

Q:1

Topic Name:Mathematics – Part I-Section A

ItemCode:111

Let α be a root of the equation $1 + x^2 + x^4 = 0$.Question: Then the value of $\alpha^{1011} + \alpha^{2022} - \alpha^{3033}$ is equal to :

- A 1
- B α
- C $1 + \alpha$
- D $1 + 2\alpha$

Q:2

Topic Name:Mathematics – Part I-Section A

ItemCode:112

Let $\arg(z)$ represent the principal argument of the complex number z .Question: Then, $|z| = 3$ and $\arg(z - 1) - \arg(z + 1) = \frac{\pi}{4}$ intersect

- A exactly at one point.
- B exactly at two points.
- C nowhere.
- D at infinitely many points.

Q:3

Topic Name:Mathematics – Part I-Section A

ItemCode:113

Let $A = \begin{pmatrix} 2 & -1 \\ 0 & 2 \end{pmatrix}$. If $B = I - {}^5C_1(\text{adj}A) + {}^5C_2(\text{adj}A)^2 - \dots - {}^5C_5(\text{adj}A)^5$, then theQuestion: sum of all elements of the matrix B is

- A -5
- B -6
- C -7
- D -8

Q:4

Topic Name:Mathematics – Part I-Section A

ItemCode:114

The sum of the infinite series $1 + \frac{5}{6} + \frac{12}{6^2} + \frac{22}{6^3} + \frac{35}{6^4} + \frac{51}{6^5} + \frac{70}{6^6} + \dots$

Question: is equal to:

- A $\frac{425}{216}$
- B $\frac{429}{216}$
- C $\frac{288}{125}$
- D $\frac{280}{125}$

Q:5

ItemCode:115

The value of $\lim_{x \rightarrow 1} \frac{(x^2 - 1)\sin^2(\pi x)}{x^4 - 2x^3 + 2x - 1}$

Question: is equal to:

A $\frac{\pi^2}{6}$

B $\frac{\pi^2}{3}$

C $\frac{\pi^2}{2}$

D π^2

Q:6

Topic Name: Mathematics – Part I-Section A

ItemCode:116

Let $f : \mathbb{R} \rightarrow \mathbb{R}$ be a function defined by $f(x) = (x - 3)^{n_1}(x - 5)^{n_2}$, $n_1, n_2 \in \mathbb{N}$.

Question: Then, which of the following is NOT true?

A For $n_1 = 3, n_2 = 4$, there exists $\alpha \in (3, 5)$ where f attains local maxima.

B For $n_1 = 4, n_2 = 3$, there exists $\alpha \in (3, 5)$ where f attains local minima.

C For $n_1 = 3, n_2 = 5$, there exists $\alpha \in (3, 5)$ where f attains local maxima.

D For $n_1 = 4, n_2 = 6$, there exists $\alpha \in (3, 5)$ where f attains local maxima.

Q:7

Topic Name: Mathematics – Part I-Section A

ItemCode:117

Let f be a real valued continuous function on $[0, 1]$ and

$$f(x) = x + \int_0^1 (x-t)f(t)dt.$$

Question: Then, which of the following points (x, y) lies on the curve $y = f(x)$?

A (2, 4)

B (1, 2)

C (4, 17)

D (6, 8)

Q:8

Topic Name: Mathematics – Part I-Section A

ItemCode:118

If $\int_0^2 (\sqrt{2x} - \sqrt{2x-x^2}) dx = \int_0^1 \left(1 - \sqrt{1-y^2} - \frac{y^2}{2}\right) dy + \int_1^2 \left(2 - \frac{y^2}{2}\right) dy + I$

Question: then I equals

A $\int_0^1 (1 + \sqrt{1-y^2}) dy$

B $\int_0^1 \left(\frac{y^2}{2} - \sqrt{1-y^2} + 1\right) dy$

C $\int_0^1 (1 - \sqrt{1-y^2}) dy$

D $\int_0^1 \left(\frac{y^2}{2} + \sqrt{1-y^2} + 1 \right) dy$

Q:9

Topic Name: Mathematics – Part I-Section A

ItemCode: 119

If $y = y(x)$ is the solution of the differential equation

$$(1 + e^{2x}) \frac{dy}{dx} + 2(1 + y^2)e^x = 0 \text{ and } y(0) = 0, \text{ then}$$

$$6 \left\{ y'(0) + \left(y(\log_e \sqrt{3}) \right)^2 \right\} \text{ is equal to}$$

Question:

- A 2
- B -2
- C -4
- D -1

Q:10

Topic Name: Mathematics – Part I-Section A

ItemCode: 1110

Let $P : y^2 = 4ax, a > 0$ be a parabola with focus S. Let the tangents to the parabola

P make an angle of $\frac{\pi}{4}$ with the line $y = 3x + 5$ touch the parabola P at A and B.

Question: Then the value of a for which A, B and S are collinear is

- A 8 only
- B 2 only
- C $\frac{1}{4}$ only
- D any $a > 0$

Q:11

Topic Name: Mathematics – Part I-Section A

ItemCode: 1111

Let a triangle ABC be inscribed in the circle $x^2 - \sqrt{2}(x + y) + y^2 = 0$ such that

Question: $\angle BAC = \frac{\pi}{2}$. If the length of side AB is $\sqrt{2}$, then the area of the $\triangle ABC$ is equal to :

- A $(\sqrt{2} + \sqrt{6})/3$
- B $(\sqrt{6} + \sqrt{3})/2$
- C $(3 + \sqrt{3})/4$
- D $(\sqrt{6} + 2\sqrt{3})/4$

Q:12

Topic Name: Mathematics – Part I-Section A

ItemCode: 1112

Let $\frac{x-2}{3} = \frac{y+1}{-2} = \frac{z+3}{-1}$ lie on the plane $px - qy + z = 5$, for some $p, q \in \mathbb{R}$. The

Question: shortest distance of the plane from the origin is:

- A $\frac{\sqrt{3}}{\sqrt{109}}$
- B $\frac{\sqrt{5}}{\sqrt{142}}$

C $\frac{5}{\sqrt{71}}$

D $\frac{1}{\sqrt{142}}$

Q:13

Topic Name: Mathematics – Part I-Section A

ItemCode: 1113

The distance of the origin from the centroid of the triangle whose two sides have the equations

$x - 2y + 1 = 0$ and $2x - y - 1 = 0$ and whose orthocenter is $\left(\frac{7}{3}, \frac{7}{3}\right)$ is:

Question:

A $\sqrt{2}$

B 2

C $2\sqrt{2}$

D 4

Q:14

Topic Name: Mathematics – Part I-Section A

ItemCode: 1114

Let Q be the mirror image of the point P(1, 2, 1) with respect to the plane $x + 2y + 2z = 16$. Let T be a plane passing through the point Q and contains the

line $\vec{r} = -\hat{k} + \lambda(\hat{i} + \hat{j} + 2\hat{k}), \lambda \in \mathbb{R}$. Then, which of the following points lies on T?

Question:

A (2, 1, 0)

B (1, 2, 1)

C (1, 2, 2)

D (1, 3, 2)

Q:15

Topic Name: Mathematics – Part I-Section A

ItemCode: 1115

Let A, B, C be three points whose position vectors respectively are

$$\vec{a} = \hat{i} + 4\hat{j} + 3\hat{k}$$

$$\vec{b} = 2\hat{i} + \alpha\hat{j} + 4\hat{k}, \alpha \in \mathbb{R}$$

$$\vec{c} = 3\hat{i} - 2\hat{j} + 5\hat{k}$$

If α is the smallest positive integer for which $\vec{a}, \vec{b}, \vec{c}$ are noncollinear, then the

Question: length of the median, in ΔABC , through A is :

A $\frac{\sqrt{82}}{2}$

B $\frac{\sqrt{62}}{2}$

C $\frac{\sqrt{69}}{2}$

D $\frac{\sqrt{66}}{2}$

Q:16

Topic Name: Mathematics – Part I-Section A

ItemCode:1116

The probability that a relation R from $\{x, y\}$ to $\{x, y\}$ is both symmetric and

Question: transitive, is equal to

A $\frac{5}{16}$

B $\frac{9}{16}$

C $\frac{11}{16}$

D $\frac{13}{16}$

Q:17

Topic Name:Mathematics – Part I-Section A

ItemCode:1117

The number of values of $a \in \mathbb{N}$ such that the variance of 3, 7, 12, a , $43 - a$ is a

Question: natural number is:

A 0

B 2

C 5

D infinite

Q:18

Topic Name:Mathematics – Part I-Section A

ItemCode:1118

From the base of a pole of height 20 meter, the angle of elevation of the top of a tower is 60° . The pole subtends an angle 30° at the top of the tower. Then the

Question: height of the tower is:

A $15\sqrt{3}$

B $20\sqrt{3}$

C $20 + 10\sqrt{3}$

D 30

Q:19

Topic Name:Mathematics – Part I-Section A

ItemCode:1119

Question: Negation of the Boolean statement $(p \vee q) \Rightarrow ((\sim r) \vee p)$ is equivalent to

A $p \wedge (\sim q) \wedge r$

B $(\sim p) \wedge (\sim q) \wedge r$

C $(\sim p) \wedge q \wedge r$

D $p \wedge q \wedge (\sim r)$

Q:20

Topic Name:Mathematics – Part I-Section A

ItemCode:1120

Let $n \geq 5$ be an integer. If $9^n - 8n - 1 = 64\alpha$ and $6^n - 5n - 1 = 25\beta$, then $\alpha - \beta$ is

Question: equal to

A $1 + {}^nC_2(8-5) + {}^nC_3(8^2-5^2) + \dots + {}^nC_n(8^{n-1}-5^{n-1})$

B $1 + {}^nC_3(8-5) + {}^nC_4(8^2-5^2) + \dots + {}^nC_n(8^{n-2}-5^{n-2})$

C ${}^nC_3(8-5) + {}^nC_4(8^2-5^2) + \dots + {}^nC_n(8^{n-2}-5^{n-2})$

D ${}^nC_4(8-5) + {}^nC_5(8^2-5^2) + \dots + {}^nC_n(8^{n-3}-5^{n-3})$

Q:21

ItemCode: 1121

Let $\vec{a} = \hat{i} - 2\hat{j} + 3\hat{k}$, $\vec{b} = \hat{i} + \hat{j} + \hat{k}$ and \vec{c} be a vector such that $\vec{a} + (\vec{b} \times \vec{c}) = \vec{0}$ and

Question: $\vec{b} \cdot \vec{c} = 5$. Then, the value of $3(\vec{c} \cdot \vec{a})$ is equal to ___.

Q:22

Topic Name: Mathematics – Part I-Section B

ItemCode: 1122

Let $y = y(x)$, $x > 1$, be the solution of the differential equation

$(x-1)\frac{dy}{dx} + 2xy = \frac{1}{x-1}$, with $y(2) = \frac{1+e^4}{2e^4}$. If $y(3) = \frac{e^\alpha + 1}{\beta e^\alpha}$, then the value of

Question: $\alpha + \beta$ is equal to ___.

Q:23

Topic Name: Mathematics – Part I-Section B

ItemCode: 1123

Let 3, 6, 9, 12, ... upto 78 terms and 5, 9, 13, 17, ... upto 59 terms be two series.

Question: Then, the sum of the terms common to both the series is equal to ___.

Q:24

Topic Name: Mathematics – Part I-Section B

ItemCode: 1124

Question: The number of solutions of the equation $\sin x = \cos^2 x$ in the interval $(0, 10)$ is ___.

Q:25

Topic Name: Mathematics – Part I-Section B

ItemCode: 1125

For real numbers a, b ($a > b > 0$), let

Area $\left\{ (x, y) : x^2 + y^2 \leq a^2 \text{ and } \frac{x^2}{a^2} + \frac{y^2}{b^2} \geq 1 \right\} = 30\pi$

and

Area $\left\{ (x, y) : x^2 + y^2 \geq b^2 \text{ and } \frac{x^2}{a^2} + \frac{y^2}{b^2} \leq 1 \right\} = 18\pi$

Question: Then the value of $(a-b)^2$ is equal to ___.

Q:26

Topic Name: Mathematics – Part I-Section B

ItemCode: 1126

Let f and g be twice differentiable even functions on $(-2, 2)$ such that

$f\left(\frac{1}{4}\right) = 0$, $f\left(\frac{1}{2}\right) = 0$, $f(1) = 1$ and $g\left(\frac{3}{4}\right) = 0$, $g(1) = 2$

Then, the minimum number of solutions of $f(x)g''(x) + f'(x)g'(x) = 0$ in $(-2, 2)$ is

Question: equal to ___.

Q:27

Topic Name: Mathematics – Part I-Section B

ItemCode: 1127

Let the coefficients of x^{-1} and x^{-3} in the expansion of $\left(2x^{\frac{1}{5}} - \frac{1}{x^{\frac{1}{5}}}\right)^{15}$, $x > 0$, be m

and n respectively. If r is a positive integer such that $mn^2 = {}^{15}C_r \cdot 2^r$, then the

Question: value of r is equal to ___.

Q:28

ItemCode: 1128

The total number of four digit numbers such that each of first three digits is

Question: divisible by the last digit, is equal to _____.

Q:29

Topic Name: Mathematics – Part I-Section B

ItemCode: 1129

Let $M = \begin{bmatrix} 0 & -\alpha \\ \alpha & 0 \end{bmatrix}$, where α is a non-zero real number and $N = \sum_{k=1}^{49} M^{2k}$. If

Question: $(I - M^2)N = -2I$, then the positive integral value of α is ____.

Q:30

Topic Name: Mathematics – Part I-Section B

ItemCode: 1130

Let $f(x)$ and $g(x)$ be two real polynomials of degree 2 and 1 respectively. If

$f(g(x)) = 8x^2 - 2x$, and $g(f(x)) = 4x^2 + 6x + 1$, then the value of $f(2) + g(2)$ is

Question: _____.

Q:31

Topic Name: Aptitude Test – Part II

ItemCode: 41131

Question: Which one of the following is the tallest Dam in India?

- A Tehri Dam
- B Bhakra Dam
- C Hirakund Dam
- D Sardar Sarowar Dam

Q:32

Topic Name: Aptitude Test – Part II

ItemCode: 41132

Question: Jawahar Kala Kendra (J.K.K.) in Jaipur was designed by which Architect ?

- A Raj Rewal
- B Charles Correa
- C B. V. Doshi
- D Christopher Charles Benninger

Q:33

Topic Name: Aptitude Test – Part II

ItemCode: 41133

Arrange the following house spaces in a logical order of access by users

- (a). Entrance Porch / Verandah
- (b). Toilet
- (c). Room space
- (d). Entrance Lobby (Indoor)

Question: (d). Entrance Lobby (Indoor)

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

Q:34

Topic Name: Aptitude Test – Part II

ItemCode:41134

Match List I with List II

List I

- A. Bibi ka Maqbara
- B. Adhai Din ka Jhopda
- C. Rani ki Badi

List II (Cities)

- I. Ajmer
- II. Agra
- III. Aurangabad
- IV. Bundi

Question: D. Chini ka Rauza

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

Q:35

Topic Name:Aptitude Test – Part II

ItemCode:41135

Match List I with List II

List I

- A. Baba Saheb
- B. Bapu
- C. Frontier Gandhi
- D. Gurudev

List II

- I. Rabindranath Tagore
- II. Abdul Ghaffar Khan
- III. B. R. Ambedkar
- IV. Mohan Das Karamchand Gandhi

Question:

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

Q:36

Topic Name:Aptitude Test – Part II

ItemCode:41136

Match List I with List II

List I

- A. Koti Banal
- B. Bhunga
- C. Chittillu

List II

- I. Gujarat
- II. Assam
- III. Uttarkhand
- IV. Andhra Pradesh

Question: D. Ekra

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

Q:37

Topic Name:Aptitude Test – Part II

ItemCode:41137

From the following types of lines, which one is used to represent elements hidden

Question: or removed from our view.

- A Grid Lines
- B Solid Lines
- C Continuous Lines
- D Dashed Lines

Q:38
Topic Name:Aptitude Test – Part II

ItemCode:41138

Question: Jahaz Mahal is located in which city of Madhya Pradesh ?

- A Maheshwar
- B Chanderi
- C Mandu
- D Khajuraho

Q:39

Topic Name:Aptitude Test – Part II

ItemCode:41139

Question: Which of the following is an example of cultural landscape ?

- A Bhimbetka Caves
- B Ajantha Caves
- C Elephanta Caves
- D Barabar Caves

Q:40

Topic Name:Aptitude Test – Part II

ItemCode:41140

Question: Which of the following colour is obtained by mixing of Red and Blue colour ?

- A Purple
- B Orange
- C Pink
- D Brown

Q:41

Topic Name:Aptitude Test – Part II

ItemCode:41141

Question: Which one of the famous Architect Designed White House in Washington D.C.

- A Robert Mills
- B Pierre Charles L'Enfant
- C James Hoban
- D Benjamin Latrobe

Q:42

Topic Name:Aptitude Test – Part II

ItemCode:41142

Question: Which of the following Indian state does not have any UNESCO world heritage site till December, 2021?

- A Rajasthan
- B Telangana
- C Sikkim
- D Haryana

Q:43

Topic Name:Aptitude Test – Part II

ItemCode:41143

Question: Which amongst these place have the oldest cave paintings in India ?

- A Badami Caves

B	Sanchi
C	Bhimbetka
D	Sarnath

Q:44

Topic Name:Aptitude Test – Part II

ItemCode:41144	
Question:In which state 'Adalaj Vav' is located ?	
A	Madhya Pradesh
B	Rajasthan
C	Maharashtra
D	Gujarat

Q:45

Topic Name:Aptitude Test – Part II

ItemCode:41145	
Question:The famous 'Piazza della signoria' is located in which city ?	
A	Venice
B	Milan
C	Florence
D	Paris

Q:46

Topic Name:Aptitude Test – Part II

ItemCode:41146	
As of Jan. 2022 which of the following building is recorded as a tallest building of India ?	
Question:India ?	
A	World view
B	Lodha Trump Tower
C	Palais Royale
D	World One

Q:47

Topic Name:Aptitude Test – Part II

ItemCode:41147	
Question:Which Indian Architect is awarded with RIBA Royal Gold Medal 2022 ?	
A	B. V. Doshi
B	Revathi Kamath
C	Brinda Somaya
D	Rahul Mehrotra

Q:48

Topic Name:Aptitude Test – Part II

ItemCode:41148	
Question:What is the height of world's tallest statue "The statue of Unity" ?	
A	150 m
B	597 m
C	182 m
D	251 m

Q:49

ItemCode:41149

Which Indian architect is the Author of book titled 'Laurie Bakar : Life, Works & Writings' ?

- A Gautam Bhatia
- B B. V. Doshi
- C Rajeev Garg
- D Sonia Mehta

Q:50

Topic Name:Aptitude Test – Part II

ItemCode:41150

Persian garden concept of charbagh can be seen as a prominent landscape element in which of the following architecture style.

- A Mughal Architecture
- B Hindu Temple Architecture
- C Post Independence Architecture in India
- D Japanese landscape Architecture

Q:51

Topic Name:Aptitude Test – Part II

ItemCode:41151

Match List I with List II

- | List I | List II |
|--------------|------------------|
| A. Jaisalmer | I. White City |
| B. Jodhpur | II. Blue City |
| C. Jaipur | III. Golden City |
| D. Udaipur | IV. Pink City |

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

Q:52

Topic Name:Aptitude Test – Part II

ItemCode:41152

Match the architects with their buildings

- | List I | List II |
|-------------------|---------------------------|
| A. Charles Correa | I. Tagore Memorial Hall |
| B. Raj Rewal | II. Dudhsagar Dairy Plant |
| C. A.P. Kanvinde | III. Gandhi Ashram |
| D. B. V. Doshi | IV. Asian Games Village |

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

Q:53

Topic Name:Aptitude Test – Part II

ItemCode:41153

Match List I with List II

List I	List II
A. Patna	I. Golkonda Fort
B. Bijapur	II. Elephanta Caves
C. Mumbai	III. Gol Gumbaz
D. Hyderabad	IV. Gol Ghar

Question:

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

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

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

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

Q:54

Topic Name:Aptitude Test – Part II

ItemCode:41154

Match List I with List II

List I	List II
A. Hoysalas	I. Indo Islamic Architecture
B. Trabeation	II. Mosque
C. Calligraphy	III. Karnataka
D. Hammams	IV. Flat roof

Question:

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

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

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

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

Q:55

Topic Name:Aptitude Test – Part II

ItemCode:41155

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

Assertion A : Globally the frequency and Magnitude of disasters are rising significantly.

Reason R : Climate change is the cause of changes in natural landscape.

In the light of the above statements, choose most appropriate answer from options

Question: given below.

A Both A and R are correct, R is the correct explanation of A

B Both A and R are correct, R is not the correct explanation of A

C A is correct but R is not correct

D A is not correct but R is correct

Q:56

Topic Name:Aptitude Test – Part II

ItemCode:41156

Given below are two statements.

Statement I : Architect Otto Konigsberger planned the cities of Bhubaneswar and Gandhinagar.

Statement II : Architect Otto Konigsberger planned the city of Bhubaneswar.

In the light of the above statements, choose most appropriate answer from options

Question: given below.

A Both statement I and statement II are correct

B Both statement I and statement II are not correct

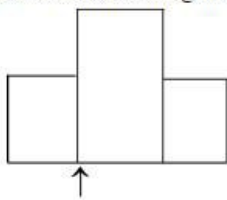
C Statement I is correct but statement II is not correct

Q:57

Topic Name:Aptitude Test – Part II

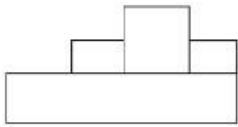
ItemCode:41157

The problem figure shows the top view of an object. Identify the most appropriate elevation looking in the direction of arrow, amongst the answer figures.

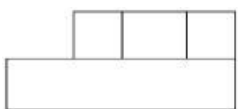


Question:

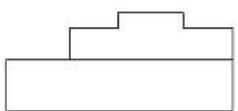
A



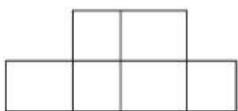
B



C



D

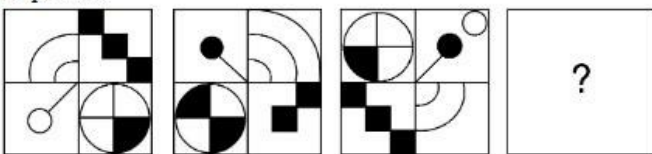


Q:58

Topic Name:Aptitude Test – Part II

ItemCode:41158

Identify the correct image from the answer figures, which will complete the sequence.

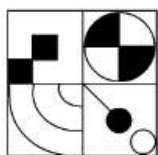


Question:

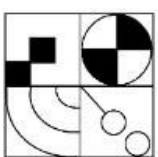
A



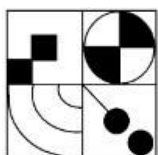
B



C



D

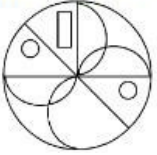


Q:59

Topic Name:Aptitude Test – Part II

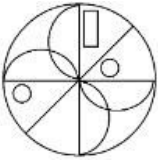
ItemCode:41159

Which one of the following answer figure is the most appropriate mirror image of the problem figure with respect to y-axis ?

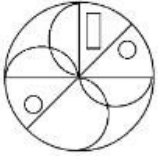


Question:

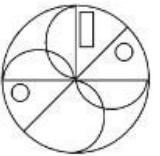
A



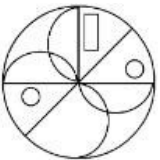
B



C



D

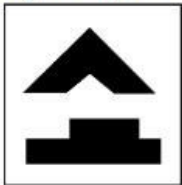


Q:60

Topic Name:Aptitude Test – Part II

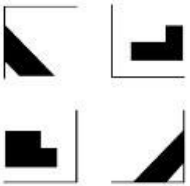
ItemCode:41160

Following answer figures shows the 4 parts of the question figure. Identify the most appropriate option which completes the image when you arrange it in correct logical sequence.

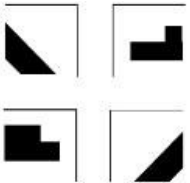


Question:

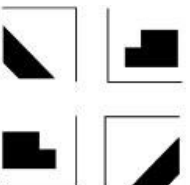
A

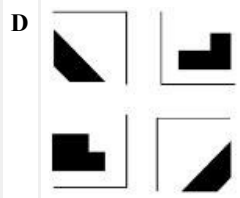


B



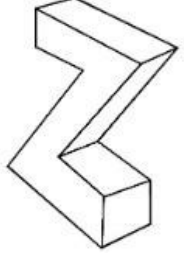
C





Q:61
Topic Name: Aptitude Test – Part II

ItemCode: 41161
 Identify the number of surfaces in the object/figure.

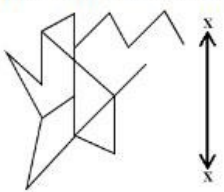


Question:

- A** 8
- B** 9
- C** 10
- D** 11

Q:62
Topic Name: Aptitude Test – Part II

ItemCode: 41162
 Which one of the following answer figure is most appropriate mirror image of the problem figure with respect x-x- axis.



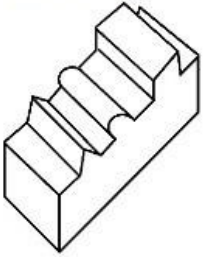
Question:

- A**
- B**
- C**
- D**

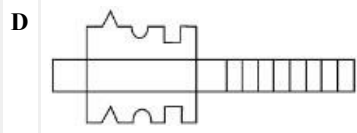
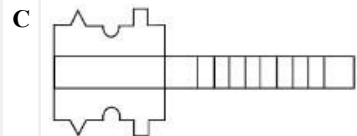
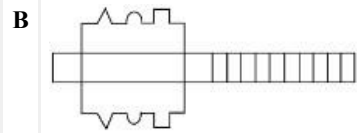
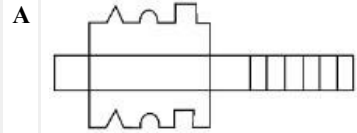
Q:63
Topic Name: Aptitude Test – Part II

ItemCode:41163

The 3D figure shows the view of an object. Identify the correct view, when figure is opened up.



Question:

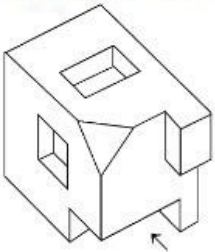


Q:64

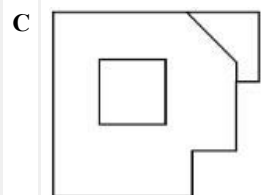
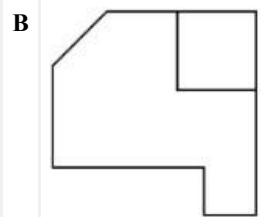
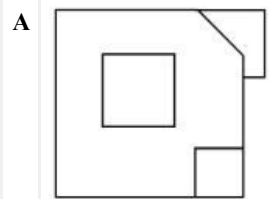
Topic Name:Aptitude Test – Part II

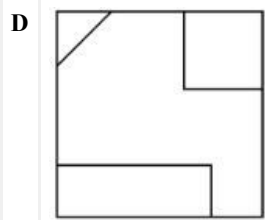
ItemCode:41164

The 3D figure shows the view of an object. Identify the most appropriate view looking in the direction of given arrow amongst the answer figures.



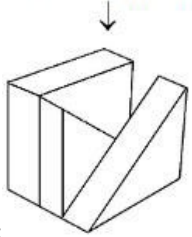
Question:



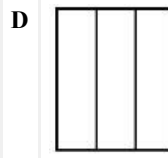
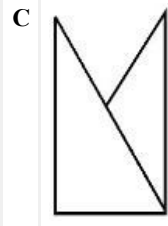
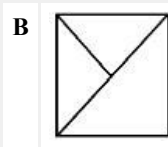
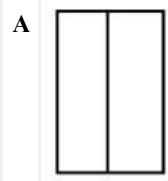


Q:65
 Topic Name:Aptitude Test – Part II

ItemCode:41165
 Question figure shows the 3D view of an object. Looking in the direction of given arrow, identify the most appropriate view, amongst the answer figures.

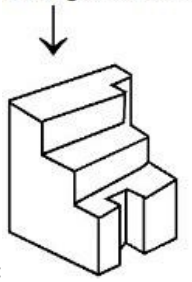


Question:

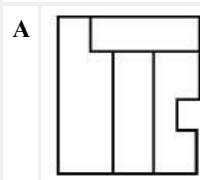


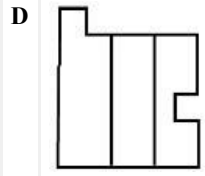
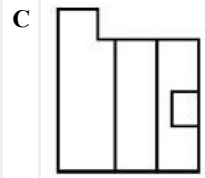
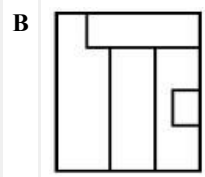
Q:66
 Topic Name:Aptitude Test – Part II

ItemCode:41166
 The problem figure shows the 3D view of an object. Identify the correct top view, amongst the answer figures.



Question:



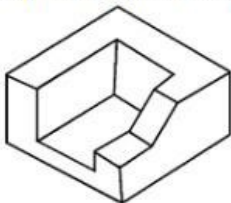


Q:67

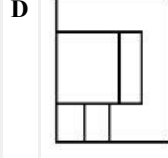
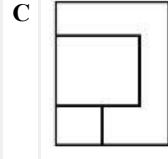
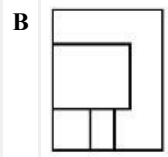
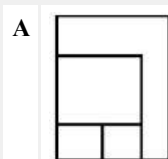
Topic Name:Aptitude Test – Part II

ItemCode:41167

The problem figure shows the 3D view of an object. Identify the most appropriate top view, amongst the answer figures.



Question:

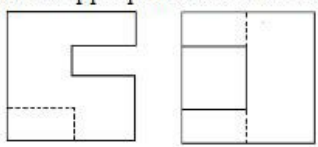


Q:68

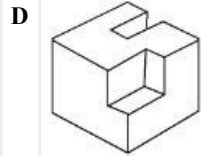
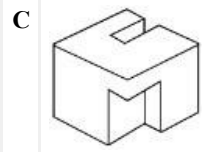
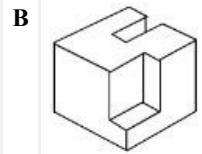
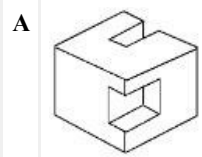
Topic Name:Aptitude Test – Part II

ItemCode:41168

The problem figure shows the top view and front view of an object. Identify the most appropriate 3D view of the object amongst the answer figures.



Question: TOP VIEW FRONT VIEW

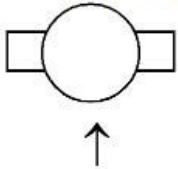


Q:69

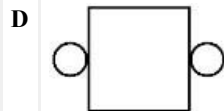
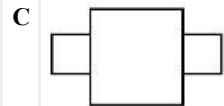
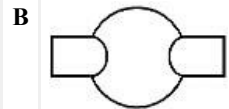
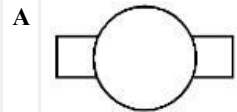
Topic Name:Aptitude Test – Part II

ItemCode:41169

Question figure shows top view of an object. Looking in the direction of given arrow. Identify the most appropriate elevation from the answer figures.



Question:

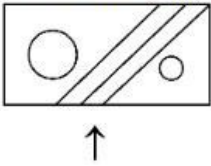


Q:70

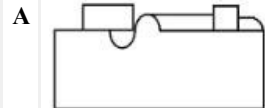
Topic Name:Aptitude Test – Part II

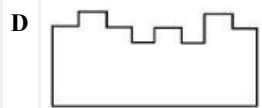
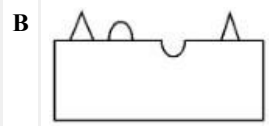
ItemCode:41170

Question figure shows the top view of an object. Looking in the direction of given arrow. Identify the most appropriate elevation from answer figures.



Question:



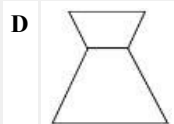
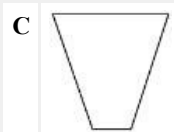
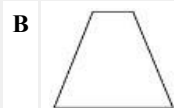
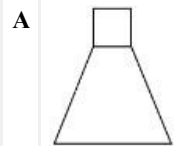
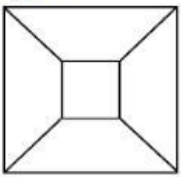


Q:71

Topic Name:Aptitude Test – Part II

ItemCode:41171

Question figure shows top view of an object. Looking in the direction of given arrow. Identify the incorrect option from given possible elevations in answer figures.

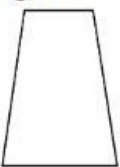


Q:72

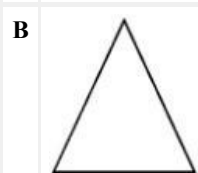
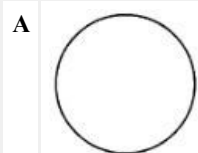
Topic Name:Aptitude Test – Part II

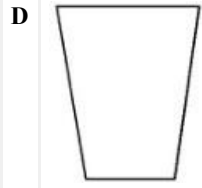
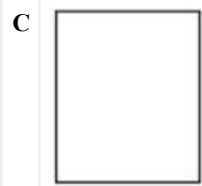
ItemCode:41172

Question figure shows top view of an object. Looking in the direction of given arrow. Identify the incorrect option from given possible elevations in answer figures.



Question: ↑



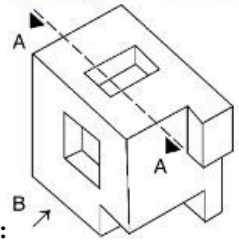


Q:73

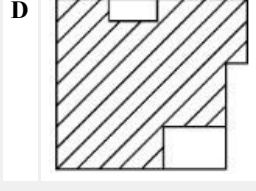
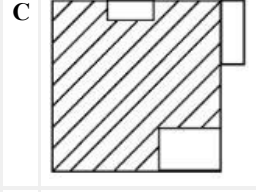
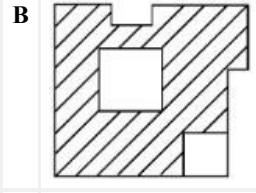
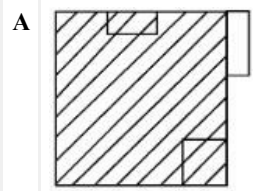
Topic Name: Aptitude Test – Part II

ItemCode: 41173

Question figure shows 3D view of a solid object. If you cut the object along the section line 'A-A' and look at the cross section from given direction of arrow 'B' Identify the correct sectional elevation from given answer figures.



Question:

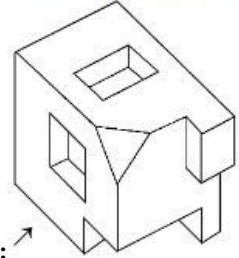


Q:74

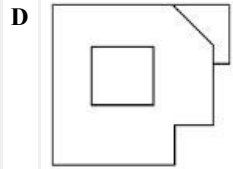
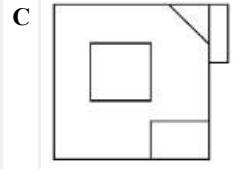
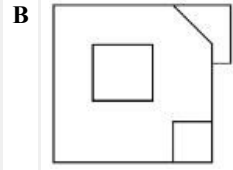
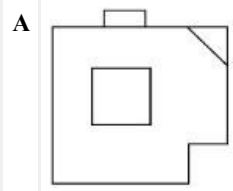
Topic Name: Aptitude Test – Part II

ItemCode: 41174

Question figure shows 3D view of an object. Looking in the direction of given arrow, Identify the most appropriate elevation from answer figures.



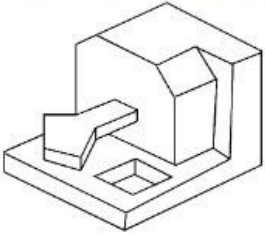
Question:



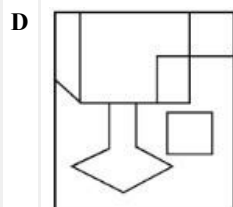
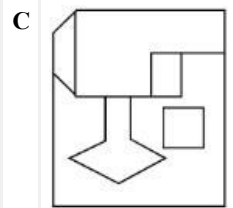
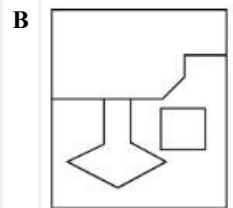
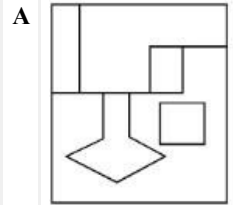
Q:75
Topic Name: Aptitude Test – Part II

ItemCode: 41175

Question figure shows 3D view of an object. Identify the most appropriate top view, amongst the answer figures.



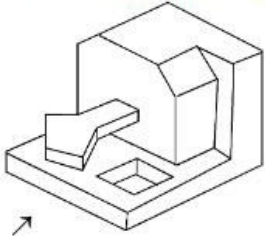
Question:



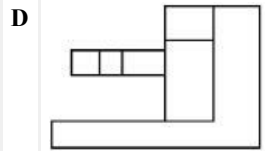
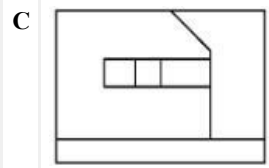
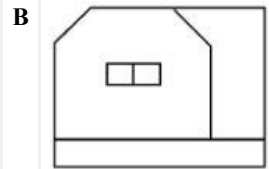
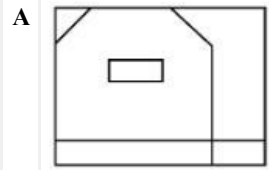
Q:76
Topic Name: Aptitude Test – Part II

ItemCode:41176

The problem figure shows 3D view of an object. Looking in the direction of given arrow, identify the most appropriate elevation from the given answer figures.



Question: ↗

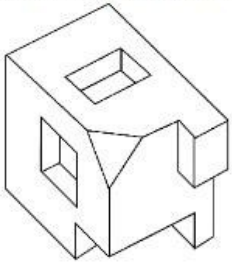


Q:77

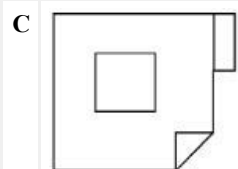
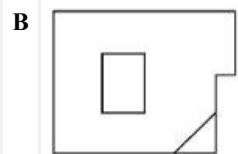
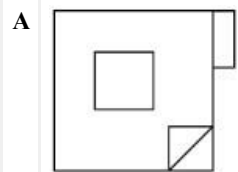
Topic Name:Aptitude Test – Part II

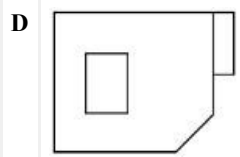
ItemCode:41177

The problem figure shows 3D view of an object. Identify the most appropriate top view, amongst the answer figures.



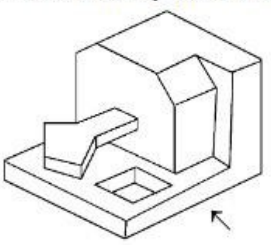
Question:



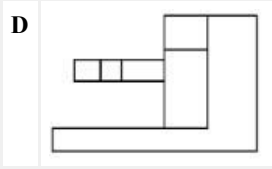
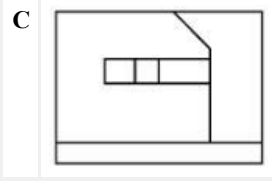
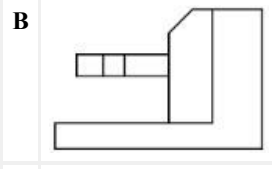
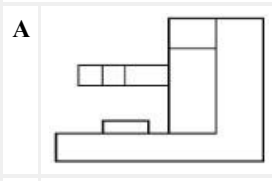


Q:78
Topic Name: Aptitude Test – Part II

ItemCode: 41178
 Question figure shows 3D view of an object, looking in the direction of given arrow, Identify the correct elevation from given answer figures.

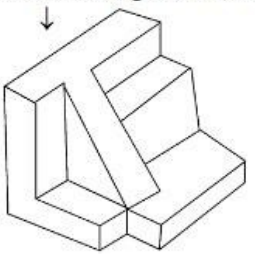


Question:

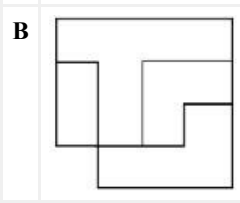
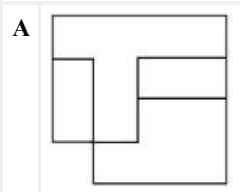


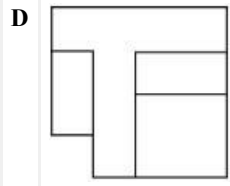
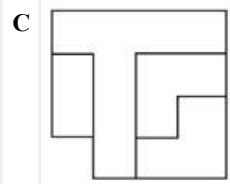
Q:79
Topic Name: Aptitude Test – Part II

ItemCode: 41179
 Question figure shows the 3D view of an object. Identify the most appropriate top view, amongst the answer figures.



Question:



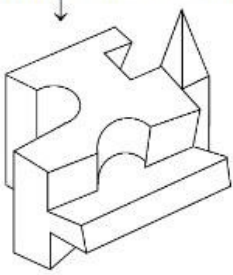


Q:80

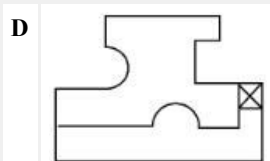
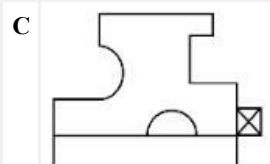
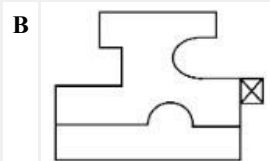
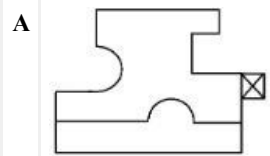
Topic Name: Aptitude Test – Part II

ItemCode: 41180

Question figure shows the 3D view of an object. Looking in the direction of arrow. Identify the most appropriate view from the answer figures.



Question:



Q:81

Topic Name: Drawing Test – Part III

ItemCode:41181

Draw a proportionate sketch of given reference image. Use black & white Pencil rendering technique.



OR

Draw proportionate sketch of any Historic Place you have visited recently. Use

Question: Black and White Pencil rendering techniques.

Q:82

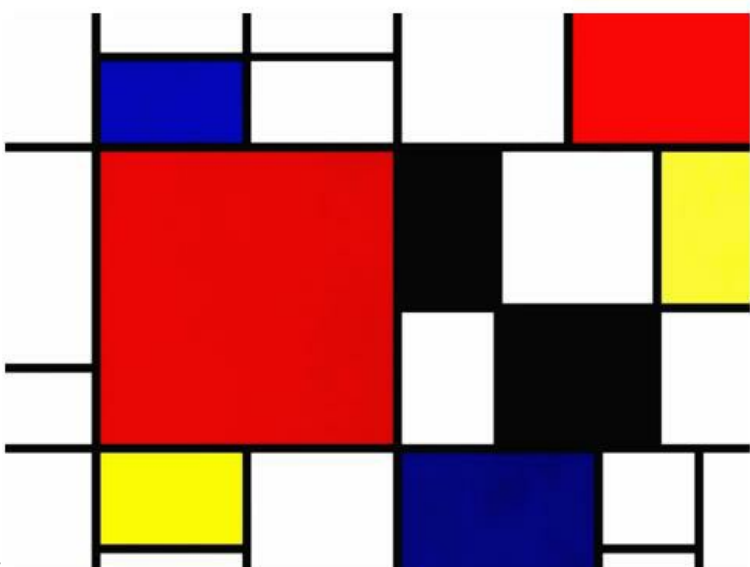
Topic Name: Drawing Test – Part III

ItemCode:41182

You have gone on a jungle Safari and your vehicle stopped near a water body, where a group of wild animals are drinking water. Imagine the same and draw a coloured sketch of the same.

OR

Given image shows painting by an artist. Consider it as a plan of an object. Keeping same proportion of the rectangles shown in image, give them height & develop interesting 3D composition. Use cool colour scheme to render the composition.



Question:

Q:83

Topic Name: Planning – Part III

ItemCode:52183

Question: What does 'LPG' stands for in LPG Model of Development?

- A Liquid Petroleum Gas
- B Liberalization Privatisation and Globalisation
- C Liberty Prosperity and Growth
- D Long Plan Goals

Q:84

Topic Name: Planning – Part III

ItemCode:52184

Match the correct pair :

List I

List II



I. Left Hand Curve



II. Pedestrian Crossing



III. Horn Prohibited



IV. Barrier Ahead

Question:

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

Q:85

Topic Name: Planning – Part III

ItemCode:52185

Question: AMRUT Scheme launched by Government of India, stands for-

- A Atal Mission for Rejuvenation and Urban Transformation
- B Atal Mission for Renewal of Urban Transformation
- C Atal Mission for Redevelopment of Urban Transformation
- D Atal Mission for Renewal and Urban Transformation

Q:86

Topic Name: Planning – Part III

ItemCode:52186

Question: The Tropic of cancer does not pass through which of the following state.

- A Madhya Pradesh
- B Chattisgarh
- C West Bengal
- D Manipur

Q:87

Topic Name: Planning – Part III

ItemCode:52187

Given below are two statements :

Statement I : The proportion of people working in primary, secondary and tertiary sectors of economy varies in developed and developing countries.

Statement II : Developed countries have a high proportion of people in secondary and tertiary activities where as developing countries tend to have higher proportion of their workforce engage in primary activities.

In the light of the above statements, choose the most appropriate answer from the

Question: options given bellows:

- | | |
|---|--|
| A | Both statements I and II are correct |
| B | Both statements I and II are not correct |
| C | Statement I is correct but statement II is not correct |
| D | Statement I is not correct but statement II is correct |

Q:88

Topic Name:Planning – Part III

ItemCode:52188

Match List I with List II for contents of Regional Resources

List I

- A. Geography of Region
- B. Demography
- C. Social Infrastructure

List II

- I. Population, Gender and Literacy Rate
- II. Water, Electricity, Sewage
- III. Topography, Climate and Hydrology
- IV. Education, Health care and Recreation

Question: D. Physical Infrastructure

- | | |
|---|------------------------|
| A | A-IV, B-I, C-II, D-III |
| B | A-II, B-I, C-IV, D-III |
| C | A-III, B-IV, C-I, D-II |
| D | A-III, B-I, C-IV, D-II |

Q:89

Topic Name:Planning – Part III

ItemCode:52189

Given below are the statements: One is labelled as Assertion 'A' & the other is labelled as Reason 'R'.

Assertion 'A' : Urbanization is essential for economic development of a nation.

Reason 'R' : The proportion of workforce engaged in secondary & tertiary sectors of economy increases with increase in urbanization.

In the light of above statements choose most appropriate answer from the options

Question: given below:

- | | |
|---|--|
| A | Both 'A' and 'R' are correct and 'R' is correct explanation of 'A' |
| B | Both 'A' and 'R' are correct but 'R' is not correct explanation of 'A' |
| C | 'A' is correct but 'R' is not correct |
| D | 'A' is not correct but 'R' is correct |

Q:90

Topic Name:Planning – Part III

ItemCode:52190

Question: The Pattern Language Theory was propounded by-

- | | |
|---|-----------------------|
| A | Christopher Alexander |
| B | Patrick Geddes |
| C | John Ruskin |
| D | Amos Rapoport |

Q:91

Topic Name:Planning – Part III

ItemCode:52191

Question: Tactical Urbanism means-

- A People Centric
- B Low Cost
- C Local Efforts
- D All of the above

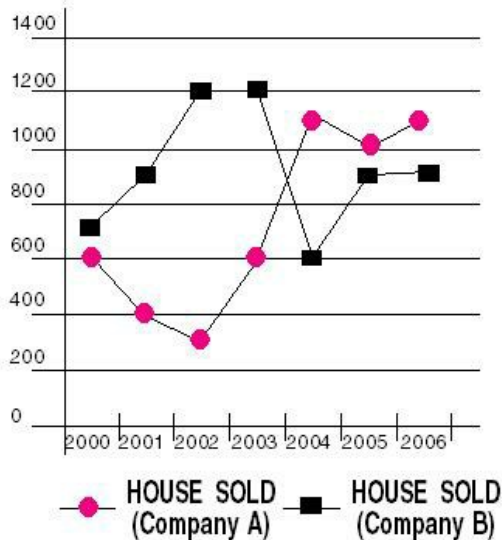
Q:92

Topic Name: Planning – Part III

ItemCode:52192

Sale of the company 'A' and 'B' is shown in given graph. What is the percentage of sale of company 'A' in the year 2004 out of total sale from year 2000 to 2006 ?

Number of House sold by companies A and B over the year



Question:

- A 19.64%
- B 18.30%
- C 21.56%
- D 24.16%

Q:93

Topic Name: Planning – Part III

ItemCode:52193

Question: 74th Constitutional Amendments pertain to-

- A Abolishing Urban Land Ceiling Act
- B Providing restricted role to rural courts to settle rural disputes
- C Providing more responsibilities to Municipal and Local bodies for Planning and development
- D Providing Right to information for the general people

Q:94

Topic Name: Planning – Part III

ItemCode:52194

Match List I with List II

List I

- A. Linear settlement
- B. Circular settlement
- C. Rectangular settlement
- D. Star-like settlement

List II

- I. Multiple or several roads converge and diverge and houses built along roads
- II. Found in Plain areas and road cuts at right angle
- III. Along a road, railway line, river, valley etc.
- IV. A central part remains open and develop around lakes and roads diverge radially

Question:

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

Q:95

Topic Name:Planning – Part III

ItemCode:52195

Question: How many Biosphere reserves have been set-up in India till 2020.

- A 10
- B 12
- C 18
- D 25

Q:96

Topic Name:Planning – Part III

ItemCode:52196

Question: Which of the following cities are not located at the bank of a river.

- A Kolhapur, Maharashtra
- B London
- C Paris
- D Udaipur

Q:97

Topic Name:Planning – Part III

ItemCode:52197

Question: Identify the reason for Shimla being cooler than Amritsar.


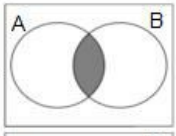
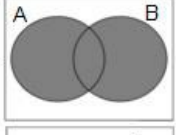
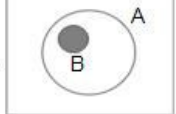
- A Shimla is at higher latitude
- B Shimla is at higher altitude
- C Shimla has different longitude
- D All of the above

Q:98

Topic Name:Planning – Part III

ItemCode:52198

Match the following **List I** (Operations of sets) with **List II** (venn Diagrams)

List I	List II
A. 	I. $B \subset A$
B. 	II. $A \cup B$
C. 	III. Set A
D. 	IV. $A \cap B$

Question:

- | | |
|---|------------------------|
| A | A-I, B-III, C-IV, D-II |
| B | A-III, B-IV, C-II, D-I |
| C | A-III, B-IV, C-I, D-II |
| D | A-IV, B-II, C-III, D-I |

Q:99

Topic Name:Planning – Part III

ItemCode:52199

Question: Contours are the lines on map to represent.

- | | |
|---|--|
| A | Places on Earth of equal rainfall |
| B | Places on Earth at the same altitude |
| C | Places on Earth with similar temperature |
| D | All of the above |

Q:100

Topic Name:Planning – Part III

ItemCode:521100

Archaeology as a profession faces many problems. Storage is one of them. The basement of museums is simply not large enough to store the artifacts that are like to be discovered in the future. There is not enough money even to catalogue the finds; as a result, they cannot be found again and become as inaccessible as if they had never been discovered. Indeed, with the help of a computer, sold artifacts could be more accessible than are the pieces stored in bulging museum basements. Prior to sale, each could be photographed, and the list of the purchasers could be maintained on the computer. A purchaser could even be required to agree to return the piece if it should become needed for scientific purposes. It would be unrealistic to suggest that illegal digging would stop if artifacts were sold in the open market. But the demand for the clandestine product would be substantially reduced. Who would want an unmarked pot when another was available whose provenance was known, and that was dated stratigraphically by the professional archaeologist who excavated it?

Question: The primary purpose of the passage is to propose-

- | | |
|---|--|
| A | An alternative to museum display of artifacts |
| B | A way to curb illegal digging while benefiting the archaeological profession |
| C | The government regulation of archaeological sites |
| D | A new system for cataloging duplicate artifact |

Q:101

Topic Name:Planning – Part III

ItemCode:521101

Archaeology as a profession faces many problems. Storage is one of them. The basement of museums is simply not large enough to store the artifacts that are like to be discovered in the future. There is not enough money even to catalogue the finds; as a result, they cannot be found again and become as inaccessible as if they had never been discovered. Indeed, with the help of a computer, sold artifacts could be more accessible than are the pieces stored in bulging museum basements. Prior to sale, each could be photographed, and the list of the purchasers could be maintained on the computer. A purchaser could even be required to agree to return the piece if it should become needed for scientific purposes. It would be unrealistic to suggest that illegal digging would stop if artifacts were sold in the open market. But the demand for the clandestine product would be substantially reduced. Who would want an unmarked pot when another was available whose provenance was known, and that was dated stratigraphically by the professional archaeologist who excavated it?

Assumptions concerning the effect of the official sale of duplicate artifacts on

Question: illegal excavation is based on...

- A Prospective purchasers would prefer to buy authenticated artifacts
- B The price of illegally excavated artifacts would rise
- C Computers could be used to trace new artifacts
- D Legal excavators would be forced to sell duplicate artifacts

Q:102

Topic Name:Planning – Part III

ItemCode:521102

In a school there are 3 sections of each class from grade 1 to 10. Area of each classroom is 45 sq. m. If the area required for one student is 1.5 sq. m. then how

Question: many students in total can be accommodated in the school ?

- A 900
- B 950
- C 850
- D 1000

Q:103

Topic Name:Planning – Part III

ItemCode:521103

Given below are two statements based on the given figure.

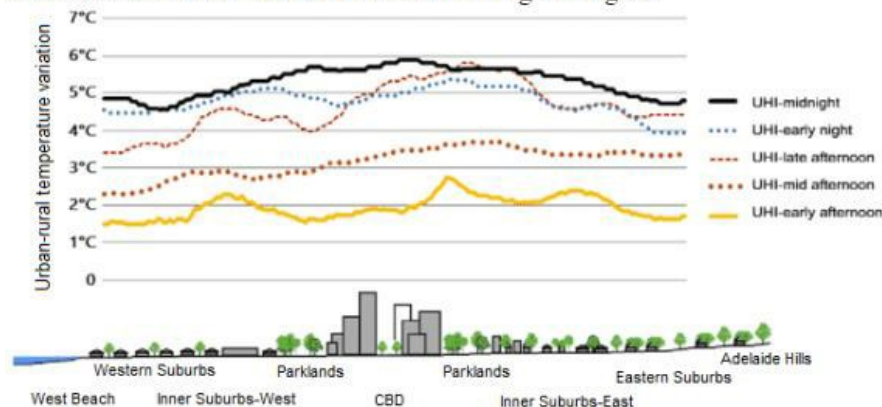


Figure : The UHI profile of Adelaide metropolitan (East-West) between 26 July and 15 August 2013.

Statement I : The near surface UHI effect peaked at 5.9°C during midnight in the CBD area.

Question: Statement II : Near surface UHI effect is lesser in CBD area than the suburbs.

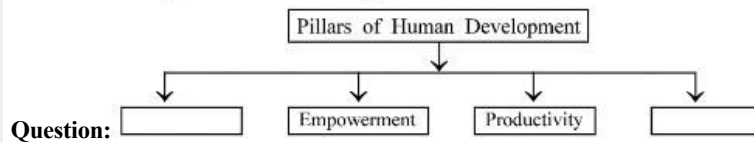
- A Both statements I and statements II are correct
- B Both statements I and statements II are not correct
- C Statement I is correct but statement II is not correct
- D Statement I is not correct but statement II is correct

Q:104

Topic Name: Planning – Part III

ItemCode:521104

Complete the following chart:



Question:

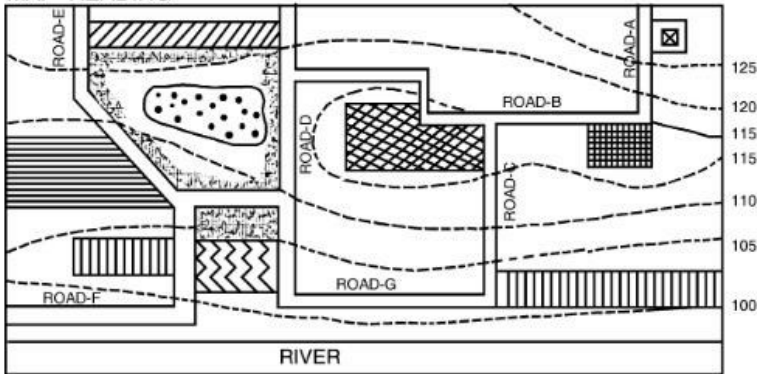
- A Wealth, Education
- B Equality, Sustainability
- C Equity, Wealth
- D Money, Sustainability

Q:105

Topic Name: Planning – Part III

ItemCode:521105

MAP READING



Legend :

- | | |
|----------------|------------|
| CONTOUR | WATER BODY |
| TEMPLE | MARKET |
| POLICE STATION | HOSPITAL |
| SCHOOL | PLAYGROUND |
| RESIDENCES | VEGETATION |



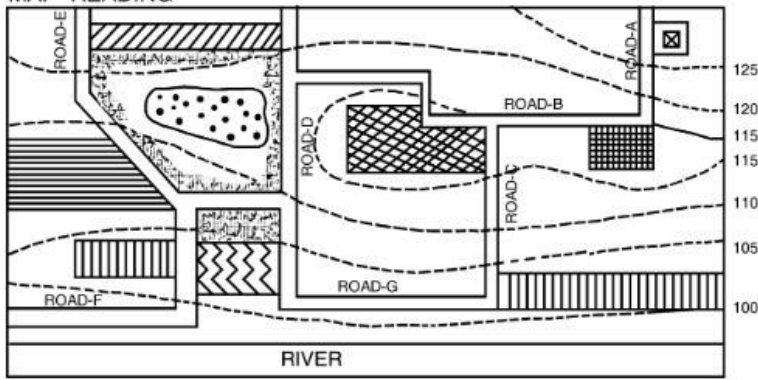
Question: In the given drawing, hospital is located at a level:

- A 5 m higher than Police Station
- B 5 m lower than Temple
- C Same level as Residences
- D 5 m higher than Residences

Q:106

Topic Name: Planning – Part III

MAP READING



Legend :

- | | |
|----------------|------------|
| CONTOUR | WATER BODY |
| TEMPLE | MARKET |
| POLICE STATION | HOSPITAL |
| SCHOOL | PLAYGROUND |
| RESIDENCES | VEGETATION |



In the given drawing, for a person to travel from hospital to temple, one will have to move in _____ direction.

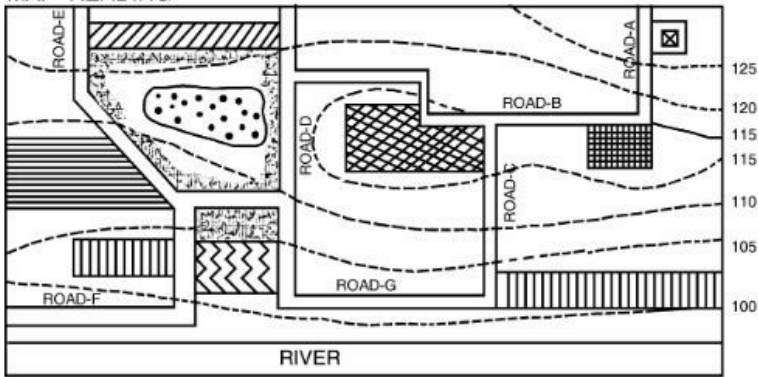
Question:

- A Nort-East
- B East
- C South-West
- D West

Q:107

Topic Name:Planning – Part III

MAP READING



Legend :

- | | |
|----------------|------------|
| CONTOUR | WATER BODY |
| TEMPLE | MARKET |
| POLICE STATION | HOSPITAL |
| SCHOOL | PLAYGROUND |
| RESIDENCES | VEGETATION |



Question: With reference to the given drawing, choose the correct statement:

- A Slope of the land on which temple is located is flatter than the slope of land on which Police Station is located
- B Slope of land on which playground is located is same as the slope of land on which residences are located
- C Slope of land on which hospital is located is steeper than the slope of land on which temple is located
- D Slope of land on which Police Station is located is steeper than the slope of land on which school is located