

Q:1

Topic Name: Mathematics – Part I-Section A

ItemCode:121

The equation of the plane passing through the intersection of the planes

$$\vec{r} \cdot (\hat{i} + 2\hat{j} - \hat{k}) = 3 \text{ and } \vec{r} \cdot (2\hat{i} - \hat{j} + 3\hat{k}) = 2, \text{ and parallel to the line}$$

$$\frac{x-1}{1} = \frac{y-2}{2} = \frac{z-3}{1}, \text{ is}$$

Question:

A  $\vec{r} \cdot (-5\hat{i} + 10\hat{j} - 15\hat{k}) = 4$

B  $\vec{r} \cdot (-5\hat{i} + 10\hat{j} - 15\hat{k}) = 1$

C  $\vec{r} \cdot (-9\hat{i} + 6\hat{j} - 3\hat{k}) = 4$

D  $\vec{r} \cdot (-9\hat{i} + 6\hat{j} - 3\hat{k}) = 1$

Q:2

Topic Name: Mathematics – Part I-Section A

ItemCode:122

Let  $f, g: \mathbb{R} \rightarrow \mathbb{R}$  be functions defined by  $f(x) = x - 7$  and  $g(x) = [7 + \sin x]$ , where  $[t]$  is the greatest integer less than or equal to  $t$ . Then the number of points in  $[0, \pi]$ ,

Question: where the function  $f \circ g + g \circ f$  is not continuous, is

A 1

B 2

C 3

D 5

Q:3

Topic Name: Mathematics – Part I-Section A

ItemCode:123

Let  $m$  and  $n$  be non-negative integers such that for

$$x \in \left(-\frac{\pi}{2}, \frac{\pi}{2}\right), \tan x + \sin x = m, \tan x - \sin x = n. \text{ Then the possible ordered pair}$$

Question:  $(m, n)$  is

A (2, 1) but not (3, 4)

B (3, 4) but not (2, 1)

C both (2, 1) and (3, 4)

D neither (2, 1) nor (3, 4)

Q:4

Topic Name: Mathematics – Part I-Section A

ItemCode:124

Question: Let  $f(x) = (x + 4)^2 - 4, x \geq -4$ . Then  $\{x : f(x) = f^{-1}(x)\}$  is equal to

A  $\{-4, -3, 3, 4\}$

B  $\{-3, 0, 4\}$

C  $\{-4, 3\}$

D  $\{-4, -3\}$

Q:5

ItemCode: 125

Let  $z$  be a complex number and  $\theta = \tan^{-1} \left( \frac{\operatorname{Im}(z)}{\operatorname{Re}(z)} \right)$  be an acute angle. If

$\arg(z) = \theta - \pi$ ,  $|\operatorname{Re}(z)| = |\operatorname{Re}(1-2i)^{-3}|$  and  $|\operatorname{Im}(z)| = |\operatorname{Im}(1-2i)^{-3}|$ , then

$125 \operatorname{Im} \left( z + \frac{2i}{z} \right)$  is equal to

Question:

- A -2752
- B -1377
- C -1152
- D -627

Q:6

Topic Name: Mathematics – Part I-Section A

ItemCode: 126

Let  $A = [a_{ij}]$ ,  $\det(A) \neq 0$ , and  $B = [b_{ij}]$  be two  $3 \times 3$  matrices. If  $b_{ij} = 3^{i-j} a_{ij}$  for all

Question:  $i, j = 1, 2, 3$  then

- A  $3 \det(A) = \det(B)$
- B  $27 \det(A) = \det(B)$
- C  $\det(A) = \det(B)$
- D  $\det(A) = 27 \det(B)$

Q:7

Topic Name: Mathematics – Part I-Section A

ItemCode: 127

Let  $A$  be a  $3 \times 3$  symmetric matrix with integer entries. If the sum of all the

Question: diagonal elements of  $A^2$  is 2, then the total number of such matrices  $A$  is equal to

- A 12
- B 6
- C 18
- D 24

Q:8

Topic Name: Mathematics – Part I-Section A

ItemCode: 128

If  $(20C_1)^2 + 2(20C_2)^2 + 3(20C_3)^2 + \dots + 20(20C_{20})^2 = K$ , then  $\frac{(20!)^2 K}{40!}$  is equal to

Question:

- A  $\frac{1}{10}$
- B  $\frac{1}{5}$
- C 5
- D 10

Q:9

Topic Name: Mathematics – Part I-Section A

ItemCode: 129

Let  $y = y(x)$  be the solution of the differential equation  $x dy + y dx = xy^2 dx$ , which

Question: passes through  $(1, 1)$ . Then  $y(e^\pi)$  is equal to

- A  $\frac{e^{-\pi}}{1+\pi}$

**B**  $\frac{e^{-\pi}}{1-\pi}$

**C**  $\frac{e^{\pi}}{1+\pi}$

**D**  $\frac{e^{\pi}}{1-\pi}$

Q:10

Topic Name: Mathematics – Part I-Section A

ItemCode: 1210

Let  $f: [-2a, 2a] \rightarrow \mathbb{R}$  be a thrice differentiable function and  $g$  be defined as  $g(x) = f(a+x) + f(a-x)$ . If  $m$  is the minimum number of roots of  $g'(x) = 0$  in the interval  $(-a, a)$  and  $n$  is the minimum number of roots of  $g'''(x) = 0$  in the interval

Question:  $(-a, a)$ , then  $m + n$  is equal to

**A** 1

**B** 2

**C** 4

**D** 5

Q:11

Topic Name: Mathematics – Part I-Section A

ItemCode: 1211

Let  $y = y(x)$  be the solution of the initial value problem  $2x \frac{dy}{dx} = 3xe^{\frac{y}{x}} + 2y$ ,

Question:  $y(1) = \log_e 3$ . Then  $y\left(\frac{1}{e}\right)$  is equal to

**A**  $-\frac{1}{e} \log_e \left(\frac{11}{6}\right)$

**B**  $\frac{1}{e} \log_e \left(\frac{11}{6}\right)$

**C**  $-\frac{2}{e} \log_e \left(\frac{11}{6}\right)$

**D**  $\frac{3}{e} \log_e \left(\frac{11}{6}\right)$

Q:12

Topic Name: Mathematics – Part I-Section A

ItemCode: 1212

Let  $f(t) = \int_0^t e^{x^2} \left( (1+2x^2) \sin x + x \cos x \right) dx$ . Then the value of  $f(\pi) - f\left(\frac{\pi}{2}\right)$  is

Question: equal to

**A**  $-\pi e^{\pi^2/4}$

**B**  $-\frac{\pi}{2} e^{\pi^2/4}$

**C**  $\frac{\pi}{2} e^{\pi^2/4}$

**D**  $\pi e^{\pi^2/4}$

Q:13

Topic Name: Mathematics – Part I-Section A

ItemCode: 1213

Let  $f: [-2, 2] \rightarrow \mathbb{R}$  be defined by  $f(x) = x\sqrt{4-x^2}$ . Then which one of the

Question: following is NOT true?

A  $f$  has two critical points in  $(-2, 2)$

B Minimum value of  $f$  is  $-2$ .

C  $x = -2$  is a local minima.

D  $f$  is increasing in  $(-\sqrt{2}, \sqrt{2})$

Q:14

Topic Name: Mathematics – Part I-Section A

ItemCode: 1214

If the lines  $x + 2y = 1$  and  $x - 3y = 1$  are tangents to a circle, then its centre will lie

Question: on

A  $2x - y = 1$

B  $2x - y = 2$

C  $x^2 - y^2 - 14y - 2x + 14xy + 1 = 0$

D  $x^2 + y^2 + 14y - 2x - 14xy + 1 = 0$

Q:15

Topic Name: Mathematics – Part I-Section A

ItemCode: 1215

The mirror image of the line  $\frac{x-3}{-1} = \frac{y+2}{1} = \frac{z-1}{1}$  with respect to the plane

Question:  $3x - y + 4z = 2$  is

A  $\frac{x}{-1} = \frac{y+1}{1} = \frac{z+3}{1}$

B  $\frac{x}{1} = \frac{y+1}{1} = \frac{z+3}{1}$

C  $\frac{x+1}{-1} = \frac{y}{-1} = \frac{z+2}{1}$

D  $\frac{x+1}{-1} = \frac{y}{-1} = \frac{z+2}{-1}$

Q:16

Topic Name: Mathematics – Part I-Section A

ItemCode: 1216

Let  $\hat{a}$  and  $\hat{c}$  be collinear unit vectors such that  $(\vec{b} - 4\hat{c}) = -9\hat{a}$  for a vector  $\vec{b}$ .

Question: Then  $|\vec{b}|^2$  is equal to :

A 27

B 25

C 21

D 18

Q:17

Topic Name: Mathematics – Part I-Section A

ItemCode: 1217

The probability that two randomly selected distinct 2-digit natural numbers have a

Question: common factor either 2 or 3 is:

A  $\frac{88}{267}$

B  $\frac{95}{267}$

C  $\frac{1}{3}$

D  $\frac{608}{1617}$

Q:18

Topic Name: Mathematics – Part I-Section A

ItemCode: 1218

The value of  $\int_{-1}^2 |x^3 \sin \pi x| dx$  is equal to

Question:

A  $\frac{11}{\pi} - \frac{4}{\pi^2} - \frac{6}{\pi^3}$

B  $\frac{11}{\pi} - \frac{30}{\pi^3}$

C  $\frac{11}{\pi} + \frac{4}{\pi^2} - \frac{6}{\pi^3}$

D  $\frac{11}{\pi} + \frac{30}{\pi^3}$

Q:19

Topic Name: Mathematics – Part I-Section A

ItemCode: 1219

Question: The converse of the logical statement  $(p \wedge (\sim q)) \Rightarrow (p \vee q)$  is equivalent to

A  $p$ B  $q$ C  $\sim p$ D  $\sim q$ 

Q:20

Topic Name: Mathematics – Part I-Section A

ItemCode: 1220

Consider ellipse  $E: \frac{x^2}{9} + \frac{y^2}{4} = 1$  and hyperbola  $H: \frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$ , with eccentricities  $e_1$  and  $e_2$ , respectively. If the hyperbola  $H$  passes through the focus of the ellipse

Question:  $E$  and  $e_1 : e_2 = 1:3$ , then the length of latus rectum of the hyperbola  $H$  is equal to

A  $2\sqrt{5}$

B  $4\sqrt{5}$

C  $8\sqrt{5}$

D  $10\sqrt{5}$

Q:21

Topic Name: Mathematics – Part I-Section B

ItemCode: 1221

Let  $\sqrt{3}x + y = \frac{5\sqrt{3}}{2}$  and  $\sqrt{5}x + y = \frac{7\sqrt{5}}{2}$  be two normal lines to the

parabola  $y^2 = 2x$  at points  $P$  and  $Q$ . If the tangent lines at  $P$  and  $Q$  intersect at the

Question: point  $(a, b)$ , then the value of  $b^2 - a$  is equal to \_\_\_\_\_.

Q:22

Topic Name: Mathematics – Part I-Section B

ItemCode: 1222

If the normal to the curve  $(y - x^5)^2 = x(1 + x^2)^2$  at the point  $(1, 3)$  passes through

Question: the point  $(a, 2)$ , then  $|\alpha|$  is equal to \_\_\_\_\_.

Q:23

Topic Name: Mathematics – Part I-Section B

**ItemCode:1223**

If the system of linear equations

$$2x - 3y + 5z = \beta$$

$$\alpha x + y + 2z = 3$$

$$3x - 16y + 23z = -13$$

**Question:** has infinitely many solutions, then  $\alpha + \beta$  is equal to \_\_\_\_\_.

**Q:24**

**Topic Name:**Mathematics – Part I-Section B

**ItemCode:1224**

Let  $f : \mathbb{N} \rightarrow \mathbb{N}$  be a function defined by

$$f(n) = an^2 + bn + c. \text{ If } f(1) = 3, f(2) = 6 \text{ and } f(n) = \frac{f(n-1) + f(n-2) + 8n^2 - 3}{6}$$

**Question:** for every  $n \geq 3$ , then  $f(100)$  is equal to \_\_\_\_\_.

**Q:25**

**Topic Name:**Mathematics – Part I-Section B

**ItemCode:1225**

If the coefficient of  $x^8$  in the expansion of  $(1 - x^2)^3 (1 + 2x^3)^7 (1 + x^4)^5$  is  $\beta$ ,

**Question:** then  $|\beta|$  is equal to \_\_\_\_\_.

**Q:26**

**Topic Name:**Mathematics – Part I-Section B

**ItemCode:1226**

If for real numbers  $\alpha$  and  $\beta$ ,  $\int \frac{1+x \cos x}{x(1-x^2 e^{2 \sin x})} dx = \alpha \log_e \left| \frac{1}{x^2 e^{2 \sin x}} - \beta \right| + \text{constant}$ ,

**Question:** then the value of  $10(\alpha + \beta)$  is equal to \_\_\_\_\_.

**Q:27**

**Topic Name:**Mathematics – Part I-Section B

**ItemCode:1227**

If the mean and variance of the observations 2, 6,  $\alpha$ , 10, 12,  $\beta$ , 15 are 9 and 18

**Question:** respectively, then  $\alpha\beta$  equals \_\_\_\_\_.

**Q:28**

**Topic Name:**Mathematics – Part I-Section B

**ItemCode:1228**

The number of real solutions of the equation  $e^{4x} + 4e^{3x} - e^{2x} - 10e^x + 6 = 0$  is

**Question:** equal to \_\_\_\_\_.

**Q:29**

**Topic Name:**Mathematics – Part I-Section B

**ItemCode:1229**

Let  $A_1, A_2, A_3, \dots$  be an increasing G.P. of positive real numbers. If

**Question:**  $A_6 = 49A_2$  and  $A_6 + A_3A_5 = 8$ , then  $A_7 (A_1 + A_3)$  is equal to \_\_\_\_\_.

**Q:30**

**Topic Name:**Mathematics – Part I-Section B

**ItemCode:1230**

Suppose that  $\vec{a}, \vec{b}$  and  $\vec{c}$  are non-coplanar vectors in  $\mathbb{R}^3$ . Let the components of a

vector  $\vec{n}$  along  $\vec{a}, \vec{b}$  and  $\vec{c}$  be 2, 5 and 3 respectively. If the components of this

vector  $\vec{n}$  along  $\vec{a} + 2\vec{b} - \vec{c}, -2\vec{a} + \vec{b} + \vec{c}$  and  $\vec{a} - \vec{b} - 2\vec{c}$  are  $x, y$  and

**Question:**  $z$  respectively, then the value of  $x + y - 4z$  is equal to \_\_\_\_\_.

**Q:31**

**Topic Name:**Aptitude Test – Part II



ItemCode:41231

'Amar Jawan Jyoti' which was conceptualised & constructed after Indo-Pakistan

Question: war of 1971, is now merged with flame of...

- A New Parliament Building
- B National War Memorial
- C Wagah Border, Punjab
- D Rastrapati Bhawan

Q:32

Topic Name:Aptitude Test – Part II

ItemCode:41232

Which amongst the following author has wrote the famous book "The Death and

Question: Life of Great American Cities".

- A Charles Comea
- B Richard Meier
- C Laurie Baker
- D Jane Jacob

Q:33

Topic Name:Aptitude Test – Part II

ItemCode:41233

"The Hall of Nations" in Pragati Maidan at New Delhi was designed essentially a three dimensional space with unit of-



Question:

- A A spheroid
- B A Decahedron
- C An Octahedron
- D A Tetrahedron

Q:34

Topic Name:Aptitude Test – Part II

ItemCode:41234

Question: Write the full form of 'CPCB'.

- A Center Polluted Control Board
- B Central Pollution Control Board
- C Central Polluted and Control Board
- D Center for Pollution and Climate Board

Q:35

Topic Name:Aptitude Test – Part II

ItemCode:41235

The Basilica of Bom Jesus, a UNESCO world heritage site is located in which

Question: state of India ?

- A Daman
- B Kerala

- C Goa
- D Andaman and Nicobar Island

Q:36

Topic Name:Aptitude Test – Part II

ItemCode:41236

Question: The 'Vitruvian Man' is a drawing made by...

- A Rambrant
- B Raphael
- C Leonardo da Vinci
- D Picasso

Q:37

Topic Name:Aptitude Test – Part II

ItemCode:41237

Question: In which of the following Indian state 'The Garo-Khasi range' is located.

- A Mizoram
- B Meghalaya
- C Nagaland
- D Manipur

Q:38

Topic Name:Aptitude Test – Part II

ItemCode:41238

Buildings situated in hills will required to consider which of the following phenomeanas, primarily?

Question: (a) Tsunami (b) Hail (c) High Tide (d) Land slide (e) Dust storm (f) Snow

- A b, c, d
- B b, e, f
- C b, d, f
- D a, b, f

Q:39

Topic Name:Aptitude Test – Part II

ItemCode:41239

Question: 'Vienna Peace Congress' was held during which of the following years?

- A 1813-1814
- B 1814-1815
- C 1815-1816
- D 1812-1813

Q:40

Topic Name:Aptitude Test – Part II

ItemCode:41240

Question: Which of the following is the longest river of the peninsular India ?

- A Narmada
- B Godavari
- C Mahanadi
- D Tapi

Q:41

Topic Name:Aptitude Test – Part II



ItemCode:41241

Question: At the summer solstice, the sun rises in which direction?

- A East
- B West
- C Far to the North-East
- D Far North-West

Q:42

Topic Name: Aptitude Test – Part II

ItemCode:41242

Match the Architectural style given in List-I with the famous Building in List-II

- | List-I                        | List-II                             |
|-------------------------------|-------------------------------------|
| A. Industrial Building Style  | I. The Burlin Brain Library, Burlin |
| B. Brutalist Style            | II. Westminster Abbey               |
| C. Biotechnology Style        | III. Eiffel Tower                   |
| D. Gothic Architectural Style | IV. Secretariat Building, Chandigar |

Question: Choose the correct option.

- 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-I, C-II, D-III

Q:43

Topic Name: Aptitude Test – Part II

ItemCode:41243

Given below are two statements-

Statement-I: Taj Mahal is placed on the northern extremity of the bagh instead of middle to take advantage of the river bank.

Statement II: The white Marble of Taj Mahal is used to achieve contrast with the red sandstone of the surrounding structures.

Question:

- 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
- D Statement I is not correct but Statement II is correct

Q:44

Topic Name: Aptitude Test – Part II

ItemCode:41244

Question: How many minimum points are required to connect to create a 2D plane?

- A One
- B Three
- C Two
- D Four

Q:45

Topic Name: Aptitude Test – Part II

ItemCode:41245

An external wall of a room has 4 opening for windows (i.e. A, B, C, D). size of A and B are same i.e. having width of 1.0 m and height 1.5 m. Height of C and D is same as of A and B. Width of C is 2.5 m, what is the width of D, if total opening

Question: area is  $9 \text{ m}^2$ .

- A 1.0 m
- B 1.5 m

C 2.5 m

D 2.0 m

Q:46

Topic Name:Aptitude Test – Part II

ItemCode:41246

Prestigious international Aga Khan award winning project, 'Slum Networking', a

Question: community driven approach, at Indore is designed by \_\_\_?

A Himanshu Parikh

B Uttam Jain

C Hasmukh Patel

D Neelam Manjunath

Q:47

Topic Name:Aptitude Test – Part II

ItemCode:41247

'The Garden of the Heart' documentary is based on which of the following

Question: renowned architect ?

A Santiago Calatrava

B Renzo Piano

C Kisho Kurokawa

D Joseph Allen Stein

Q:48

Topic Name:Aptitude Test – Part II

ItemCode:41248

List-I

List-II

A.



I. India Habitat Centre by Stein Joseph

B.



II. Guggenheim Museum by Frank Lloyd wright

C.



III. Modern school, New Delhi by Jasbir Sachdev & Rosmerry Sachdev

D.



IV. Heydear Aliyev Centre by Zaha Hadid

Question:

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

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

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

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

Q:49

Topic Name:Aptitude Test – Part II

ItemCode:41249

Identify the missing number in given image.

|    |     |    |
|----|-----|----|
| 36 | 100 | 16 |
| 49 | 100 | 9  |
| 64 | ?   | 25 |

Question:

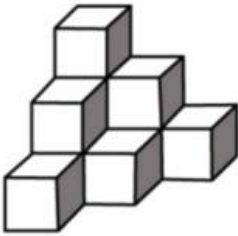
- A 100
- B 169
- C 122
- D 121

Q:50

Topic Name:Aptitude Test – Part II

ItemCode:41250

Identify the number of cubes in given question image.



Question:

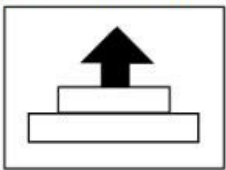
- A 12
- B 10
- C 11
- D 07

Q:51

Topic Name:Aptitude Test – Part II

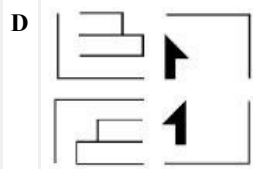
ItemCode:41251

Answer figure shows four parts of an image. After joining these four parts which answer figure will show the exact copy of the question figure ?



Question:

- A
- B
- C

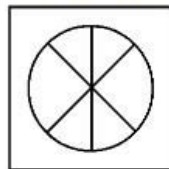
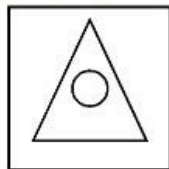
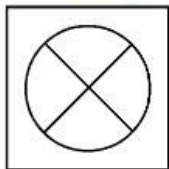


Q:52

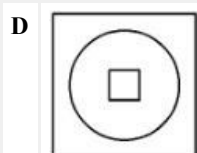
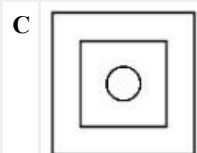
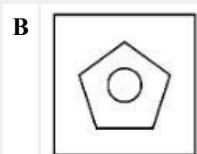
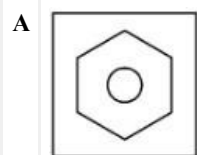
Topic Name:Aptitude Test – Part II

ItemCode:41252

Understand the relationship between 1 and 2. Choose the missing figure from the given options, such that a similar relationship is established between 3 and 4.



Question:

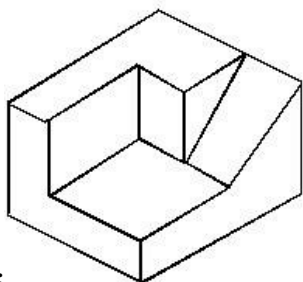


Q:53

Topic Name:Aptitude Test – Part II

ItemCode:41253

Find out the number of surfaces of given 3D object in question figure.



Question:

A 11

B 9

C 12

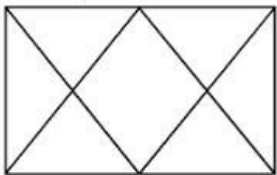
D 10

Q:54

Topic Name:Aptitude Test – Part II

ItemCode:41254

Identify the total number of triangles in question figure given below ?



Question:

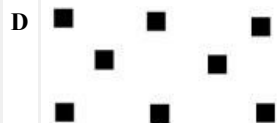
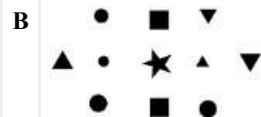
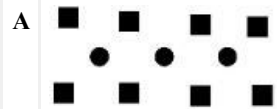
- A 12
- B 14
- C 16
- D 06

Q:55

Topic Name:Aptitude Test – Part II

ItemCode:41255

Question: Which of the following compositions best suits for 'Variety'?

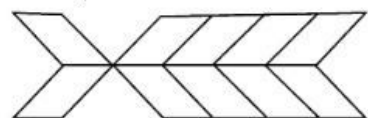


Q:56

Topic Name:Aptitude Test – Part II

ItemCode:41256

Identify the total number of rectangles in given image.



Question:

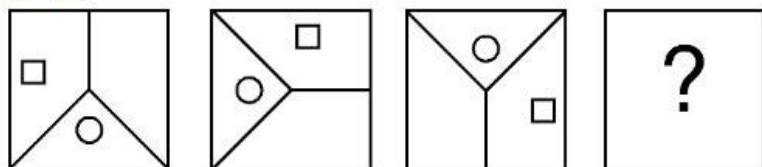
- A 20
- B 22
- C 10
- D 16

Q:57

Topic Name:Aptitude Test – Part II

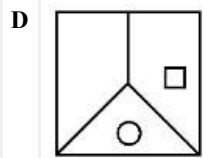
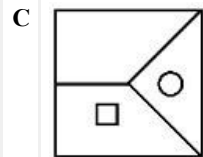
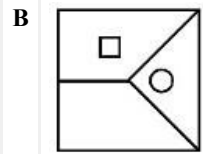
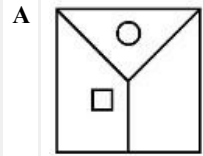
ItemCode:41257

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



Question:





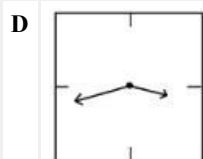
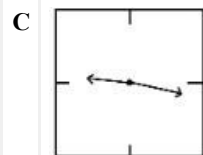
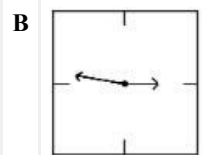
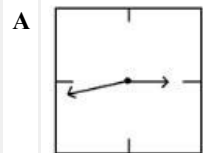
Q:58

Topic Name:Aptitude Test – Part II

ItemCode:41258

Shown below are mirror images of wall clock. Which one of the options shows

Question: time 21.16 correctly ?

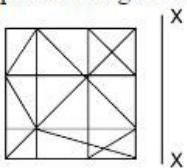


Q:59

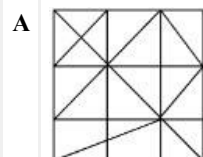
Topic Name:Aptitude Test – Part II

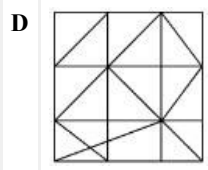
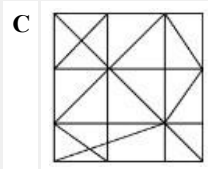
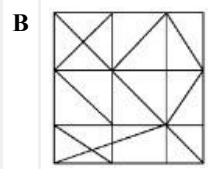
ItemCode:41259

Which one of the answer figure is the most appropriate mirror image of the problem figure with respect to 'X-X'?



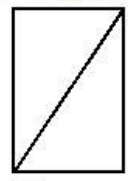
Question:



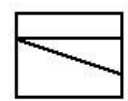


**Q:60**  
**Topic Name:** Aptitude Test – Part II

**ItemCode:** 41260  
 Question figure shows top view/plan, Front elevation and Right side elevation of the same object. Identify the most appropriate 3D view of this object from given answer figures.



Top



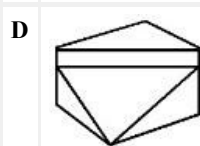
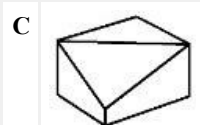
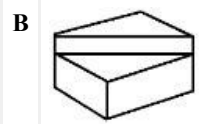
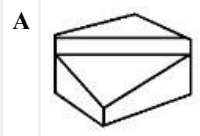
Front



Right side

**Question:** elevation

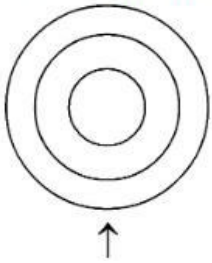
elevation



**Q:61**  
**Topic Name:** Aptitude Test – Part II

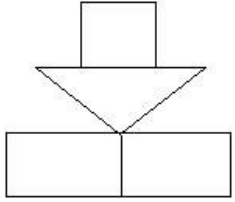
ItemCode:41261

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

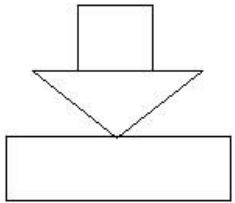


Question:

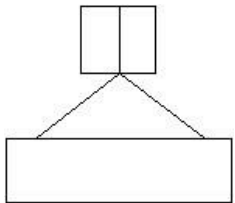
A



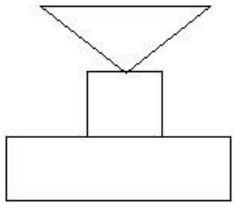
B



C



D



Q:62

Topic Name:Aptitude Test – Part II

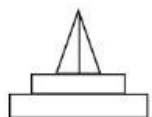
ItemCode:41262

Question figure shows plan of an object. Looking in the direction of arrow identify the correct elevation from given answer figures.

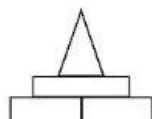


Question:

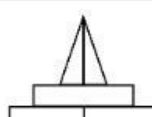
A



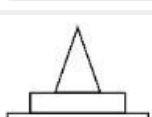
B



C



D

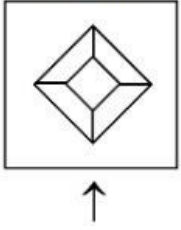


Q:63

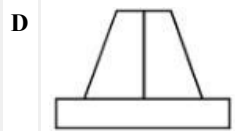
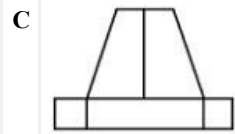
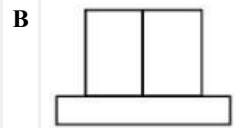
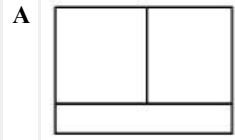
Topic Name:Aptitude Test – Part II

ItemCode:41263

Question figure shows plan of an object. Looking in the direction of arrow, identify the correct elevation from given answer figures.



Question:

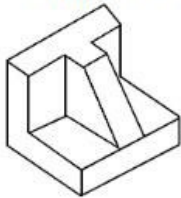


Q:64

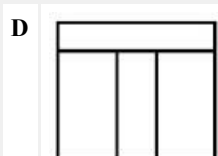
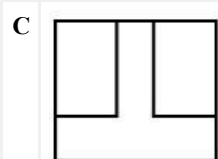
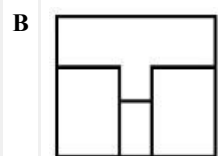
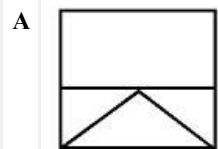
Topic Name:Aptitude Test – Part II

ItemCode:41264

Question figure shows 3D view of an object. Identify the most appropriate top view/plan of given 3D object from answer figures.



Question:

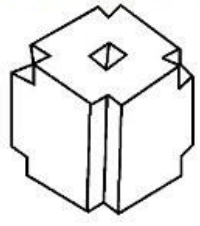


Q:65

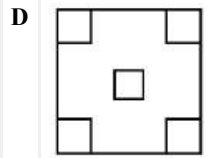
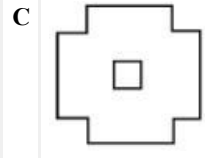
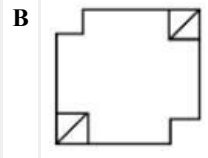
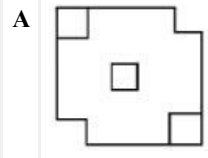
Topic Name:Aptitude Test – Part II

ItemCode:41265

Question figure shows 3D view of an object. Identify the correct top view/plan of given 3D object from answer figures.



Question:

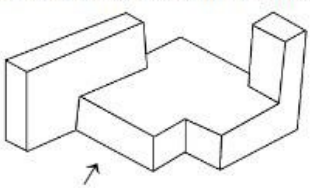


Q:66

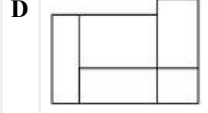
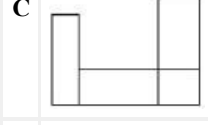
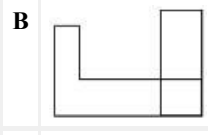
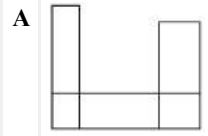
Topic Name:Aptitude Test – Part II

ItemCode:41266

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



Question:



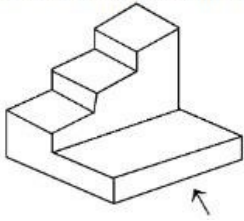
Q:67

Topic Name:Aptitude Test – Part II



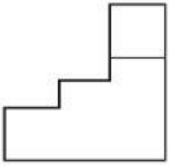
ItemCode:41267

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

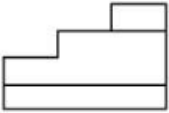


Question:

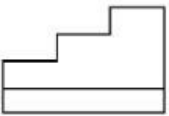
A



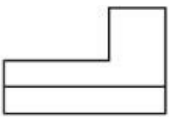
B



C



D

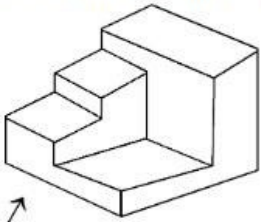


Q:68

Topic Name:Aptitude Test – Part II

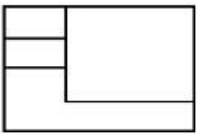
ItemCode:41268

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

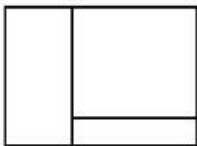


Question:

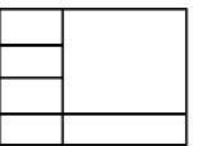
A



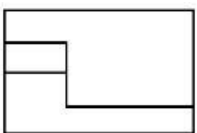
B



C



D

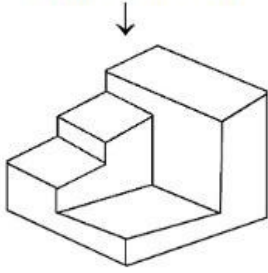


Q:69

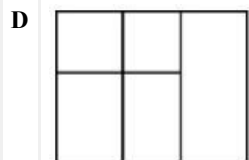
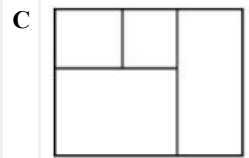
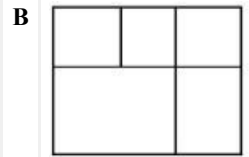
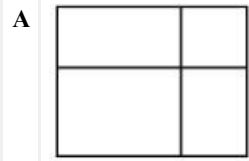
Topic Name:Aptitude Test – Part II

ItemCode:41269

Question figure shows 3D view of an object. Identify the most appropriate top view/plan of the object, from given answer figures.



Question:

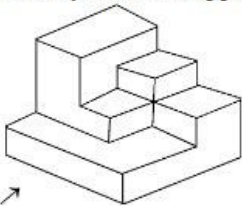


Q:70

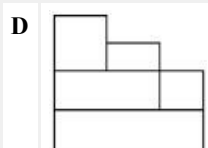
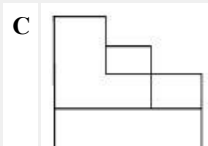
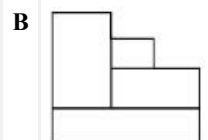
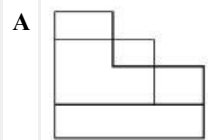
Topic Name:Aptitude Test – Part II

ItemCode:41270

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



Question: →

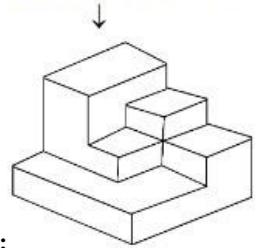


Q:71

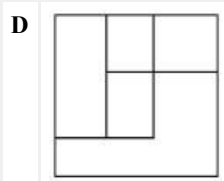
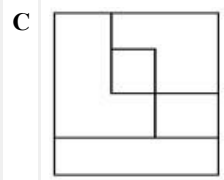
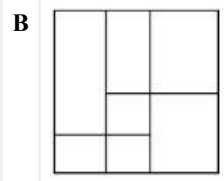
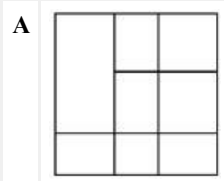
Topic Name:Aptitude Test – Part II

ItemCode:41271

Question figure shows 3D view of an object. Identify the correct top view/plan of an object from given answer figures.



Question:

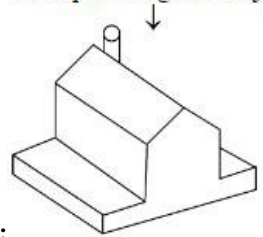


Q:72

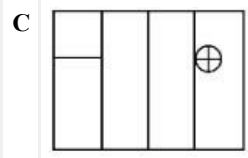
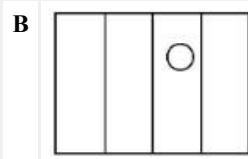
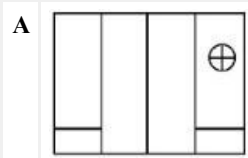
Topic Name:Aptitude Test – Part II

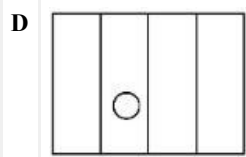
ItemCode:41272

Question figure shows 3D view of an object. Identify the most appropriate top view/plan of given object from answer figures.



Question:

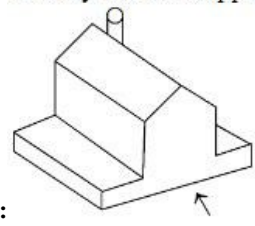




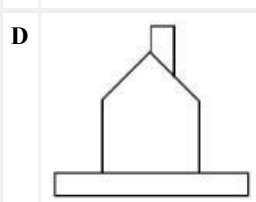
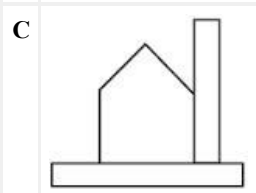
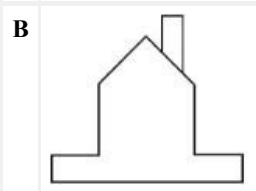
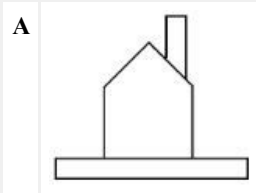
**Q:73**  
**Topic Name:** Aptitude Test – Part II

**ItemCode:** 41273

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



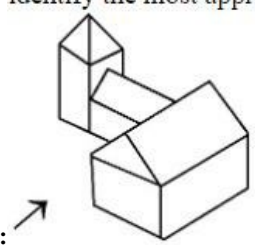
**Question:**



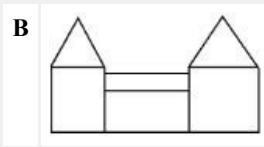
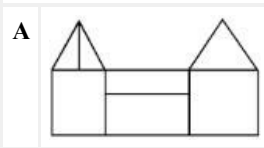
**Q:74**  
**Topic Name:** Aptitude Test – Part II

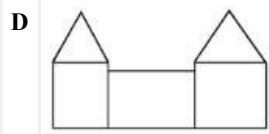
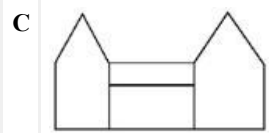
**ItemCode:** 41274

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



**Question:**



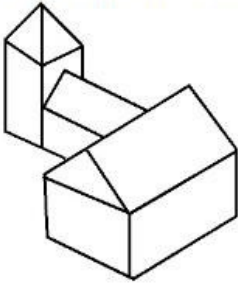


Q:75

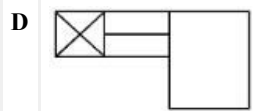
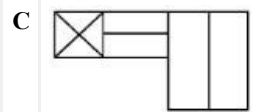
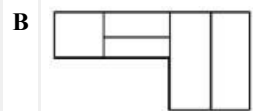
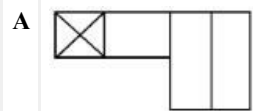
Topic Name: Aptitude Test – Part II

ItemCode: 41275

Question figure shows 3D view of an object. Identify the correct top view, plan of given object from answer figures.



Question:

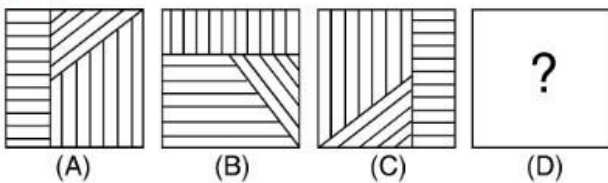


Q:76

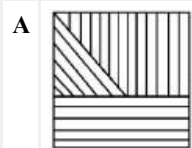
Topic Name: Aptitude Test – Part II

ItemCode: 41276

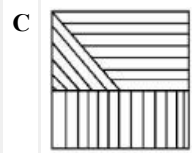
In the question figure A and B have certain relation. Choose one of the answer figures from given options, so that similar relation will be established between C and D.



Question:





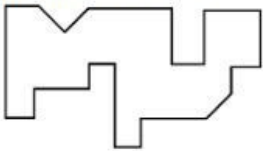


Q:77

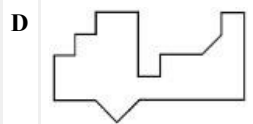
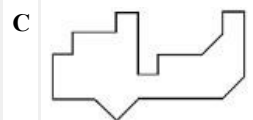
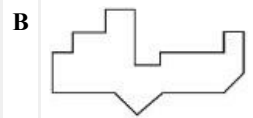
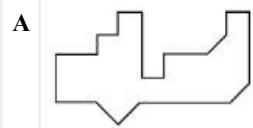
Topic Name:Aptitude Test – Part II

ItemCode:41277

Which of the following answer figures will perfectly interlock with the bottom of the question figure.



Question:

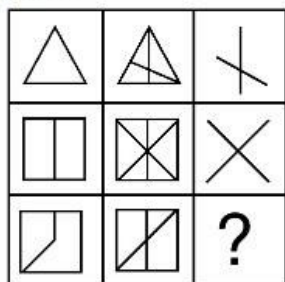


Q:78

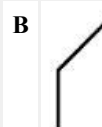
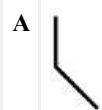
Topic Name:Aptitude Test – Part II

ItemCode:41278

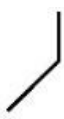
Find out which of the answer figures completes the matrix sequence of question figure.



Question:



D

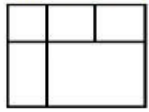


Q:79

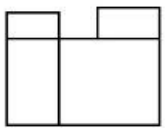
Topic Name:Aptitude Test – Part II

ItemCode:41279

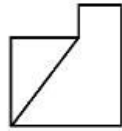
Question figure shows top view/plan, front elevation and right hand side elevation of an object. Identify the most appropriate 3D view of this object.



TOP



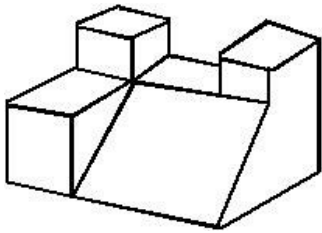
FRONT



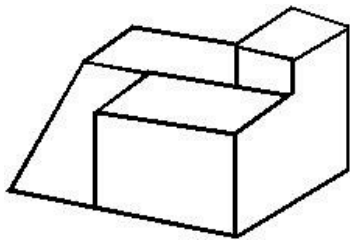
RIGHT SIDE

Question:

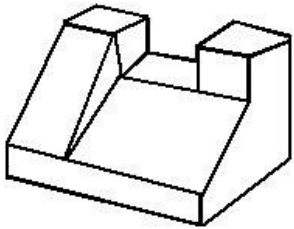
A



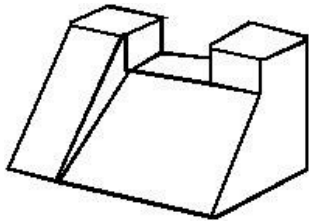
B



C



D



Q:80

Topic Name:Aptitude Test – Part II

ItemCode:41280

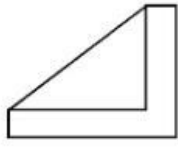
Question figure shows top view/plan, front elevation and right hand side elevation of an object. Identify the most appropriate 3d view of this object.



TOP



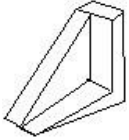
FRONT



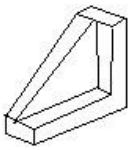
RIGHT SIDE

Question:

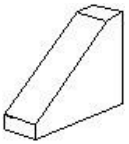
A



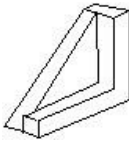
B



C



D



Q:81

Topic Name:Drawing Test – Part III

ItemCode:41281

Draw a proportionate sketch of given reference image. Use any black & white rendering technique for shading.



Question:

Q:82

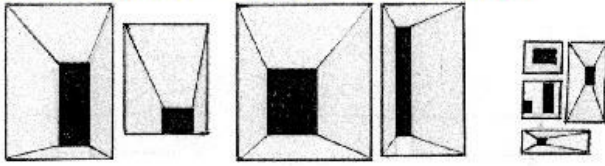
Topic Name:Drawing Test – Part III

ItemCode:41282

Draw a picture of any sports event you have attended. Use colours of your choice to render the picture.

OR

Using given figure of various sizes create a Jali partition of suitable size. Use colours of your choice to render the composition.



Question:

Q:83

Topic Name:Planning – Part III

ItemCode:52283

Question: Which city amongst the following cities is not a presidency city of colonial India.

- A Bombay
- B Delhi
- C Calcutta
- D Madras

Q:84

Topic Name:Planning – Part III

ItemCode:52284

Match List I with List II

List I

- A. Swachh Bharat Mission
- B. Jawahar Nehru National Urban Renewal Mission
- C. Smart City

List II

- I. 2015
- II. 2014
- III. 2005
- IV. 1998

Question: D. National Housing and Habital Policy

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

Q:85

Topic Name:Planning – Part III

ItemCode:52285

Question: PPP Stands for:

- A Push Pull Plan
- B Parent Partnership Program
- C Public Private Partnership
- D People Private Partnership

Q:86

Topic Name:Planning – Part III

ItemCode:52286

Question: Which of the following is the lowest Land point on the earth.

- A Marina Trench
- B Dead Sea
- C Capetown
- D Bali

Q:87

Topic Name: Planning – Part III

ItemCode: 52287

The Prime minister, Union cabinet minister, chief minister and council of ministers

Question: are member of-

- A National Development Council
- B Regional Council
- C Planning Commission
- D Zonal Council

Q:88

Topic Name: Planning – Part III

ItemCode: 52288

Question: Identify the appropriate sector of economy for 'Education Activity'.

- A Quaternary
- B Primary
- C Secondary
- D Tertiary

Q:89

Topic Name: Planning – Part III

ItemCode: 52289

Who amongst the following was appointed as first Town Planning Advisor to

Question: Government of India.

- A H.V. Lancaster
- B Le - Corbusier
- C Petric Geddes
- D Swinton Jacob

Q:90

Topic Name: Planning – Part III

ItemCode: 52290

Question: HUDCO Stands for:

- A Haryana Urban Development Corporation
- B Housing in Urban Delhi and Community Development
- C Housing and Urban Development Corporation LTD
- D Housing for Urban dwellers and Community Organization

Q:91

Topic Name: Planning – Part III

ItemCode: 52291

As per UNCHS three most significant factors responsible for urban growth are

- (A). Economic and Industrial Policies
- (B). Changes in Political set up
- (C). Changes in Legal/Administrative status

Question: (D). Improvement in quality of life in cities.

- A A, B, C Only
- B B, C, D Only
- C A, C, D Only
- D A, B, D Only

Q:92

Topic Name: Planning – Part III

ItemCode:52292

The inequality between duration of day and night become greater or more, marked

Question: when we travel from \_\_\_\_ to \_\_\_\_

- A East to West
- B Tropic of cancer to tropic of capricorn
- C Equator to Poles
- D West to East

Q:93

Topic Name:Planning – Part III

ItemCode:52293

Question: Oldest continuously inhabited city in India.

- A Varanasi
- B Ayodhya
- C Dwarka
- D Puri

Q:94

Topic Name:Planning – Part III

ItemCode:52294

Given below are two statements:

Statement I : Jawahar Lal Nehru Urban Renewal Mission (JNNURM) is a sponsored scheme of central govt.

Statement II : For large cities, the financial contribution by central government and

Question: urban, local bodies 50%, 20% and 30% respectively under JNNURM Scheme.

- 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
- D Statement I is not correct but statement II is correct

Q:95

Topic Name:Planning – Part III

ItemCode:52295

Question: Which one of the following lakes is a manmade lake ?

- A Dal
- B Wular
- C Gobind sagar
- D Sambhar

Q:96

Topic Name:Planning – Part III

ItemCode:52296

Question: Identify the factor which does not affect economic development.

- A Natural Resources
- B Male - Female Ratio
- C Human Resources
- D Technology

Q:97

Topic Name:Planning – Part III



ItemCode:52297

Given below are two statements :

Statement I : The duration of Jawahar Lal Nehru Renewal Mission was 7 years.

Question: Statement II : The number of cities covered under JNNURM is 59.

- 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
- D Statement I is not correct but statement II is correct

Q:98

Topic Name:Planning – Part III

ItemCode:52298

Match List I with List II

| List I                      | List II     |
|-----------------------------|-------------|
| Land Uses                   | Color coaks |
| (A). Commercial             | I. Yellow   |
| (B). Open Spaces            | II. Red     |
| (C). Public and semi public | III. Blue   |
| (D). Residential            | IV. Green   |

Question:

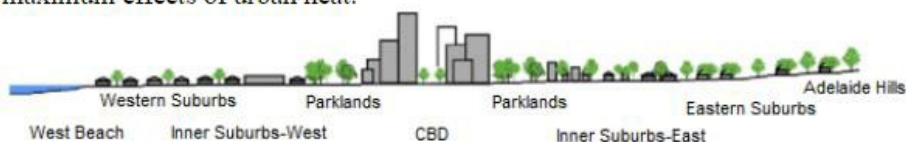
- A A-IV, B-III, C-I, D-II
- B A-III, B-IV, C-II, D-I
- C A-I, B-II, C-III, D-IV
- D A-II, B-I, C-IV, D-III

Q:99

Topic Name:Planning – Part III

ItemCode:52299

Urban heat is highly dependent to solar radiation and temperature drops significantly after sunset. In the given figure, Identify which area will have maximum effects of urban heat.



Question: Averaged near-surface temperature profile of Adelaide measured between 26 July and 15 August 2013.

- A Eastern suburbs
- B CBD
- C Parklands
- D Western Suburbs

Q:100

Topic Name:Planning – Part III

ItemCode:522100

The housing stock of a town has total number of 90-90 dwelling units. Present population of the town is 45,450. Assuming an average household size of 4.5, the

Question: housing shortage in percentage is-

- A 14
- B 12
- C 10
- D 11

Q:101

Topic Name:Planning – Part III



**ItemCode:522101**

Since the conflict began less than a week ago, more than 6,00,000 people have fled Ukraine and millions more are displaced inside the country. UNHCR estimates that more than four million people could flee Ukraine and seek protection and support across the region. The inter-agency Regional Refugee Response Plan is driven by four key objectives: support host countries to ensure every refuge has access to safety and international protection ensuring host countries are able to provide timely and life-saving humanitarian assistance for refugees and third country nationals; facilitate a whole-of-society approach for solutions; ensure effective coordination among partners at the country and regional level.

**Question:** What is UNHCR stands for in this paragraph?

- |   |   |
|---|---|
| A | United Nations Higher Committee for Residents |
| B | United Nations Higher Commission for Region   |
| C | United Nations High Commissioner for Refugees |
| D | United Nations Higher Committee for Refugees  |

**Q:102**

**Topic Name:**Planning – Part III

**ItemCode:522102**

Since the conflict began less than a week ago, more than 6,00,000 people have fled Ukraine and millions more are displaced inside the country. UNHCR estimates that more than four million people could flee Ukraine and seek protection and support across the region. The inter-agency Regional Refugee Response Plan is driven by four key objectives: support host countries to ensure every refuge has access to safety and international protection ensuring host countries are able to provide timely and life-saving humanitarian assistance for refugees and third country nationals; facilitate a whole-of-society approach for solutions; ensure effective coordination among partners at the country and regional level.

**Question:** What is UNHCR stands for in this paragraph?

- |   |         |
|---|---------|
| A | Romania |
| B | Germany |
| C | Russia  |
| D | NATO    |

**Q:103**

**Topic Name:**Planning – Part III

Match the following:

**List I**

**List II**

I. Cadiz, Spain



II. Sun city USA



III. Toledo



IV. Barcelone



**Question:**

A I-d, II-c, III-a, IV-b

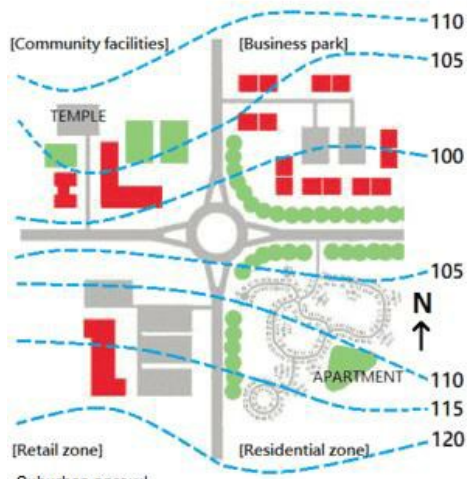
B I-c, II-d, III-a, IV-b

C I-a, II-b, III-c, IV-d

D I-b, II-a, III-c, IV-d

ItemCode:522104

In given figure which zone is on North-West direction



Question: Suburban sprawl

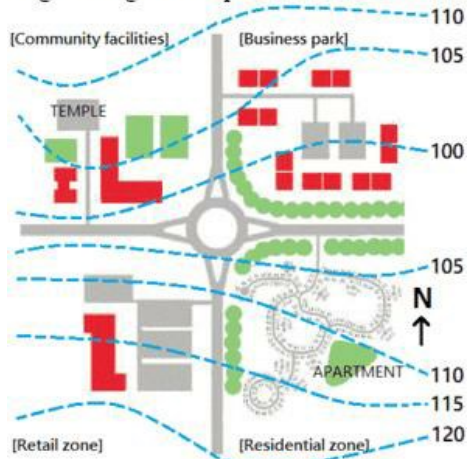
- A Retail
- B Residential
- C Community Facilities
- D Business Park

Q:105

Topic Name: Planning – Part III

ItemCode:522105

In given figure temple is situated at:



Question: Suburban sprawl

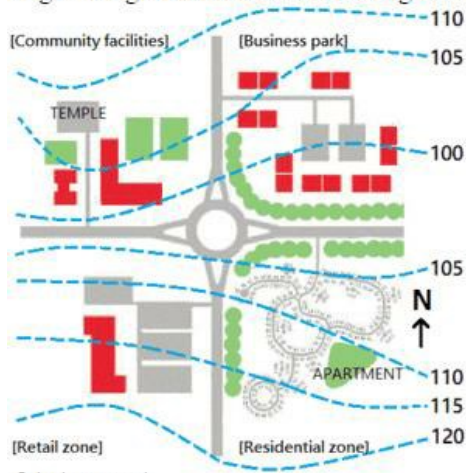
- A 5 m higher than round about
- B 10 m higher than round about
- C 5m higher than Residential zone
- D 5 m lower than Business Park

Q:106

Topic Name: Planning – Part III

ItemCode:522106

In given figure which area is having cul-de-sacs.



Question: Suburban sprawl

- A Retail Zone
- B Business Park Zone
- C Residential Zone
- D Community Facilities

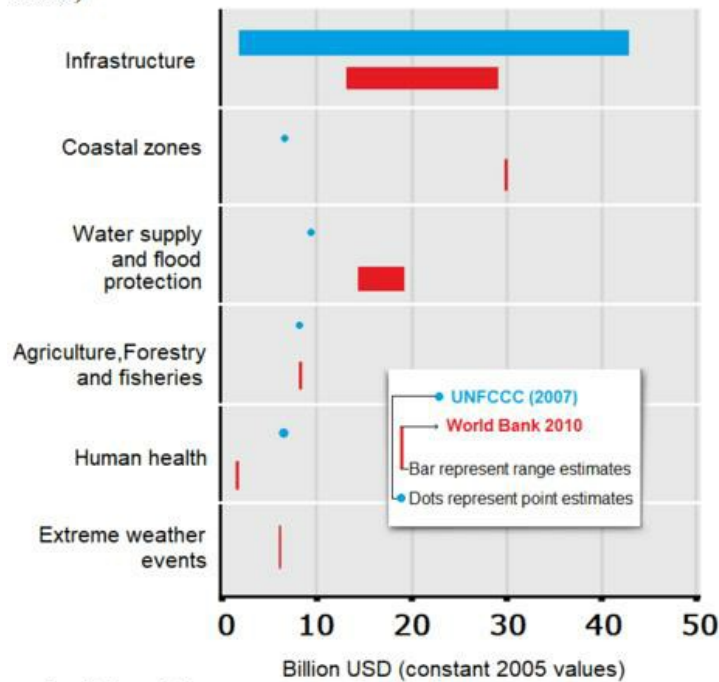
Q:107

Topic Name: Planning – Part III

ItemCode:522107

Statement I : Infrastructure is really expensive due to adoption of climate change in developing countries.

Statement II : The world bank predict that shoring up coastal zones will cost \$ 40 billion, while the UNFCCC predicts a \$ 5 billion price tag (both based on 2005 US dollar)



In the light of the statements, choose the most appropriate answer from the 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
- D Statement I is not correct but statement II is correct