the length of the green line which connects between the top center and bottom corner of the cube, if the radius of the hemisphere is 10cm.



- Correct Answer : 10 cm

Q.99 For the given tile pattern calculate the area shaded in BLUE colour if one of the length of the tile is 10 cm.



- Correct Answer : $25\pi - 25$ or 14.27cm

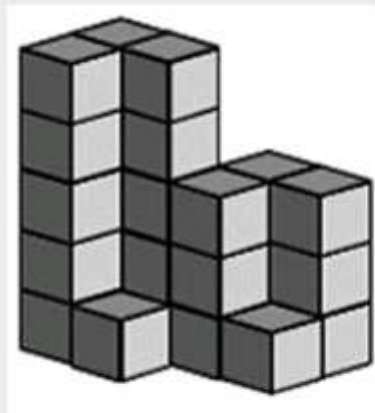
Q.100 A baby's bath should be at a temperature of 37°C . The bath already contains 10kg of water at 15°C . Approximately how much hot water with a temperature of 50°C , should be added to achieve the desired temperature?

- Correct Answer : 16.9 kg or 17 kg

Q.101 If you are running towards a plane mirror at a speed of 10cm/s, at what speed does your reflection approach you?

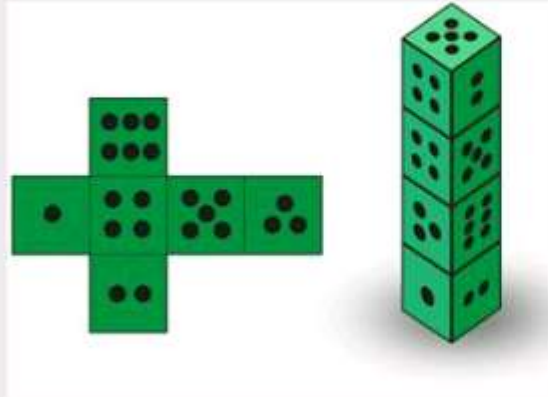
- Correct Answer : 20 cm/s

Q.102 How many blocks make the shape below?



- Correct Answer : 26

Q.103 The figure below shows an unfolded pattern of a die. If four such identical dice are stacked one on top of another, as shown on the right, what is the sum of the numbers appearing on the faces which are parallel to the ground?



• Correct Answer : 27

Q.104 Locate the hidden teddy bear without bow and identify the segment in which located; for example P/ 2, R/4, and so on

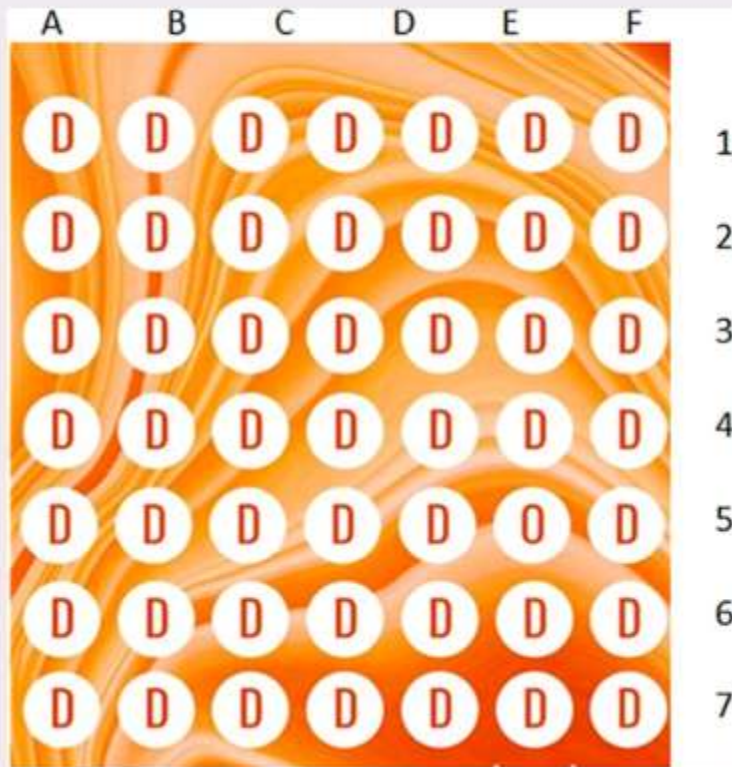
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P	Q	R	S	
				1
				2
				3
				4

- Correct Answer : S/4

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Q.105 Locate the odd image and identify the segment in which located; for example A/1, E/5, and so on



- Correct Answer : F/5

* Candidates attempted the question will be awarded full marks.

Q.106 Please indicate the five most important visual design principles and elements used by Italian Renaissance painter Giovanni Bellini in his work of Madonna of the Meadow.



Options :

- a. Texture
- b. Scale
- c. Symmetry
- d. Balance
- e. Rhythm
- f. Repetition
- g. Direction
- h. Form

• **Correct Answer :** Texture, Scale, Balance

Q.107 Please indicate the five most important visual design elements / principles used in the three dimensional metal sculpture.



Options :

- a. Hierarchy,
- b. Balance
- c. Dynamism
- d. Delicateness
- e. Unstable
- f. Direction
- g. Form
- h. Distortion

• **Correct Answer :** Balance, Dynamism, Direction, Form

Q.108 Below is an art work by El Lissitzky, a Russian painter whose works are greatly influenced by Bauhaus and Constructivist movements. Please indicate the five most important visual design elements / principles used in the art work given below.



Options :

- a. Stability
- b. Minimalism
- c. Intricacy
- d. Asymmetry
- e. Depth
- f. Pure forms
- g. Convergence
- h. Delicate

• **Correct Answer :** Minimalism, Asymmetry, Depth, Pure forms

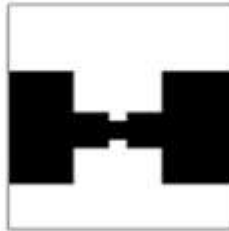
Q.109 Choose from the options below, the composition that best relates to the given composition.



Given composition



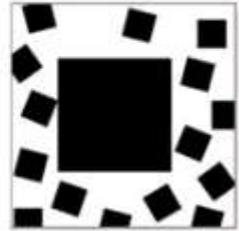
(A)



(B)



(C)



(D)

Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : d

Q.110 Choose from the given options below the composition that best relates to the given composition.



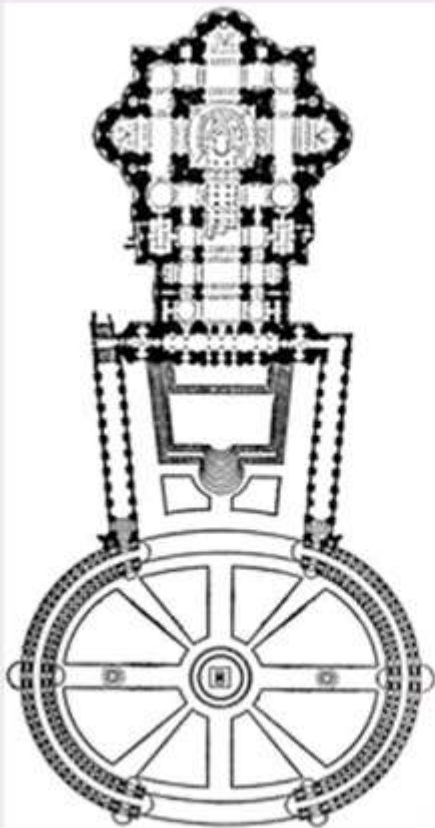
Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : c

Q.111 The plan given below represents the famous square that St Peter's Basilica in Rome opens out to.

Studying the plan form identify the three main built elements that define the plaza



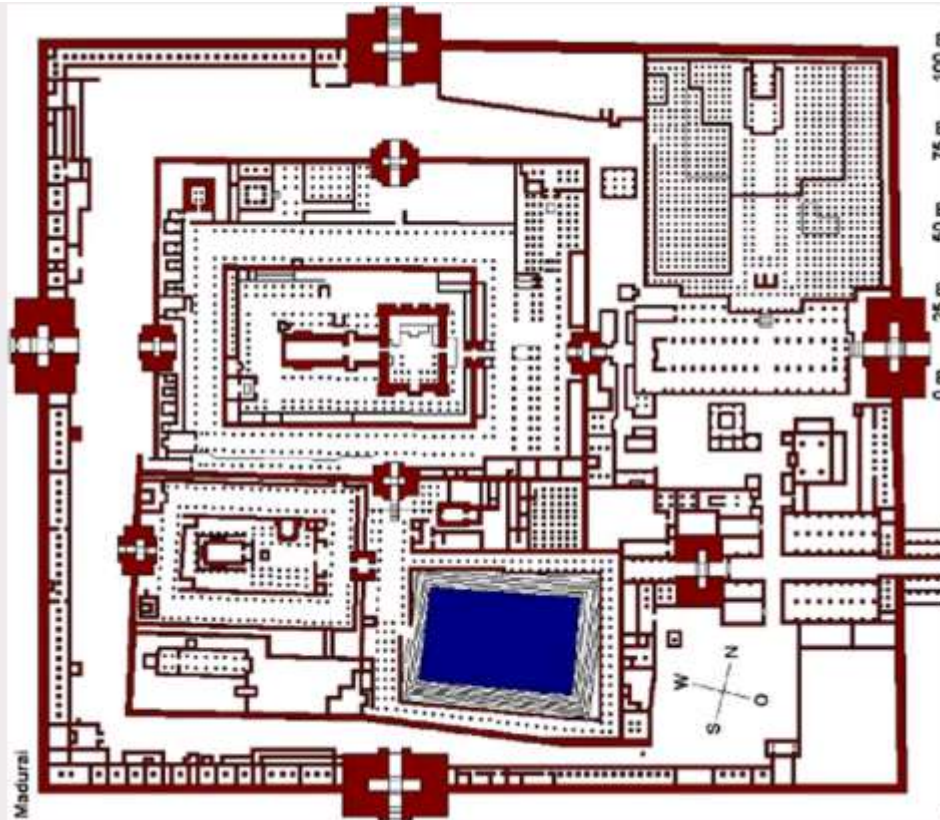
Options :

- a. Shopping arcade
- b. Colonnade
- c. Obelisk
- d. Dome
- e. Avenue trees
- f. landscaped gardens
- g. Porch.
- h. Water body

- **Correct Answer :** Colonnade, Obelisk, Porch

Q.112 The following sketch is the plan of the Minakshi temple in Madurai which has temples within the temple complex each with its own set of enclosures and built forms defining them.

From the given plan form identify three most important built elements that define these enclosures

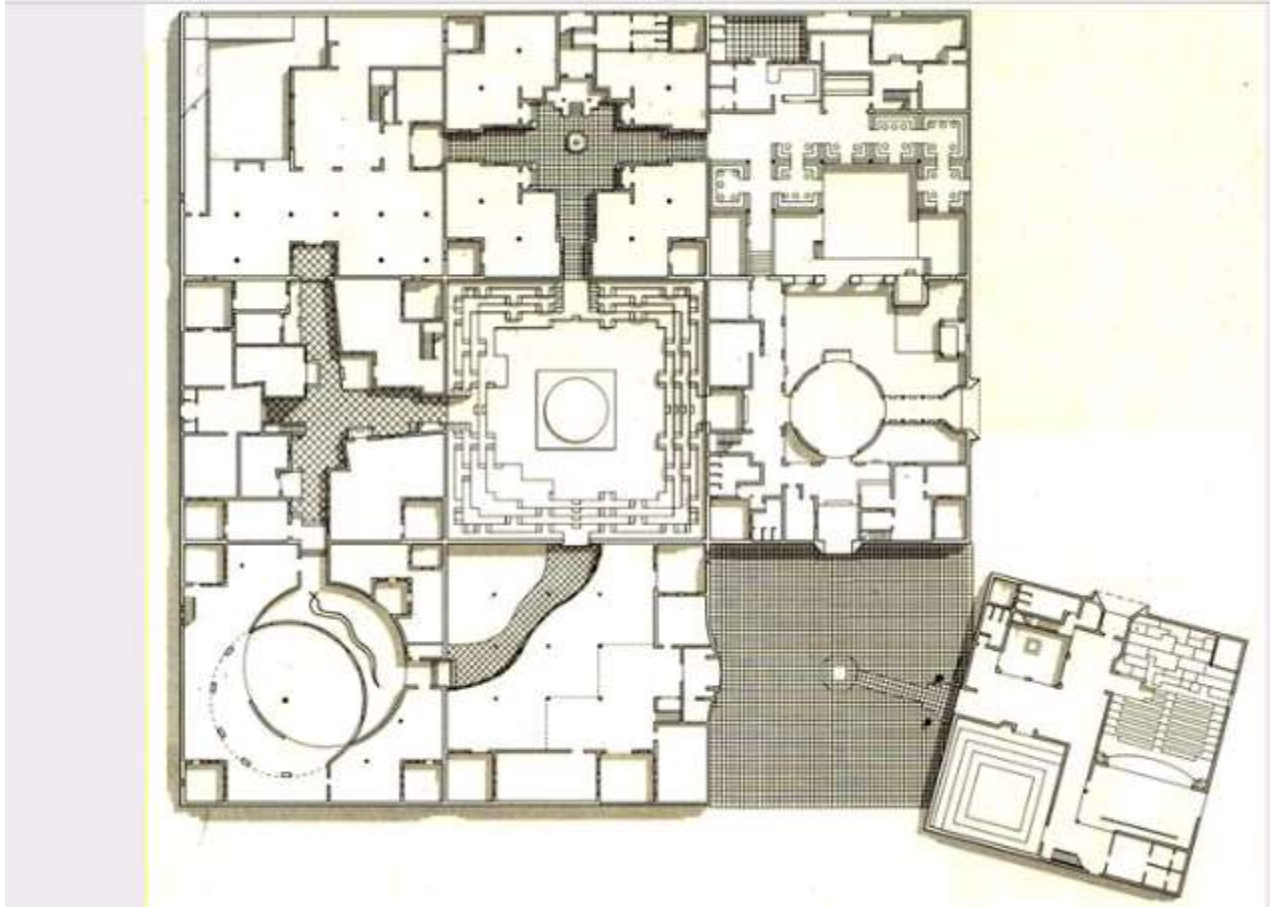


Options :

- a. Gopurams
- b. Vimanas
- c. Mandapas
- d. Stambhas
- e. Tanks
- f. Prakarams
- g. Bazaar
- h. Kalasas

Q.113 The sketch given below is the plan of the Jawahar Kala Kendra, Jaipur designed by Architect Charles Correa. The plan form of this complex is an analog of the plan of the city of Jaipur.

From the given plan sketch below identify the three most important spatial planning and visual principles adopted.



Options :

- a. Mandala
- b. Bazaars
- c. Distortion
- d. Kund
- e. Symbolism
- f. Maze
- g. Illusions
- h. Ponds

• **Correct Answer :** Mandala, Kund, Symbolism

Q.114 In the two images given below there are some very subtle differences. Can you identify the total number of differences therein?



Options :

- a. 4
- b. 5
- c. 6
- d. 7

• Correct Answer : A=2, B=3, C=1, D=0

Q.115 Spot the number of differences in the two pictures given below:

Options :

- a. 10
- b. 11
- c. 12
- d. 09

• Correct Answer : A=3,B=1,C=0,D=2

D-X)1 Section2 Test name

This image belongs to Q.1, Q.2

Carefully observe the image given below. This image will be visible only for 30 seconds and will not appear again once accessed and viewed.



Q.116 How many benches are there in the park?

Options :

- a. 4
- b. 3
- c. 6
- d. 5

• Correct Answer : D

Q.117 How many old people are in the park?

Options :

- a. 2
- b. 3
- c. 1
- d. 4

• Correct Answer : A

D-X)2 Section2 Test name

This image belongs to Q.3, Q.4

Carefully observe the image given below. This image will be visible only for 30 seconds and will not appear again once accessed and viewed.



Q.118 How many stationery items did you see?

Options :

- a. 8
- b. 6
- c. 4
- d. 7

• Correct Answer : D

Q.119 How many objects were there which tell time?

Options :

- a. 3
- b. 6
- c. 4
- d. 2

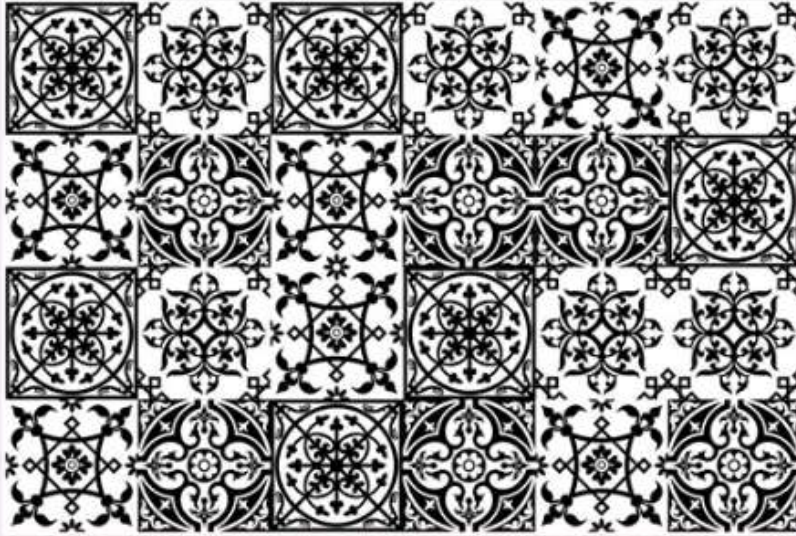
• Correct Answer : A

D-X)3 Section2 Test name

This image belongs to Q.5, Q.6

This image belongs to Q.5, Q.6

Carefully observe the image given below. This image will be visible only for 30 seconds and will not appear again.



Q.120 In the given tile pattern how many unique pieces of tiles were arranged.

Options :

- a. 6
- b. 4
- c. 5
- d. 10

• Correct Answer : B

Q.121 How many tiles appeared in pairs of TWO?

Options :

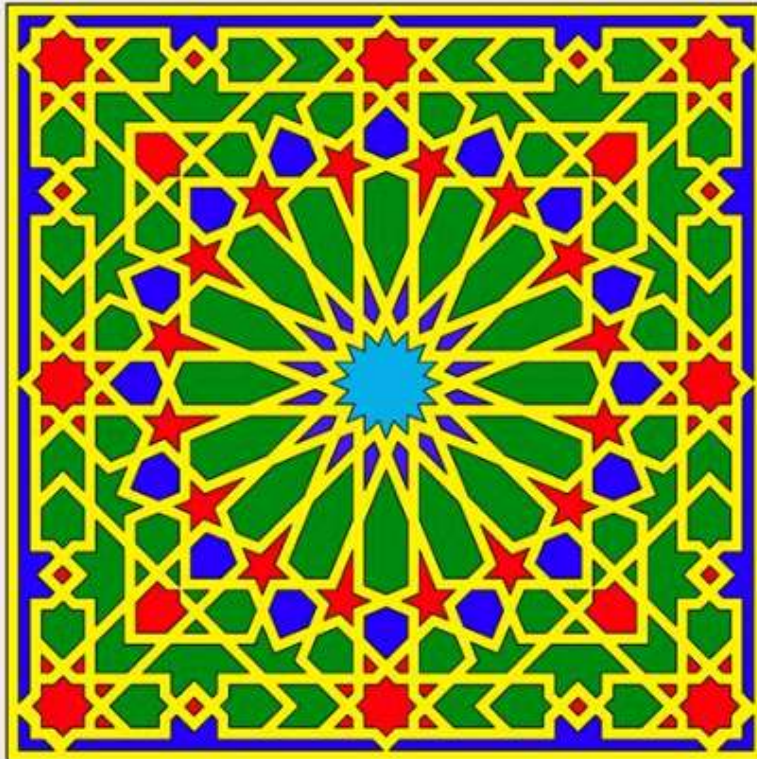
- a. 6
- b. 4
- c. 5
- d. 3

• Correct Answer : D

D-X)4 Section2 Test name

This image belongs to Q.7, Q.8

Carefully observe the image given below. This image will be visible only for 30 seconds and will not appear again once accessed and viewed.



Q.122 Enter the correct **colour** of the shape given below that appeared in the geometric pattern.



Options :

- a. (A)
- b. (B)
- c. (C)
- d. (D)

• Correct Answer : A

Q.123 Enter the number of times that the shape given below was repeated in the geometric pattern.



Options :

- a. 6
- b. 3
- c. 8
- d. 4

• Correct Answer : D

D-X)5 Section2 Test name

This image belongs to Q.9, Q.10

Carefully observe the image given below. This image will be visible only for 30 seconds and will not appear again once accessed and viewed.



Q.124 How many times does the given leaf appear?



Options :

- a. 9
- b. 4
- c. 7
- d. 3

• Correct Answer : B

Q.125 How many times does the given colour appear?



Options :

- a. 7
- b. 8
- c. 5
- d. 10

• Correct Answer : A

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