PhysicsByAaryan

CSIR NET . GATE . JEST . BARC - Physics

CSIR NET Physics - General Aptitude

All PYQs (2015-2025) with answer key

380 questions . Answer key included

www.physicsbyaaryan.com . www.csirnetphysics.com
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Q1. [Dec 2015] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2015 Dec	2 M

In each of the following groups of words is a hidden number, based on which you should arrange them in descending order. Pick the correct answer:

E. Papers I Xeroxed

F. Wi-Fi veteran

G. Yourself ourselves

H. Breaks even

1. H, F, G, H
2. E, G, F, H
3. H, F, G, E
4. H, E, F, G

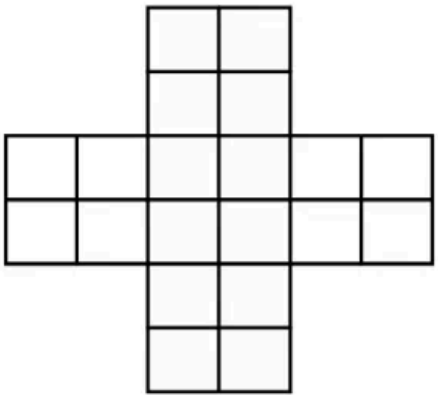
Q2. [Dec 2015] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2015 Dec	2 M

The number of squares in the figure is

1. 30
2. 29
3. 25
4. 20



Q3. [Dec 2015] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2015 Dec	2 M

A shopkeeper purchases a product for Rs. 100 and sells it making a profit of 10%. In these dealings the shopkeeper makes

1. No profit, no loss
2. Rs. 11
3. Re. 1
4. Rs. 20

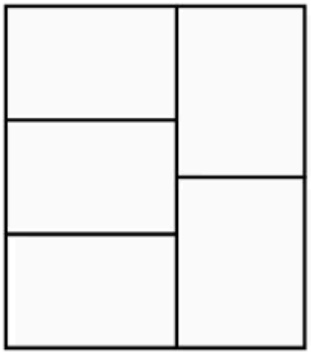
Q4. [Dec 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 Dec	2 M

Five congruent rectangles are drawn inside a big rectangle pf perimeter 165 as shown. What is the perimeter of one of the five rectangles?

1. 37
2. 75
3. 15
4. 165



Q5. [Dec 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 Dec	2 M

A person walks downhill at $10km/h$, uphill at $6km/h$ and on the plane at $7.5km/h$. If the person takes 3 hours to go from a place A to another place B, and 1 hour on the way back, the distance between A and B is

1. $15km$
2. 23.5 km
3. 16 km
4. Given data is insufficient to calculate distance.

Q6. [Dec 2015] . 2.0 marks

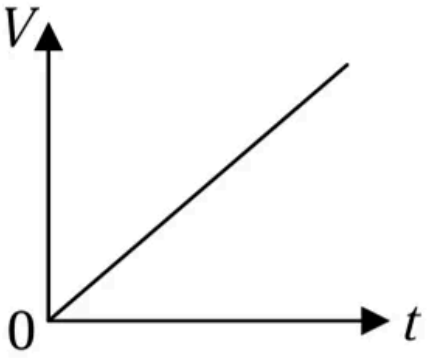
General Aptitude > Basic Physics

CSIR NET	2015 Dec	2 M

A vessel is partially filled with water. More water is added to it at a rate directly proportional to time

[i.e., $\frac{dV}{dt} \propto t$]. Which of the following graphs depicts correctly the variation of total volume V of water with time t ?

1.



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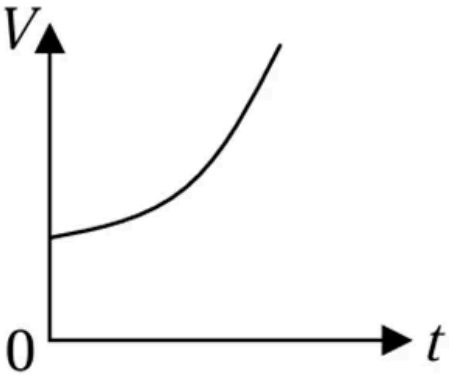

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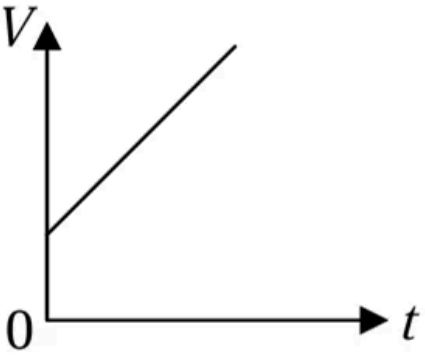

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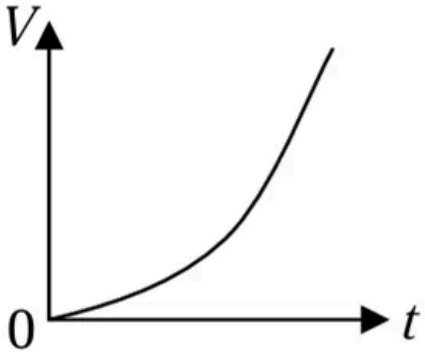


Q7. [Dec 2015] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2015 Dec	2 M

At one instant, the hour hand and the minute hand of a clock are one over the other in between the markings for 5 and 6 on the dial. At this instant, the tip of the minute hand

1. is closer to the marking for 6
2. is equidistant from the markings for 5 and 6
3. is closer to marking for 5
4. is equidistant from the markings for 11 and 12

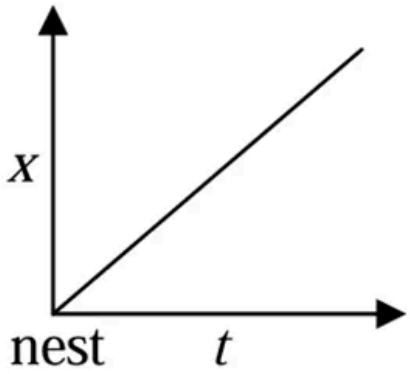
Q8. [Dec 2015] . 2.0 marks

General Aptitude > Basic Physics

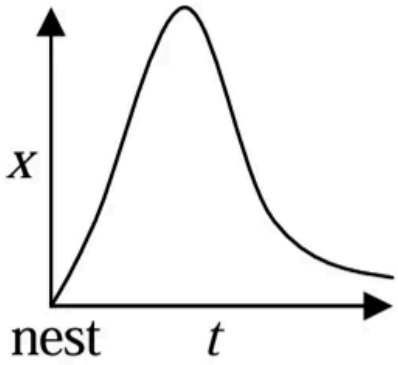
CSIR NET	2015 Dec	2 M

A bird leaves its nest and flies away. Its distance x from the nest is plotted as a function of time t. Which of the following plots cannot be right?

1.



2.



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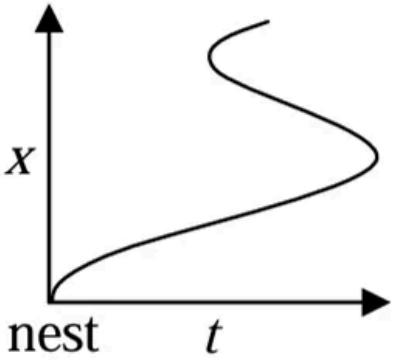
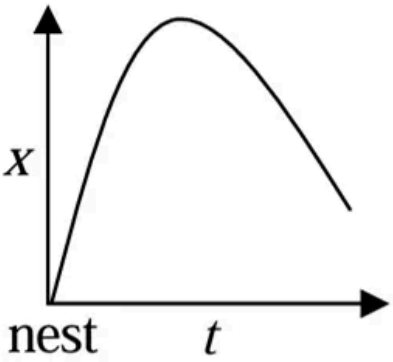


4.



Q9. [Dec 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 Dec	2 M

A cubical cardboard box made of $1cm$ thick card board has outer side of $29cm$. A tight-fitting cubical box of the same thickness is placed inside it, then another one inside it and so on. How many cubical boxes will be there in the entire set?

1. 29
2. 28
3. 15
4. 14

Q10. [Dec 2015] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2015 Dec	2 M

Secondary colours are made by a mixture of three primary colours, Red, Green and Blue, in different proportions; each of the primary colours comes in 8 possible levels. Grey corresponds to equal proportions of Red, Green and Blue. How many shades of grey exist ii this scheme?

1. 8^3
2. 8
3. 3^8
4. 8×3

Q11. [Dec 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 Dec	2 M

The triangle formed by the lines $y = x, y = 1 - x$ and $x = 0$ in a two dimensional plane is
(x and y axes have the same scale)

1. isosceles and right-angled
2. isosceles but not right-angled
3. right-angled but not isosceles
4. neither isosceles nor right angled

Q12. [Dec 2015] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2015 Dec	2 M

There are two buckets A and B. Initially A has 2 liters of water and B is empty. At every hour 1 liter of water is transferred from A to B followed by returning $\frac{1}{2}$ liter back to A from B half an hour later. The earliest A will get empty is in:

1. 5 h
2. 4 h
3. 3 h
4. 2 h

Q13. [Dec 2015] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2015 Dec	2 M

Statement A: The following statement is true

Statement B: The preceding statement is false

Choose the correct inference from the following:

1. Statements A and B are always true
2. Statements A and B can be true if there is at least one statement between A and B
3. Statements A and B can be true if there are at least two statements between A and B
4. Statements A and B can never be true, independently

Q14. [Dec 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 Dec	2 M

A car is moving at $60\ \mathrm{km/h}$. The instantaneous velocity of the upper most points of its wheels is

1. $60\ \mathrm{km/h}$ forward
2. $120 km/h$ forward
3. $60\ \mathrm{km/h}$ backward
4. $120\ \mathrm{km/h}$ backward

Q15. [Dec 2015] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2015 Dec	2 M

If $D + I + M = 1501$

$$C + I + V + I + L = 157$$
$$L + I + V + I + D = 557$$
$$C + I + V + I + C = 207$$

What is $V + I + M = ?$

1. Cannot be found
2. 1009
3. 1006
4. 509

Q16. [Dec 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 Dec	2 M

A living cell has a protoplasm which is water based and demarcated by a lipid bilayer membrane. If a cell is pierced up to $\frac{1}{5}$ th of its diameter with a very sharp needle, after taking the needle out

1. no effect will be observed.
2. protoplasm will leak out from the hole made by the needle for a few minutes until the cell heals the wound.
3. protoplasm will keep on leaking out till the cell is dead.
4. the cell will burst like a balloon.

Q17. [Dec 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 Dec	2 M

Density of a rice grain is $1.5 g/cc$ and bulk density of rice heap is $0.80 g/cc$. If a 1 litre container is completely filled with rice, what will be the approximate volume of pore space in the container?

1. $350 cc$
2. $465 cc$
3. $550 cc$
4. $665 cc$

Q18. [Dec 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 Dec	2 M

A turtle starts swimming from a point A located on the circumference of a circular pond. After swimming for 4 meters in a straight line it hits point B on the circumference or the pond. From there it changes direction and swims for 3 meters in a straight line and arrives at point D diametrically opposite to point A. How far is point D from A ?

1. $3m$
2. $4m$
3. $7m$
4. $5m$

Q19. [Dec 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 Dec	2 M

Four circles of unit radius each are drawn such that each one touches two others and their centres lie on the vertices of a square. The area of the region enclosed between the circles is

1. $\pi - 1$
2. $\pi - 2$
3. $3 - \pi$
4. $4 - \pi$

Q20. [Dec 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 Dec	2 M

A film projector and microscope give equal magnification. But a film projector is not used to see living cells because

1. a living cell cannot be placed in a film projector.
2. the viewer's eye is close to a microscope whereas it is far away from the projector's screen.
3. a microscope produces a virtual image whereas a projector produces a real image.
4. a microscope has greater resolving power than a projector.

Q21. [June 2015] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2015 June	2 M

Each of the following pairs of words hides a number, based on which you can arrange them in ascending order. Pick the correct answer:

I. Cloth reel

J. Silent wonder

K. Good tone

L. Bronze rod

1. L, K, J, I
2. I, J, K, L
3. K, L, J, I
4. K, J, I, L

Q22. [June 2015] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2015 June	2 M

Which of the following values is same as $2^{2^{2^2}}$?

1. 2^6
2. 2^8
3. 2^{16}
4. 2^{222}

Q23. [June 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 June	2 M

A $12\text{m} \times 4\text{m}$ rectangular roof is resting on four 4m tall thin poles. Sunlight falls on the roof at an angle of $45°$ from the east, creating a shadow on the ground. What will be the area of the shadow?

1. 24m^2
2. 36m^2
3. 48m^2
4. 60m^2

Q24. [June 2015] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2015 June	2 M

If

$$\begin{array}{r} 2a \\ \times \quad b2 \\ \hline c6 \\ 84 \\ \hline 8d6 \end{array}$$

Here a, b, c, d are digits.

Then $a + b =$

1. 4
2. 9
3. 11
4. 16

Q25. [June 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 June	2 M

The maximum number of points formed by intersection of all pairs of diagonals of convex octagon is

1. 70
2. 400
3. 120
4. 190

Q26. [June 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 June	2 M

Find the height of a box of base area $24\ \text{cm}\ \ 48\ \text{cm}$, in which the longest stick that can be kept is $56\ \text{cm}$ long.

1. $8\ \text{cm}$
2. $32\ \text{cm}$
3. $37.5\ \text{cm}$
4. $16\ \text{cm}$

Q27. [June 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 June	2 M

The product of the perimeter of a triangle, the radius of its in-circle, and a number gives the area of the triangle. The number is

1. $^1/_4$
2. $^1/_3$
3. $^1/_2$
4. 1

Q28. [June 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 June	2 M

An infinite row of boxes is arranged. Each box has half the volume of the previous box. If the largest box has a volume of 20 cc, what is the total volume of all boxes'?

1. Infinite
2. 400 cc
3. 40 cc
4. 80 cc

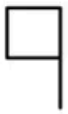
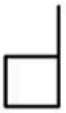
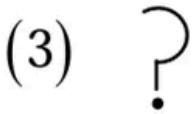
Q29. [June 2015] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2015 June	2 M

Find the missing element based on the given pattern

(1)  (2)  (3) 

(1)  (2)  (3) 

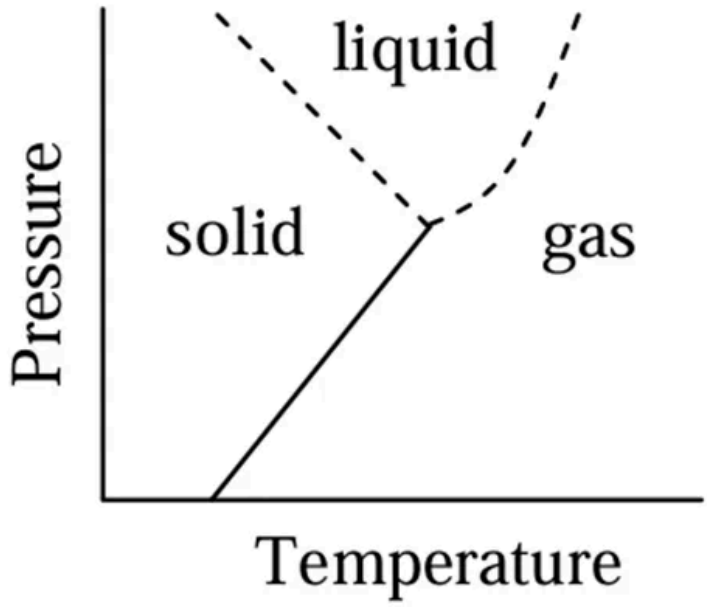
(a)  (b)  (c)  (d) 

Q30. [June 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 June	2 M

By reading the accompanying graph, determine the INCORRECT statement out of the following.



1. Melting point increases with pressure
2. Melting point decreases with pressure
3. Boiling point increases with pressure
4. Solid. liquid and gas can co-exist at the same pressure and temperature

Q31. [June 2015] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2015 June	2 M

If you change only one observation from a set of 10 observations, which of the following will definitely change?

1. Mean
2. Median
3. Mode
4. Standard Deviation

Q32. [June 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 June	2 M

A man starts his journey at 0100 Hrs local time to reach another country at 0900 Hrs local time on the same date. He starts a return journey on the same night at 2100 Hrs local time to his original place, taking the same time to travel back. If the time zone of his country of visit lags by 10 hours, the duration for which the man was away from his place is

1. 48 hours
2. 20 hours
3. 25 hours
4. 36 hours

Q33. [June 2015] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2015 June	2 M

Let r be a positive number satisfying

$$r^{(1/1234)} + r^{(-1/1234)} = 2$$

Then

$$r^{4321} + r^{-4321} = ?$$

1. 2
2. $2^{(4321/1234)}$
3. 2^{3087}
4. 2^{1234}

Q34. [June 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 June	2 M

A float is drifting in a river, 10 m downstream of a boat that can be rowed at a speed of $10\text{m}/$ minute in still water. If the boat is rowed downstream, the time taken to catch up with the float

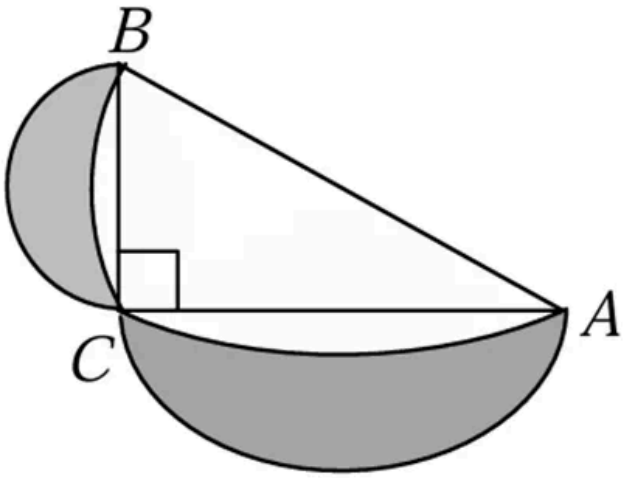
1. will be 1 minute
2. will be more than 1 min
3. will be less than 1 min
4. can be determined only if the speed of the river is known

Q35. [June 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 June	2 M

ABC is a right-angled triangle inscribed in a semicircle. Smaller semicircles are drawn on sides BC and AC . If the area of the triangle is a, what is the total area of the shaded lumes?



1. a
2. π a
3. a /π
4. a /2π

Q36. [June 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 June	2 M

An ant can lift another ant of its size whereas an elephant cannot lift another elephant of its size, because

1. ant muscle fibres are stronger than elephant muscle fibres.
2. ant has proportionately thicker legs than elephant
3. strength scales as the square of the size while weight scales as cube of the size
4. ants work cooperatively, whereas elephants work as individuals

Q37. [June 2015] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2015 June	2 M

Consider a series of letters placed in the following way:

U_G_C_C_S_I_R

Each letter moves one step to its right and the extreme right letter takes the first position, completing one operation. After which of the following numbers of operations do the Cs not sit side by side?

1. 3
2. 10
3. 19
4. 25

Q38. [June 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 June	2 M

An inclined plane rests against a horizontal cylinder of radius R. If the plane makes an angle of $30°$ with the ground, the point of contact of the plane with the cylinder is at a height of

1. $1.500\ R$
2. $1.866\ R$
3. $1.414\ R$
4. $1.000\ R$

Q39. [June 2015] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2015 June	2 M

What is the maximum number of parallel, non-overlapping cricket pitches(length 24 m , width 3m) that can be laid in a field of diameter 140 m , if the boundary is required to be at least 60 m from the centre of any pitch?

1. 6
2. 7
3. 12
4. 4

Q40. [June 2015] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2015 June	2 M

In a fast-moving car with open windows, the driver feels a continuous incoming breeze. The pressure inside the car, however, does not keep increasing because,

1. air coming in from the front window goes out from the rear.
2. air comes in as well as goes out through every window but the driver only feels the incoming one.
3. no air actually comes in and the feeling of breeze is an illusion.
4. cool air reduces the temperature therefore the pressure does not increase.

Q41. [Dec 2016] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2016 Dec	2M

The random errors associated with the measurement of P and Q are 10% and 2%, respectively. What is the percentage random error in P/Q ?

1. 12.0
2. 9.8
3. 8.0
4. 10.2

Q42. [Dec 2016] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2016 Dec	2M

In how many distinguishable ways can the letters of the word CHANCE be arranged?

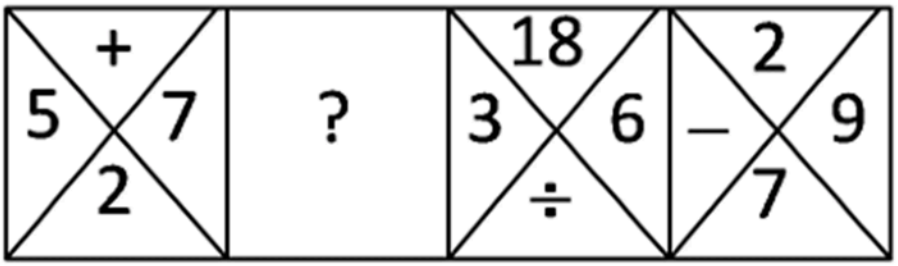
1. 120
2. 720
3. 360
4. 240

Q43. [Dec 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 Dec	2M

Find out the missing pattern.



1. 

2. 

3. 

4. 

Q44. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

Seeds when soaked in water gain about 20% by weight and 10% by volume. By what factor does the density increase?

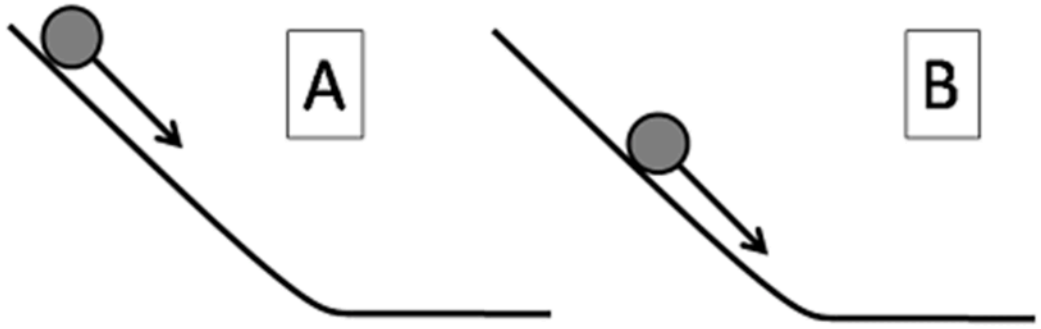
1. 1.20
2. 1.10
3. 1.11
4. 1.09

Q45. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

Retarding frictional force, f, on a moving ball, is proportional to its velocity, V. Two identical balls roll down identical slopes (A & B) from different heights. Compare the retarding forces and the velocities of the balls at the bases of the slopes.



1. $f_A > f_B; V_A > V_B$
2. $f_A > f_B; V_B > V_A$
3. $f_B > f_A; V_B > V_A$
4. $f_B > f_A; V_A > V_B$

Q46. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

Two cockroaches of the same species have the same thickness but different lengths and widths. Their ability to survive in oxygen deficient environments will be compromised if

1. their thickness increases, and the rest of the size remains the same.

2. their thickness remains unchanged, but their length increases.

3. their thickness remains unchanged, but their width decreases.

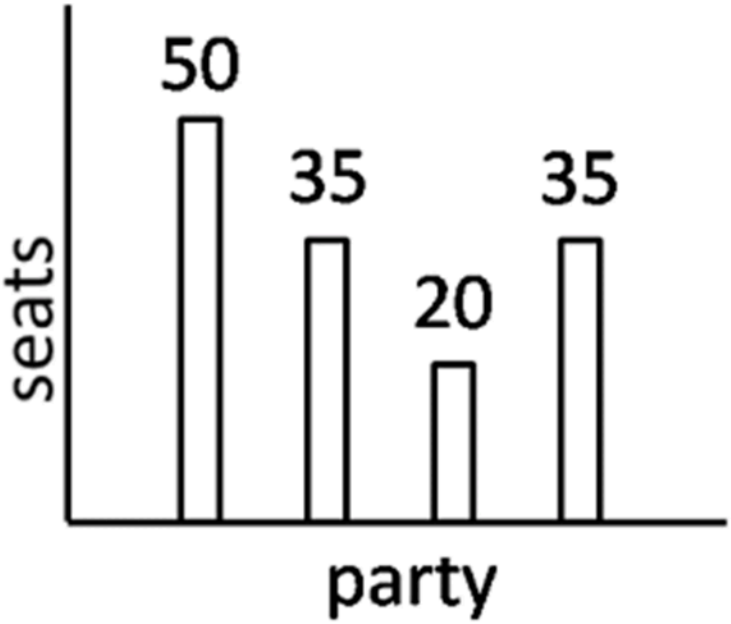
4. their thickness decreases, but the rest of the size remains unchanged.

Q47. [Dec 2016] . 2.0 marks

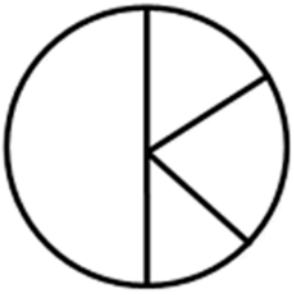
General Aptitude > Data Analysis

CSIR NET	2016 Dec	2M

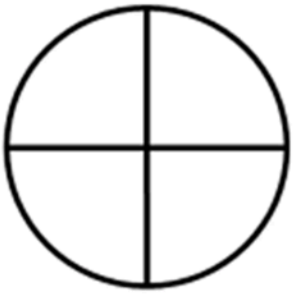
The bar chart shows number of seats won by four political parties in a state legislative assembly.



Which of the following pie-charts correctly depicts this information?

1. 

2. 

3. 

4. 

Q48. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

Intravenous (IV) fluid has to be administered to a child of 12 kg with dehydration, at a dose of 20 mg of fluid per kg of body weight, in 1 hour. What should be the drip rate (in drops/min) of IV fluid?

(1 mg = 20 drops)

1. 7

2. 80

3. 120

4. 4

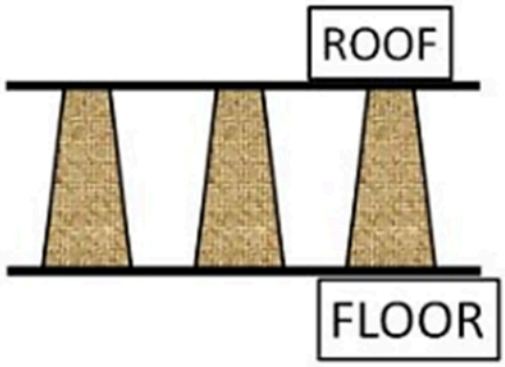
Q49. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

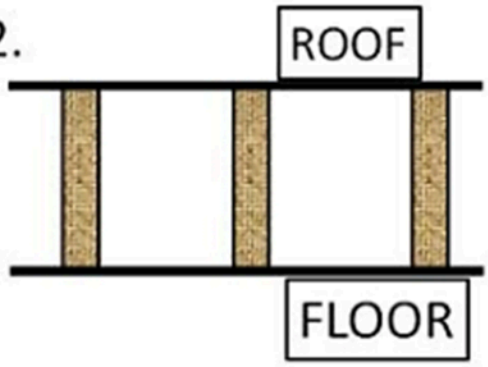
CSIR NET	2016 Dec	2M

A hall with a high roof is supported by an array of identical columns such that, to a person lying on the floor and looking at the ceiling, the columns appear parallel to each other. Which of the following designs conforms to this?

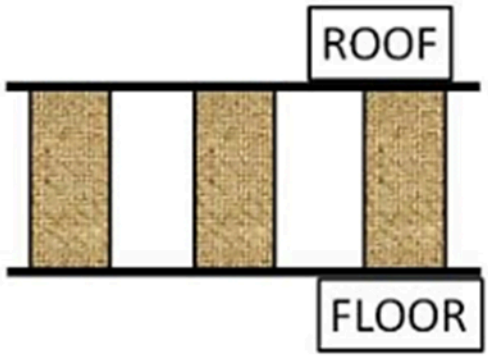
1.



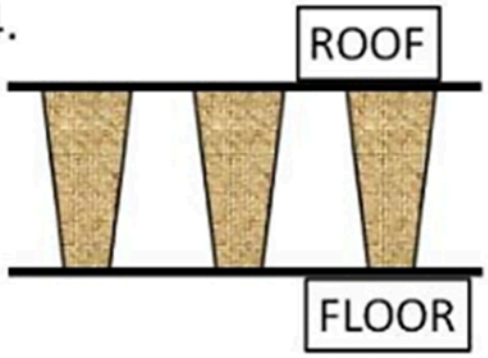
2.



3.



4.

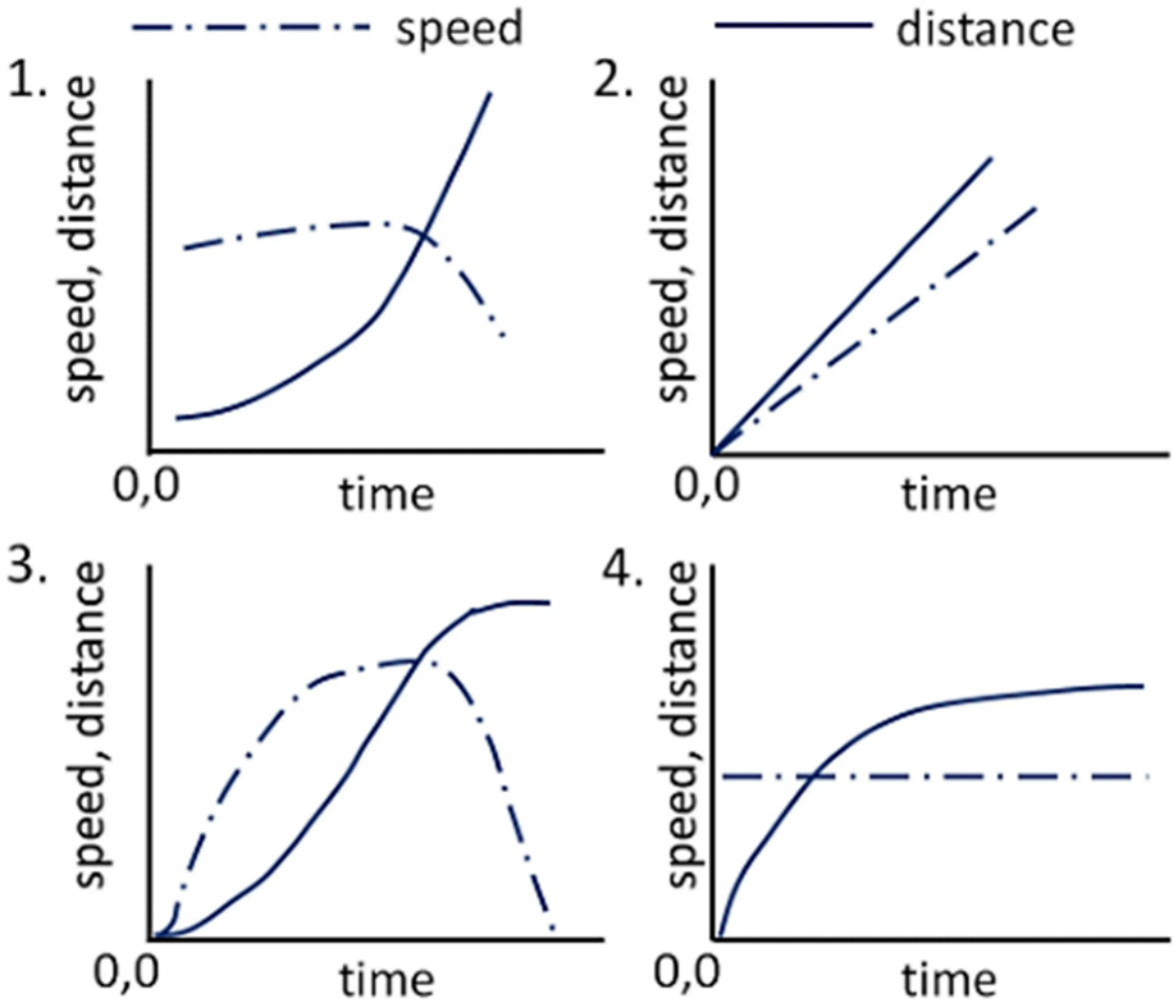


Q50. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

Which of the following graphs correctly shows the speed and the corresponding distance covered by an object moving along a straight line?



Q51. [Dec 2016] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2016 Dec	2M

A normal TV screen has a width to height ratio of 4:3, while a high definition TV screen has a ratio of 16:9. What is the approximate ratio of their diagonals, if the heights of the two types of screens are the same?

1. 5: 9
2. 5:18
3. 5: 15
4. 5: 6

Q52. [Dec 2016] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2016 Dec	2M

Comparing numerical values, which of the following is different from the rest?

1. The ratio of the circumference of a circle to its diameter.
2. The sum of the three angles of a plane triangle expressed in radians.
3. 22/7.
4. The net volume of a hemisphere of unit radius, and a cone of unit radius and unit height.

Q53. [Dec 2016] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2016 Dec	2M

A river is 4.1 km wide. A bridge built across it has 1/7 of its length on one bank and 1/8 of its length on the other bank. What is the total length of the bridge?

1. 5.1 km
2. 4.9 km
3. 5.6 km
4. 5.4 km

Q54. [Dec 2016] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2016 Dec	2M

OA, OB, and OC are radii of the quarter circle shown in the figure. AB is also equal to the radius.

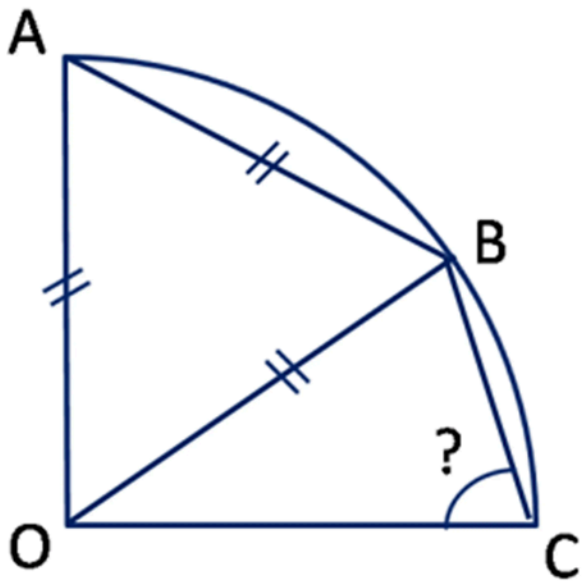
What is angle OCB?

1. 60°

2. 75°

3. 55°

4. 65°



Q55. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

Two iron spheres of radii 12 cm and 1 cm are melted and fused. Two new spheres are made without any loss of iron. Their possible radii could be

1. 9 and 4 cm

2. 9 and 10 cm

3. 8 and 5 cm

4. 2 and 11 cm

Q56. [Dec 2016] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2016 Dec	2M

A man buys alcohol at Rs. 75/cL, adds water, and sells it at Rs.75/cL making a profit of 50%. What is the ratio of alcohol to water?

1. 2:1
2. 1:2
3. 3:2
4. 2:3

Q57. [Dec 2016] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2016 Dec	2M

The sum of digits of a two-digit number is 9. If the fraction formed by taking 9 less than the number as numerator and 9 more than the number as denominator is 3/4, what is the number?

1. 36
2. 63
3. 45
4. 54

Q58. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

The distance between X and Y is 1000 km . A person flies from X at 8 AM local time and reaches Y at 10 AM local time. He flies back after a halt of 4 hours at Y and reaches X at 4 PM local time on the same day. What is his average speed for the duration he is in the air?

1. 500 km/hour
2. 250 km/hour
3. 750 km/hour
4. cannot be calculated with the given information

Q59. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

If a person travels $x\%$ faster than normal, he reaches y minutes earlier than normal. What is his normal time of travel?

1. $\left(\frac{100}{x}+1\right) y$ minutes
2. $\left(\frac{x}{100}+1\right) y$ minutes
3. $\left(\frac{y}{100}+1\right) x$ minutes
4. $\left(\frac{100}{y}+1\right) x$ minutes

Q60. [Dec 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 Dec	2M

A and B walk up an escalator one step at a time, while the escalator itself moves up at a constant speed. A walks twice as fast as B. A reaches the top in 40 steps and B in 30 steps. How many steps of the escalator can be seen when it is not moving?

1. 30
2. 40
3. 50
4. 60

Q61. [June 2016] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2016 June	2M

An infinite number of identical circular discs each of radius $\frac{1}{2}$ are tightly packed such that the centres of the discs are at integer values of coordinates x and y. The ratio of the area of the uncovered patches to the total area is

1. $1 - \pi/4$

2. $\pi/4$

3. $1 - \pi$

4. π

Q62. [June 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 June	2M

It takes 5 days for a steamboat to travel from A to B along a river. It takes 7 days to return from B to A . How many days will it take for a raft to drift from A to B (all speeds stay constant)?

1. 13
2. 35
3. 6
4. 12

Q63. [June 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 June	2M

"My friend Raju has more than 1000 books", said Ram. "Oh no, he has less than 1000 books", said Shyam. "Well, Raju certainly has at least one book", said Geeta. If only one of these statements is true, how many books does Raju have?

1. 1
2. 1000
3. 999
4. 1001

Q64. [June 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 June	2M

Of the following, which is the odd one out?

1. Cone
2. Torus
3. Sphere
4. Ellipsoid

Q65. [June 2016] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2016 June	2M

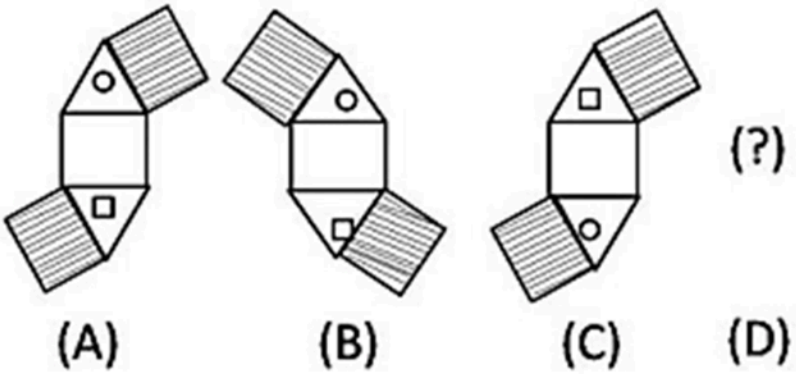
A student appearing for an exam is declared to have failed the exam if his/her score is less than half the median score. This implies

1. 1/4 of the students appearing for the exam always fail.
2. if a student scores less than $1/4$ of the maximum score, he/she always fails.
3. if a student scores more than $1/2$ of the maximum score, he/she always passes.
4. it is possible that no one fails.

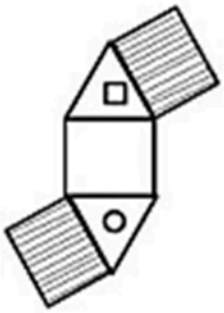
Q66. [June 2016] . 2.0 marks

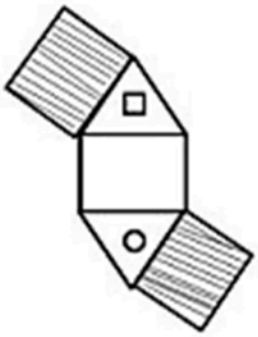
General Aptitude > Reasoning

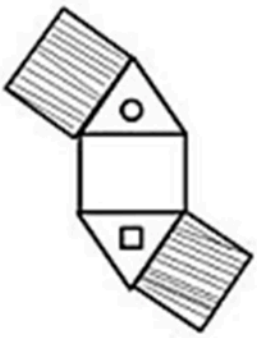
CSIR NET	2016 June	2M

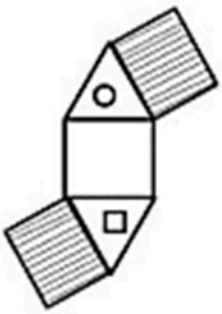


Find the next figure 'D"

1. 

2. 

3. 

4. 

Q67. [June 2016] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2016 June	2M

N is a four digit number. If the leftmost digit is removed, the resulting three digit number is $1/9^{\text{th}}$ of N. How many such N are possible?

1. 10
2. 9
3. 8
4. 7

Q68. [June 2016] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2016 June	2M

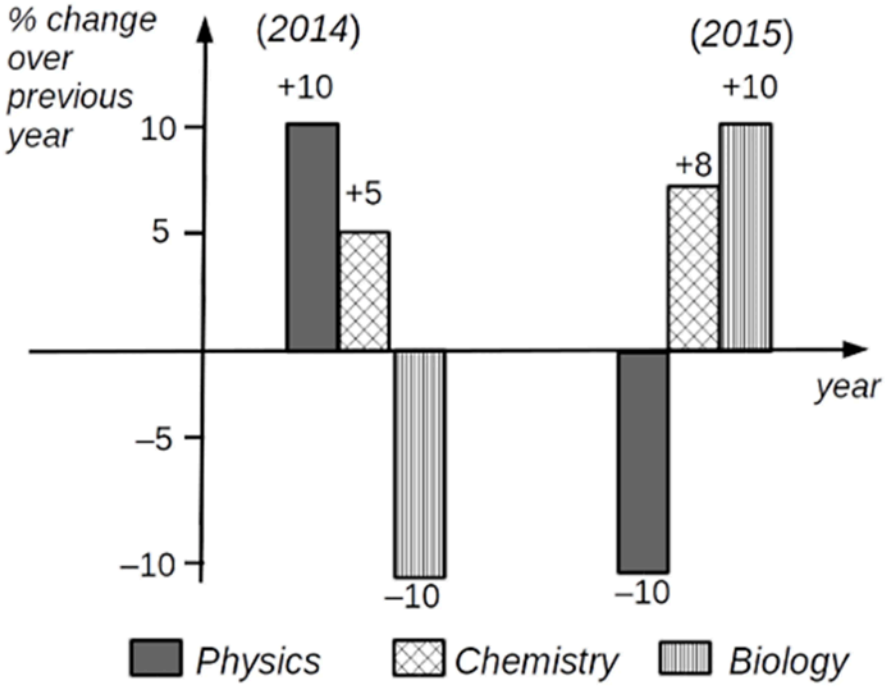
AB and CD are two chords of a circle subtending $60°$ and $120°$ respectively at the same point on the circumference of the circle. Then AB: CD is

1. $\sqrt{3}:1$
2. $\sqrt{2}:1$
3. $1:1$
4. $\sqrt{3}:\sqrt{2}$

Q69. [June 2016] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2016 June	2M



Which of the following inferences can be drawn from the above graph?

1. The total number of students qualifying in Physics in 2015 and 2014 is the same
2. The number of students qualifying in Biology in 2015 is less than that in 2013
3. The number of Chemistry students qualifying in 2015 must be more than the number of students who qualified in Biology in 2014
4. The number of students qualifying in Physics in 2015 is equal to the number of students in Biology that qualified in 2014

Q70. [June 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 June	2M

What is the minimum number of moves required to transform figure 1 to figure 2? A move is defined as removing a coin and placing it such that it touches two other coins in its new position.

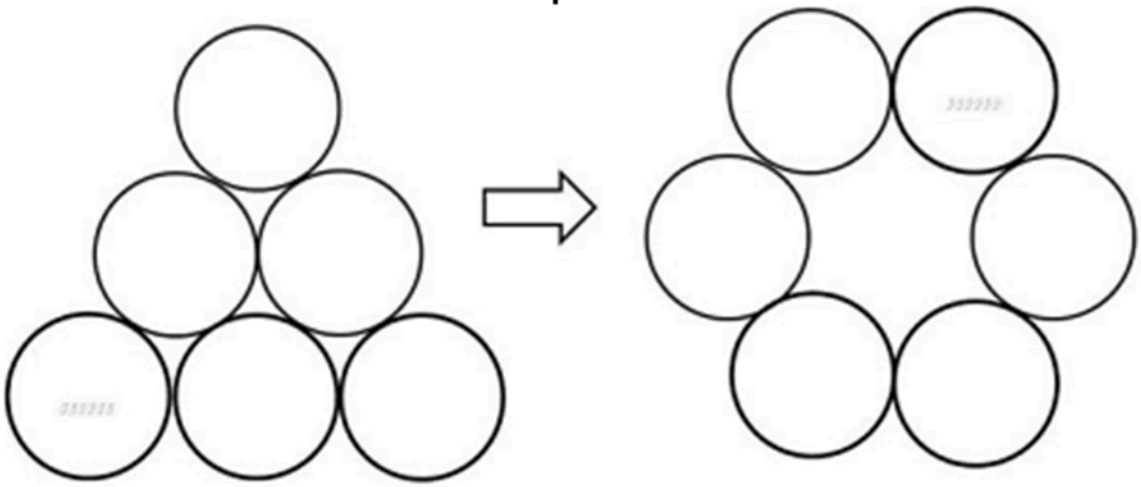


Fig - 1 Fig - 2

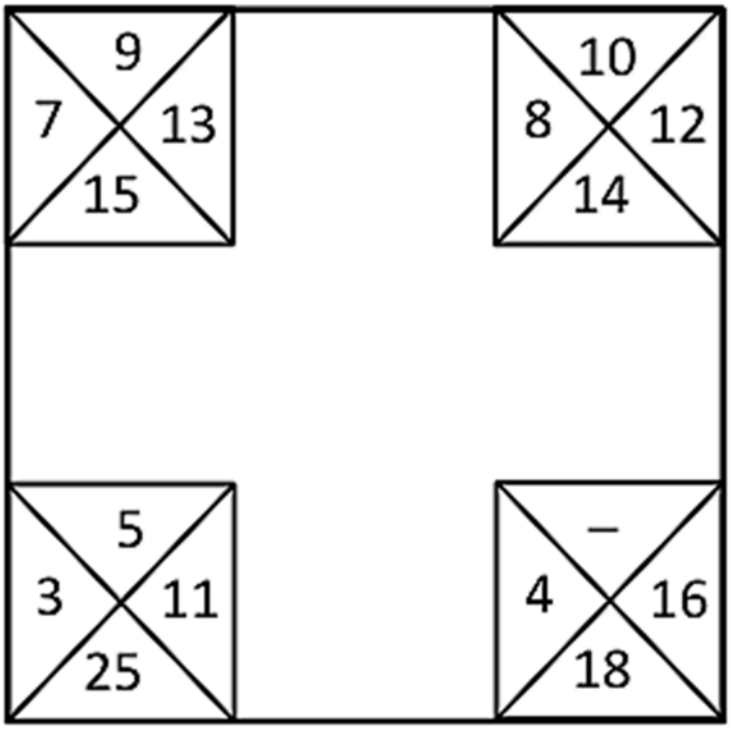
1. 1
2. 2
3. 3
4. 4

Q71. [June 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 June	2M

The relationship among the numbers in each corner square is the same as that in the other corner squares. Find the missing number.



1. 10
2. 8
3. 6
4. 12

Q72. [June 2016] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2016 June	2M

Which of the following best approximates $\sin(0.5°)$?

1. 0.5
2. $0.5 \times \frac{\pi}{90}$
3. $0.5 \times \frac{\pi}{180}$
4. $0.5 \times \frac{\pi}{360}$

Q73. [June 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 June	2M

What comes next in the sequence?

1. 
2. 
3. 
4. 

Q74. [June 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 June	2M

Which of the following statements is logically incorrect?

1. I always speak the truth
2. I occasionally lie
3. I occasionally speak the truth
4. I always lie

Q75. [June 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 June	2M

How many times starting at 1:00 pm would the minute and hour hands of a clock make an angle of 40° with each other in the next 6 hours?

1. 6
2. 7
3. 11
4. 12

Q76. [June 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 June	2M

Brothers Santa and Chris walk to school from their house. The former takes 40 minutes while the latter, 30 minutes. One day Santa started 5 minutes earlier than Chris. In how many minutes would Chris overtake Santa?

1. 5
2. 15
3. 20
4. 25

Q77. [June 2016] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2016 June	2M

The set of numbers $(5,6,7,m,6,7,8,n)$ has an arithmetic mean of 6 and mode (most frequently occurring number) of 7 . Then $m \times n =$

1. 18
2. 35
3. 28
4. 14

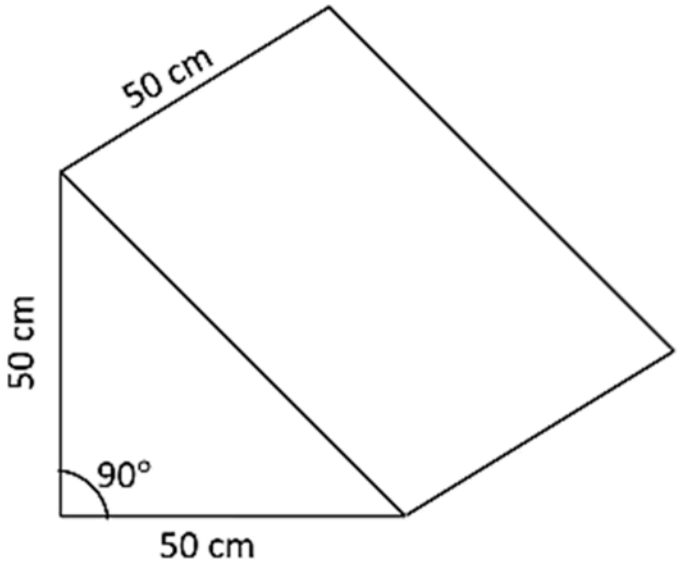
Q78. [June 2016] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2016 June	2M

The diagram shows a block of marble having the shape of a triangular prism. What is the maximum number of slabs of $10 \times 10 \times 5\ \text{cm}^3$ size that can be cut parallel to the face on which the block is resting?

1. 50
2. 100
3. 125
4. 250



Q79. [June 2016] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2016 June	2M

A solid contains a spherical cavity. The cavity is filled with a liquid and includes a spherical bubble of gas. The radii of cavity and gas bubble are 2 mm and 1 mm , respectively. What proportion of the cavity is filled with liquid?

1. $\frac{1}{8}$
2. $\frac{3}{8}$
3. $\frac{5}{8}$
4. $\frac{7}{8}$

Q80. [June 2016] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2016 June	2M

Fill in the blank: F2, _____ , D8, C16, B32, A64.

1. C4
2. E4
3. C2
4. G16

Q81. [Dec 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 Dec	2M

In a group of students, 30% play only cricket, 20% play only football and 10% play only basketball. 20% of the students play both football and cricket, 15% play both basketball and cricket, 10% play both football and basketball. 15 students play no games, while 5% of the students play all three games. What is the total number of students?

1. 300
2. 250
3. 350
4. 400

Q82. [Dec 2017] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2017 Dec	2M

Five persons A, B, C, D and E are sifting in a row with C in the middle of the group. If D is at an extreme end and there are at least two persons between B and E, then which of the following statements is incorrect?

1. E can be on extreme left
2. E can be on extreme right
3. A cannot be on extreme left
4. A is always a neighbour of B or D

Q83. [Dec 2017] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2017 Dec	2M

A sphere G of radius b is fixed mid-air and several spheres identical to the first one are shot at it with their velocities parallel to each other. If the shot spheres fall within an imaginary cylinder of radius $a(b \ll a)$, then the fraction of spheres that will hit G is

1. $2b/a$
2. $4b^2/a^2$
3. $(a-b)/(a+b)$
4. $8b^3/a^3$

Q84. [Dec 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 Dec	2M

The distance from Nehrunagar to Gandhinagar is $27km.A$ and B start walking from Nehrunagar towards Gandhinagar at speeds of $5\,\mathrm{km/hr}$ and $7\,\mathrm{km/hr}$, respectively. B reaches Gandhinagar, returns immediately, and meets A at Indiranagar. What is the distance between Nehrunagar and Indiranagar? (Assume all three cities to be in one straight line)

1. 12.5 km
2. 22.5 km
3. 4.5 km
4. 13.5 km

Q85. [Dec 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 Dec	2M

A leaf appears green in daylight. If this leaf were observed in red light, what colour would it appear to have?

1. Green
2. Black-Brown
3. Red
4. Blue

Q86. [Dec 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 Dec	2M

Approximately how much blood flows per day through a normal human heart beating 70 times per minute, having a relaxed volume of 110 cc and compressed volume of 70 cc ?

1. 7150 litres
2. 4000 litres
3. 28000 litres
4. 11100 litres

Q87. [Dec 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 Dec	2M

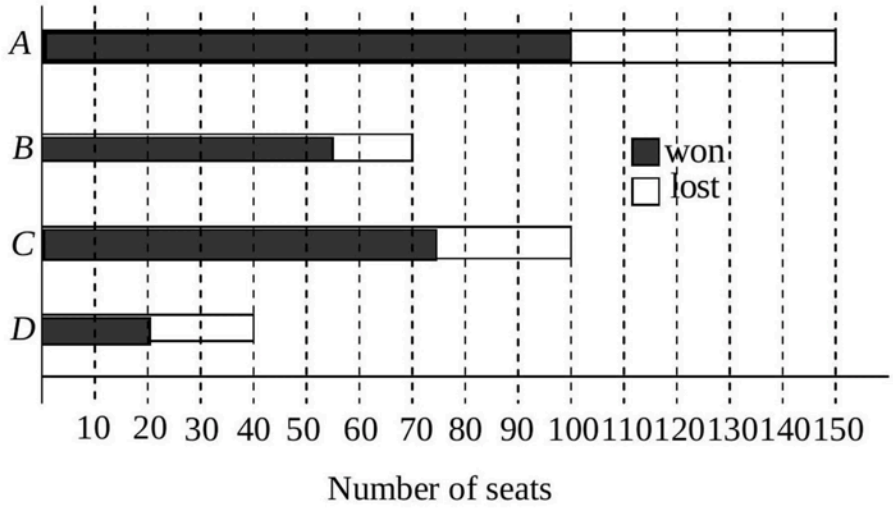
The molar fraction of hydrochloric acid in an extremely dilute' aqueous solution is doubled. The pH of the resulting solution is

1. approximately doubled
2. approximately halved
3. Increased
4. reduced

Q88. [Dec 2017] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2017 Dec	2M



The bar chart above shows number of seats won by four political parties A, B, C and D. Which party won the largest proportion of seats it contested?

1. A

2. B

3. C

4. D

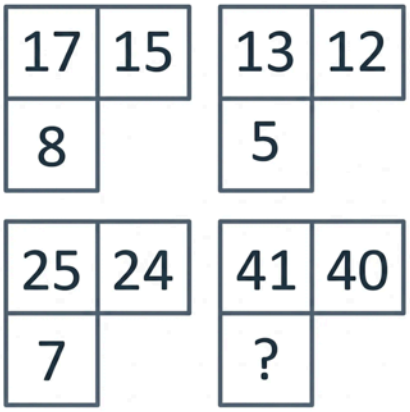
Q89. [Dec 2017] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2017 Dec	2M

Find the missing number

1. 4
2. 9
3. 3
4. 6



Q90. [Dec 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 Dec	2M

When Ramesh was at the age of 8 years, he hammered a nail into a large tree to mark his height. If the tree grows 2 cm/year, how much higher would the nail be after 5 years?

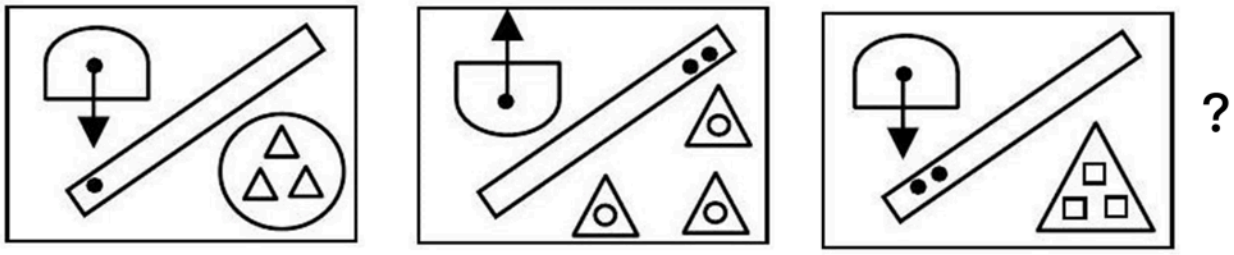
1. 5 cm higher
2. 0 cm higher
3. 10 cm higher
4. 8 cm higher

Q91. [Dec 2017] . 2.0 marks

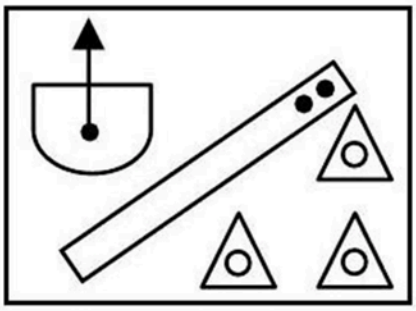
General Aptitude > Reasoning

CSIR NET	2017 Dec	2M

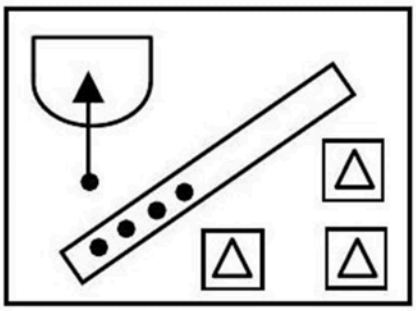
Find the next pattern in the following sequence:



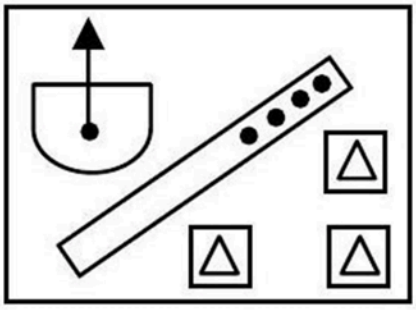
1.



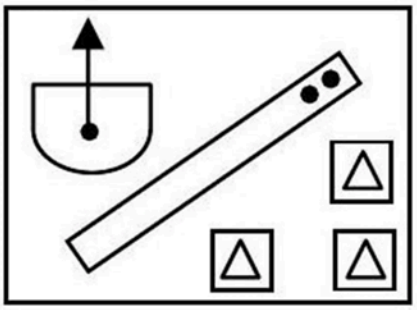
2.



3.



4.



Q92. [Dec 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 Dec	2M

For which of the following numbers is its positive square root closest to the number itself?

1. 0.33
2. 0.99
3. 0.89
4. 0.10

Q93. [Dec 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 Dec	2M

There are two gas parcels of equal volume, A and B at the same temperature and pressure. Parcel A is one mole of water vapour, while parcel B is one mole of dry air. Which of the following is TRUE?

1. Parcel A is heavier than Parcel B
2. Parcel B is heavier than Parcel A
3. Both parcels are equally heavy
4. Without temperature and pressure data, their relative masses cannot be determined

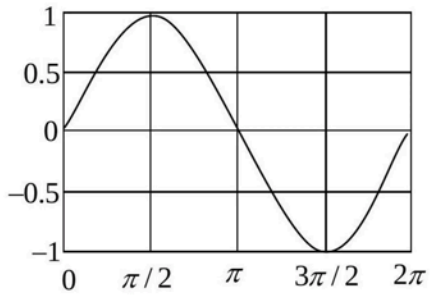
Q94. [Dec 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

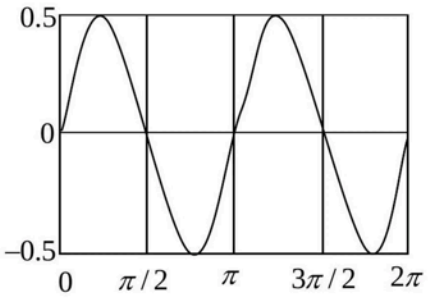
CSIR NET	2017 Dec	2M

Which one of the following graphs represents f(x)=sinx cosx ?

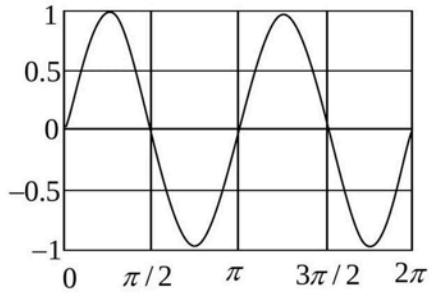
1.



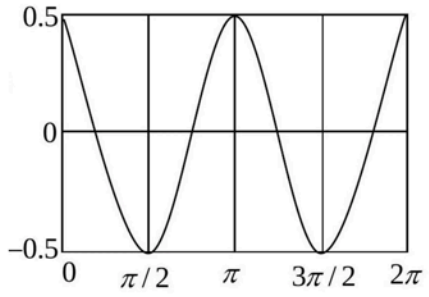
2.



3.



4.



Q95. [Dec 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 Dec	2M

The number of three English letter words, having at least one consonant, but not having two consecutive consonants, is

1. 2205
2. 3780
3. 2730
4. 3360

Q96. [Dec 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 Dec	2M

A buys n copies of a book at 20% discount. B gets the same book at 30% discount. What is the minimum value of it for which B can buy one extra copy of the book, spending the same amount as A ?

1. 7
2. 8
3. 6
4. This problem cannot be solved unless the marked price of the book is known.

Q97. [Dec 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 Dec	2M

A bird flies along the three sides of a field in the shape of an equilateral triangle at speeds of 2,4,8 km/hr, respectively. The average speed of the bird is

1. $\frac{24}{7}\ km/hr$
2. $\frac{14}{3}\ km/hr$
3. $\frac{22}{7}\ km/hr$
4. 4 km/hr

Q98. [Dec 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 Dec	2M

The average staff salary of a company is Rs. 8000/-. A new guard and a new manager are recruited with salaries of Rs. 5000/- and 20000/-, respectively. What is the current staff strength if the new average salary is Rs. 4000/- more than that of the guard?

1. 7
2. 9
3. 10
4. 11

Q99. [Dec 2017] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2017 Dec	2M

A $100m$ long fence is to be made by fixing a wire mesh on steel poles. Each pole has a $1m$ vertical portion and a $1m$ portion tilted at 45^0 to the vertical. What will be the area of wire mesh required?

1. $200\ \mathrm{m}^2$
2. $241.4\ \mathrm{m}^2$
3. $400\ \mathrm{m}^2$
4. $170.7\ \mathrm{m}^2$

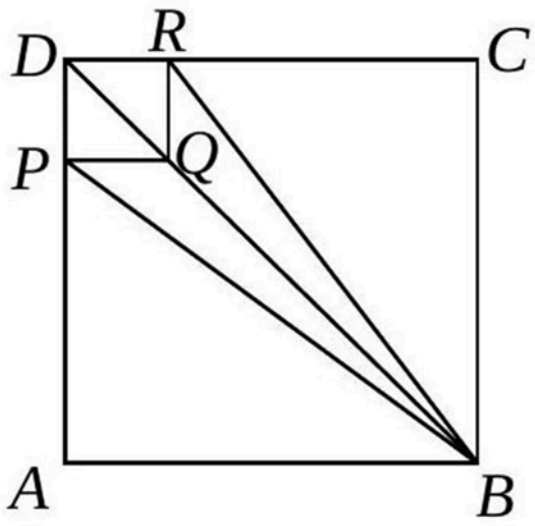
Q100. [Dec 2017] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2017 Dec	2M

DRQP is a small square of side a in the corner of a big square ABCD of side A . What is the ratio of the area of the quadrilateral $PBRQ$ to that of the square $ABCD$, given $A/a = 3$?

1. $2/9$
2. $1/6$
3. $1/3$
4. $2/7$



Q101. [June 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 June	2M

An ant starts at the origin and moves along the y-axis and covers a distance l. This is its first stage in its journey. Every subsequent stage requires the ant to turn right and move a distance which is half of its previous stage. What would be its coordinates at the end of its 5^{th} stage?

1. $\left(\frac{3l}{8}, \frac{13l}{16}\right)$
2. $\left(\frac{13l}{16}, \frac{3l}{8}\right)$
3. $\left(\frac{13l}{8}, \frac{3l}{16}\right)$
4. $\left(\frac{3l}{16}, \frac{13l}{8}\right)$

Q102. [June 2017] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2017 June	2M

In a group of siblings there are seven sisters and each sister has one brother. How many siblings are there in total?

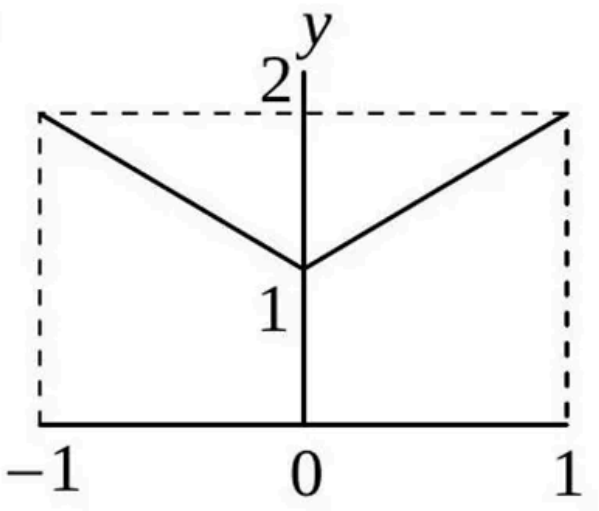
1. 15
2. 14
3. 8
4. 7

Q103. [June 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 June	2M

What is the average value of y for the range of x shown in the following plot?



1. 0
2. 1
3. 1.5
4. 2

Q104. [June 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 June	2M

A bread contains 40% (by volume) edible matter and the remaining space is filled with air. If the density of edible matter is 2 g/cc, what will be the bulk density of the bread (in g/cc) ?

1. 0.4
2. 0.8
3. 1.2
4. 1.6

Q105. [June 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 June	2M

A board has 8 rows and 8 columns. A move is defined as two steps along a column followed by one step along a row or vice-versa. What is the minimum number of moves needed to go from one corner to the diagonally opposite corner?

1. 5
2. 6
3. 7
4. 9

Q106. [June 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 June	2M

A job interview is taking place with 21 male and 17 female candidates. Candidates are called randomly. What is the minimum number of candidates to be called lo ensure that at least two males or two females have been interviewed?

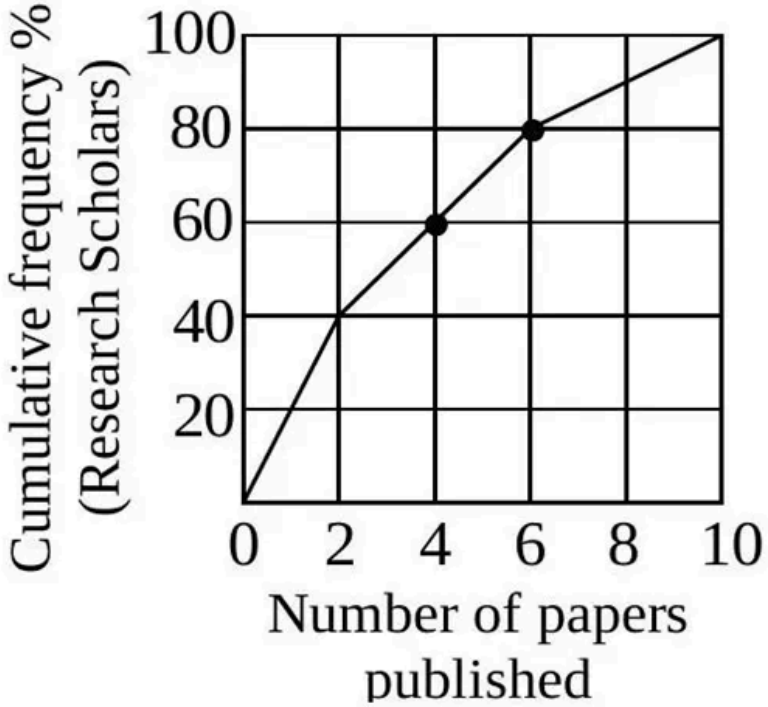
1. 17
2. 2
3. 3
4. 21

Q107. [June 2017] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2017 June	2M

The graph shows cumulative frequency % of research scholars and the number of papers published by them. Which of the following statements is true?



1. Majority of the scholars published more than 4 papers.
2. 60% of the scholars published at least 2 papers.
3. 80% of the scholars published at least 6 papers.
4. 30% of scholar's have not published any paper.

Q108. [June 2017] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2017 June	2M

A tells only lies on Monday, Tuesday and Wednesday and speaks only the truth for the rest of the week. B tells only lies on Thursday; Friday and Saturday and speaks only the truth for the rest of the week. If today both of them state that they have lied yesterday, what day is it today?

1. Monday
2. Thursday
3. Sunday
4. Tuesday

Q109. [June 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 June	2M

A fair die was thrown three times and the outcome was repeatedly six. If the die is thrown again, what is the probability of getting six?

1. $1/6$
2. $1/216$
3. $1/1296$
4. 1

Q110. [June 2017] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2017 June	2M

Which is the odd one out based on a divisibility test?

$$154,286,363,474,572,682$$

1. 474
2. 572
3. 682
4. 154

Q111. [June 2017] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2017 June	2M

My birthday is in January. What would be a sufficient number of questions with 'Yes/No' answers that will enable one to find my birth date?

1. 6
2. 3
3. 5
4. 2

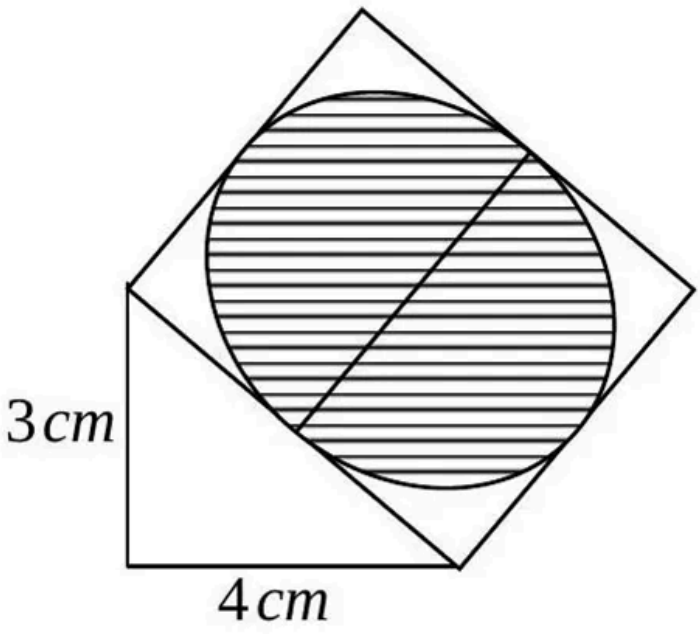
Q112. [June 2017] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2017 June	2M

A square is drawn with one of its sides as the hypotenuse of a right-angled triangle as shown in the figure. What is the area of the shaded circle?

1. $\frac{25\pi}{1}\,\text{cm}^2$
2. $\frac{25\pi}{2}\,\text{cm}^2$
3. $\frac{25\pi}{3}\,\text{cm}^2$
4. $\frac{25\pi}{4}\,\text{cm}^2$



Q113. [June 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 June	2M

What should be added to the product of the two numbers 983713 and 983719 to make it a perfect square?

1. 9
2. 13
3. 19
4. 27

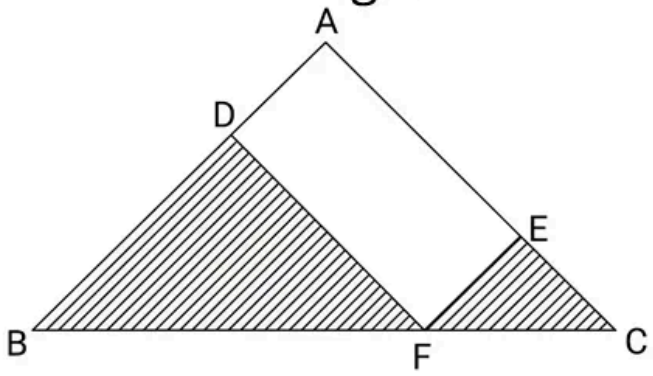
Q114. [June 2017] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2017 June	2M

In $\triangle ABC, AB = AC$ and $\angle BAC = 90°; EF \| AB$ and $DF \| AC$. The total area of the shaded region is

1. $AF^2/2$
2. AF^2
3. $BC^2/2$
4. BC^2



Q115. [June 2017] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2017 June	2M

Consider a circle of radius r. Fit the largest possible square inside it and the largest possible circle inside the square. What is the radius of the innermost circle?

1. $r/\sqrt{2}$
2. $\pi r/\sqrt{2}$
3. $\frac{r}{2\pi\sqrt{2}}$
4. $r/2$

Q116. [June 2017] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2017 June	2M

In how many ways can you place N coins on a board with N rows and N columns such that every row and every column contains exactly one coin?

1. N
2. $N(N-1)(N-2)\ldots.2\times 1$
3. N^2
4. N^N

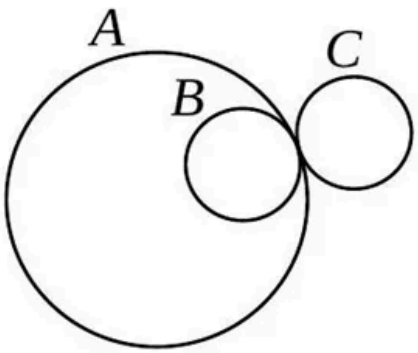
Q117. [June 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 June	2M

Two identical wheels B and C move on the periphery of circle A. Both start at the same point on A and return to it, B moving inside A and C outside it. Which is the correct statement?

1. B wears out π times C
2. C wears out π times B
3. B and C wear out about equally
4. C wears out two times B



Q118. [June 2017] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2017 June	2M

Which of the following is the odd one out?

1. Isosceles triangle
2. Square
3. Regular hexagon
4. Rectangle

Q119. [June 2017] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2017 June	2M

Find the missing word: $A, AB, \ldots \ldots, ABBABAAB$

1. $AABB$
2. $ABAB$
3. $ABBA$
4. $BAAB$

Q120. [June 2017] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2017 June	2M

A 100 m long train crosses a bridge 200 m long and 20 m wide bridge in 20 seconds. What is the speed of the train in $\mathrm{km/hr}$?

1. 45
2. 36
3. 54
4. 57.6

Q121. [Dec 2018] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2018 Dec	2M

A rectangular photo frame of size $30cm \times 40cm$ has a photograph mounted at the center leaving a $5cm$ border all around. The area of the border is

1. $600\ \text{cm}^2$
2. $350\ \text{cm}^2$
3. $400\ \text{cm}^2$
4. $700\ \text{cm}^2$

Q122. [Dec 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 Dec	2M

At a birthday party, every child gets 2 chocolates, every mother gets 1 chocolate, while no father gets a chocolate. In total 69 persons get 70 chocolates. If the number of children is half of the number of mothers and fathers put together, then how many fathers are there?

1. 22
2. 23
3. 24
4. 69

Q123. [Dec 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 Dec	2M

What is the value of

$1^2 - 2^2 + 3^2 - 4^2 + 5^2 - \cdots . + 17^2 - 18^2 + 19^2$?

1. -5
2. 12
3. 95
4. 190

Q124. [Dec 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 Dec	2M

The curves of $y = 2x^2$ and $y = 4x$ intersect each other at

1. only one point
2. exactly two points
3. more than two points
4. no point at all

Q125. [Dec 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 Dec	2M

The diameters of the pinholes of two otherwise identical cameras A and B are $500\mu m$ and $200\mu m$, respectively. Then the image in camera A will be

1. sharper than in B
2. darker than in B
3. less sharp and brighter than in B
4. sharper and brighter than in B

Q126. [Dec 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 Dec	2M

If $D = ABC + BCA + CAB$, where A, B and C are decimal digits, then D is divisible by

1. 37 and 29
2. 37 but not 29
3. 29 but not 37
4. neither 29 nor 37

Q127. [Dec 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 Dec	2M

For the following set of observed values

$\{60,65,65,70,70,70,70,82,85,90,95,95,100,160,160\}$

which of the statements is true?

1. mode < median < mean
2. mode < mean < median
3. mean < median < mode
4. median < mode < mean

Q128. [Dec 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 Dec	2M

A circular running track has six lanes, each $1m$ wide. How far ahead (in meters) should the runner in the outermost lane start from, so as to cover the same distance in one lap as the runner in the innermost lane?

1. 6π
2. 10π
3. 12π
4. 36π

Q129. [Dec 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 Dec	2M

In an examination 100 questions of 1 mark each are given. After the examination, 20 questions are deleted from evaluation, leaving 80 questions with a total of 100 marks. Student A had answered 4 of the deleted questions correctly and got 40 marks, whereas student B had answered 10 of the deleted questions correctly and got 35 marks. In this situation

1. A and B were equally benefited
2. A and B lost equally
3. B lost more than A
4. A lost more than B

Q130. [Dec 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 Dec	2M

A tourist drives 20 km towards east, turns right and drives 6 km , then drives 6 km towards west. He then turns to his left and drives $4km$ and finally turns right and drives $14km$. Where is he from his starting point?

1. 6 km towards east
2. 20 km towards west
3. 14 km towards north
4. 10 km towards south

Q131. [Dec 2018] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2018 Dec	2M

If 'SELDOON' means 'NOODLES' then what does 'SPUOS' mean?

1. SALAD
2. SOUPS
3. RASAM
4. ONION

Q132. [Dec 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 Dec	2M

An ideal pendulum oscillates with angular amplitude of 30^0 from the vertical. If it is observed at a random instant of time, its angular deviation from the vertical is most likely to be

1. 0^0
2. $\pm 10^0$
3. $\pm 20^0$
4. $\pm 30^0$

Q133. [Dec 2018] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2018 Dec	2M

In the context of tiling a plane surface, which of the following polygons is the odd one out?

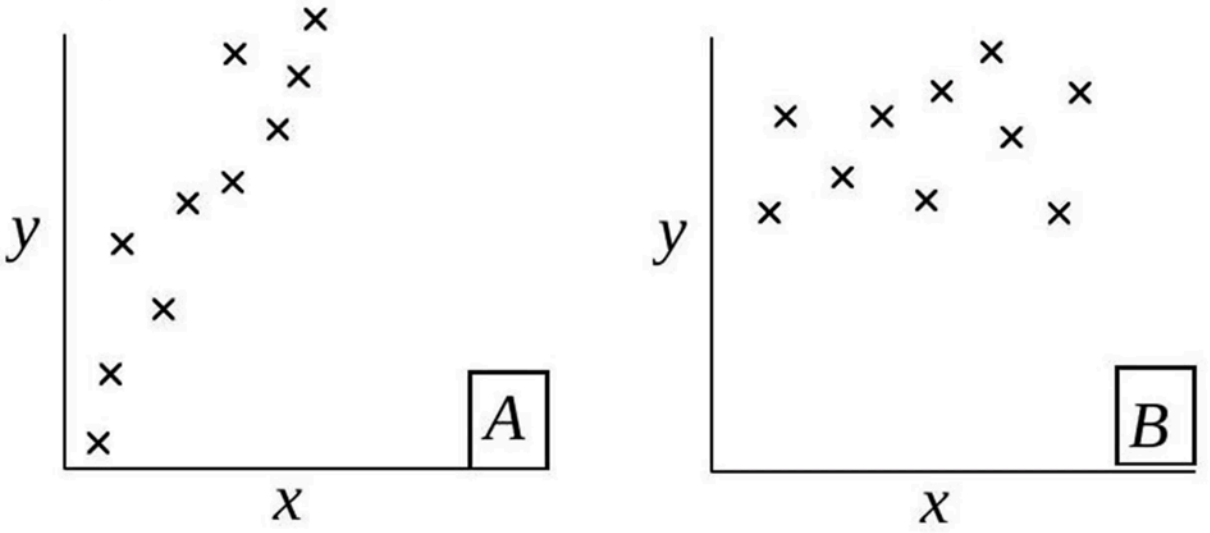
1. Equilateral triangle
2. Square
3. Regular pentagon
4. Regular hexagon

Q134. [Dec 2018] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2018 Dec	2M

Scatter plots for pairs of observations on the variables x and y in samples A and B are shown in the figure.



Which of the following is suggested by the plots?

1. Correlation between x and y is stronger in A than in B
2. Correlation between x and y is absent in B
3. Correlation between x and y is weaker in A than in B
4. y and x have a cause - effect relationship in A but not in B

Q135. [Dec 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 Dec	2M

Two solutions X and Y containing ingredients A, B and C in proportions $a: b: c$ and $c: b: a$, respectively, are mixed. For the resultant mixture to have A, B and C in equal proportion, it is necessary that

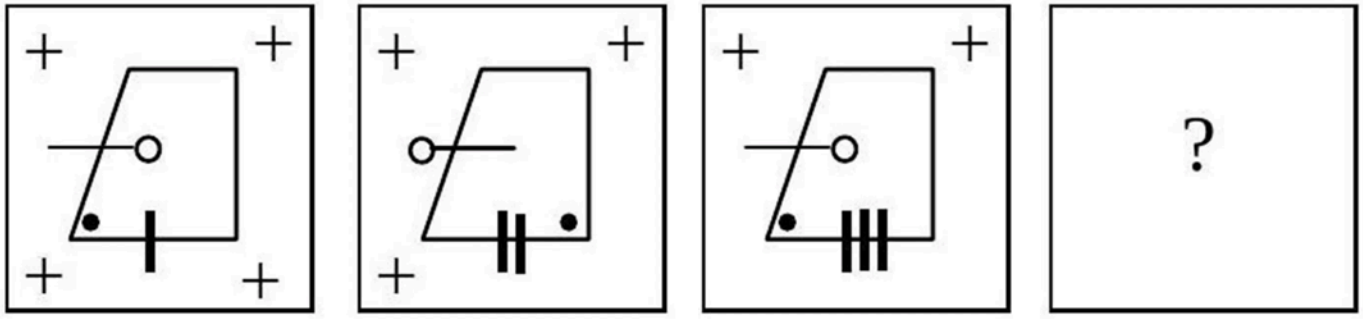
1. $b = \frac{c-a}{2}$
2. $c = \frac{a+b}{2}$
3. $c = \frac{a-b}{2}$
4. $b = \frac{c+a}{2}$

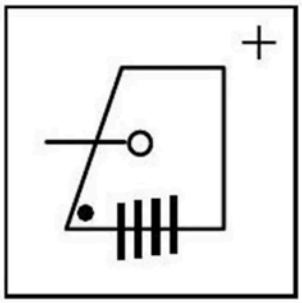
Q136. [Dec 2018] . 2.0 marks

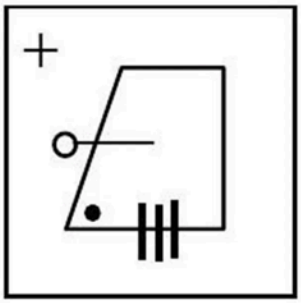
General Aptitude > Reasoning

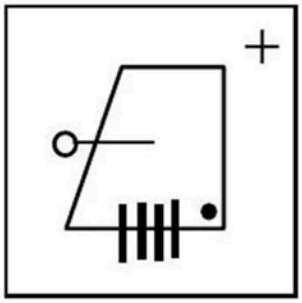
CSIR NET	2018 Dec	2M

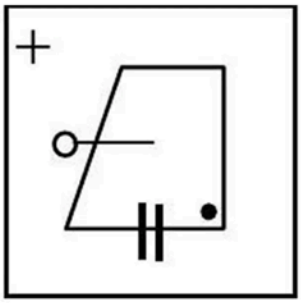
Find the missing figure in the following sequence.



1. 

2. 

3. 

4. 

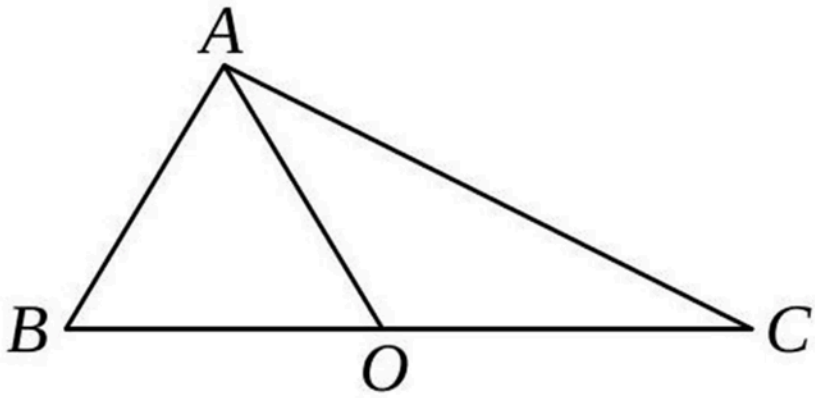
Q137. [Dec 2018] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2018 Dec	2M

In triangle ABC, $AB=11$, $BC=61$, $AC=60$, and O is the mid-point of BC. Then AO is

1. 18.5
2. 24.0
3. 30.5
4. 36.0



(Not to scale)

Q138. [Dec 2018] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2018 Dec	2M

Areas of three parts of a rectangle are given in unit of cm^2. What is the total area of the rectangle?

1. 18
2. 24
3. 36
4. 108

3	9
6	

Q139. [Dec 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 Dec	2M

A student is free to choose only Chemistry, only Biology or both. If out of 32 students, Chemistry has been chosen by 16 and Biology by 25, then how many students have chosen Biology but not Chemistry?

1. 9
2. 16
3. 25
4. 7

Q140. [Dec 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 Dec	2M

The lift (upward force due to air) generated by the wings and engines of an aircraft is

1. positive (upwards) while landing and negative (downwards) while taking off.
2. negative (downwards) while landing and positive (upwards) while taking off.
3. negative (downwards) while landing as well as while taking off.
4. positive (upwards) while landing as well as while taking off.

Q141. [June 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 June	2M

In a $100m$ race A beats B by $10m$. B beats C by $5m$. By how many meters does A beat C ?

1. 15.0 m
2. 5.5 m
3. 10.5 m
4. 14.5 m

Q142. [June 2018] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2018 June	2M

Suppose

(i) " $A*B$ " means " A is the father of B ",

(ii) " $A\Delta B$ " means " A is the husband of B ",

(iii) " $A\nabla B$ " means " A is the wife of B ",

(iv) " $A\square B$ " means " A is the sister of B ".

Which of the following represents "C is the father-in-law of the sister of D"

1. $C\nabla E * F \square D$
2. $C * E\nabla F \square D$
3. $C\Delta E^{*} F \square D$
4. $C * E\Delta F \square D$

Q143. [June 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 June	2M

In a group of 11 persons, each shakes hand with every other once and only once. What is the total number of such handshakes?

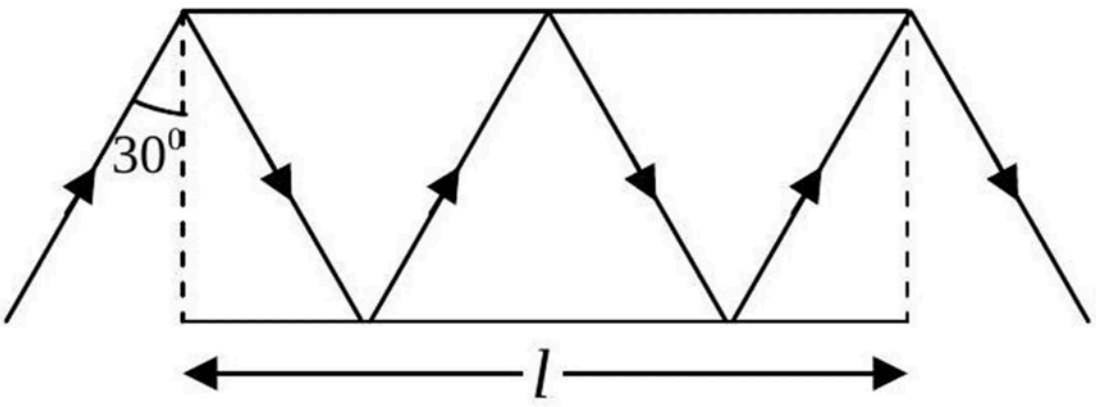
1. 110
2. 121
3. 55
4. 66

Q144. [June 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 June	2M

Path of a ray of light between two mirrors is shown in the diagram. If the length of each mirror is ' l ', what is the total path length of the ray between the mirrors?



1. $\frac{3}{4}l$
2. $\frac{4}{3}l$
3. $\frac{3}{2}l$
4. $2l$

Q145. [June 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 June	2M

What is the value of

$$(1 + 3 + 5 + 7 + \cdots + 4033) + 7983 \times 2017?$$

1. 20170000
2. 20172017
3. 20171720
4. 20172020

Q146. [June 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 June	2M

What is the last digit of $(2017)^{2017}$?

1. 1
2. 3
3. 7
4. 9

Q147. [June 2018] . 2.0 marks

General Aptitude > General Knowledge

CSIR NET	2018 June	2M

Pick the correct statement:

1. The sky is blue because Sir C.V. Raman gave the correct explanation.
2. Copernicus believed that the Sun, and not the Earth, was at the centre of the Solar system.
3. The sky appears blue when seen from the Moon..
4. No solar eclipse is visible for an astronaut standing on the Moon.

Q148. [June 2018] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2018 June	2M

A librarian is arranging a thirteen-volume encyclopedia on the shelf from left to right in the following order of volume numbers: 8,11,5,4,9,1,7,6,10,3,12,2. In this pattern, where should the volume 13 be placed?

1. Leftmost
2. Rightmost
3. Between 10 and 3
4. Between 9 and 1

Q149. [June 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 June	2M

Nine eleventh of the members of a parliamentary committee are men. Of the men, two-thirds are from the Rajya Sabha. Further, 7/11 of the total committee members are from the Rajya Sabha. What fraction of the total number are women from the Lok Sabha?

1. 1/11
2. 6/11
3. 2/11
4. 3/11

Q150. [June 2018] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2018 June	2M

When a farmer was asked as to how many animals he had, he replied that all but two were cows, all but two were horses and all but two were pigs. How many animals did he have?

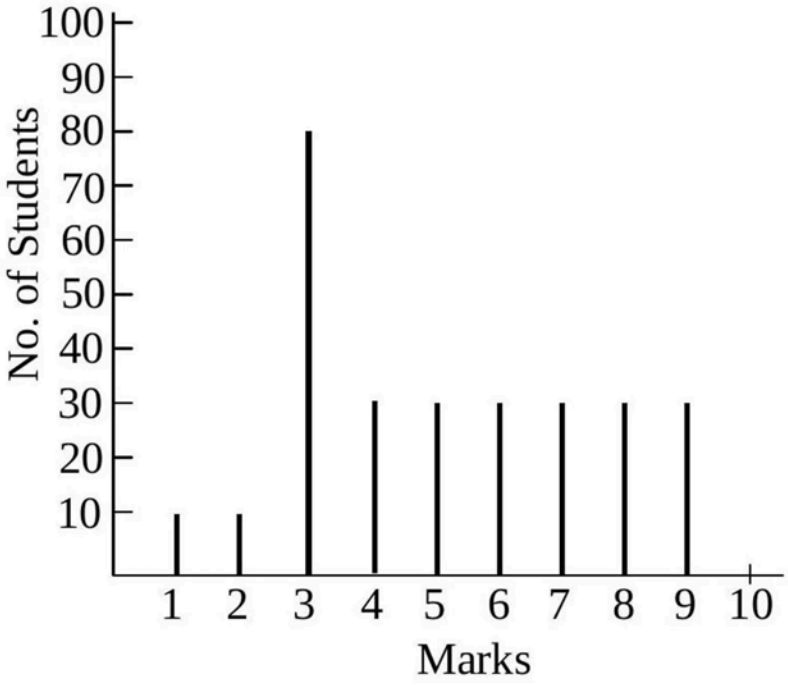
1. 3
2. 6
3. 8
4. 12

Q151. [June 2018] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2018 June	2M

The distribution of marks of students in a class is given by the following chart:



If 3.30 marks is the passing score in a 10-mark question paper, which of the following is false?

1. Majority of the students have scored above the pass mark
2. mode of the distribution is 3
3. Average marks of passing students is above 55%
4. Average marks of students who have failed is below 20%

Q152. [June 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 June	2M

Mohan lent Geeta as much money as she already had, she then spent Rs. 10. Next day, he again lent as much money as Geeta now had, and she spent Rs. 10 again. On the third day, Mohan again lent as much money as Geeta now had, and she again spent Rs. 10.If Geeta was left with no money at the end of third day, how much money did she have initially?

1. Rs. 11.25
2. Rs. 10
3. Rs. 7.75
4. Rs. 8.75

Q153. [June 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 June	2M

In a sequence of 24 positive integers, the product of any two consecutive integer is 24 . If the 17^{th} member of the sequence is 6 , the 7^{th} member is

1. 24
2. 4
3. 6
4. 17

Q154. [June 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 June	2M

The prices of diamonds having a particular color and clarity are tabulated below. How many 0.25 carat diamonds can be purchased for the price of a 2-carat diamond?

Weight of diamond (in carats)	Price of diamond (in rupees / carat)
0.25	1 lakh
0.5	2 lakh
1	4 lakh
2	8 lakh

1. 8
2. 16
3. 32
4. 64

Q155. [June 2018] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2018 June	2M

The university needs to appoint a new Vice Chancellor which will be based on seniority. Ms. West is less senior to Mr. North but more senior to Ms. East. Mr. South is senior to Ms. West but junior to Mr. North. If the senior most declines the assignment, then who will be the new vice Chancellor of the University?

1. Mr. North
2. Mr. East
3. Ms. West
4. Mr. South

Q156. [June 2018] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2018 June	2M

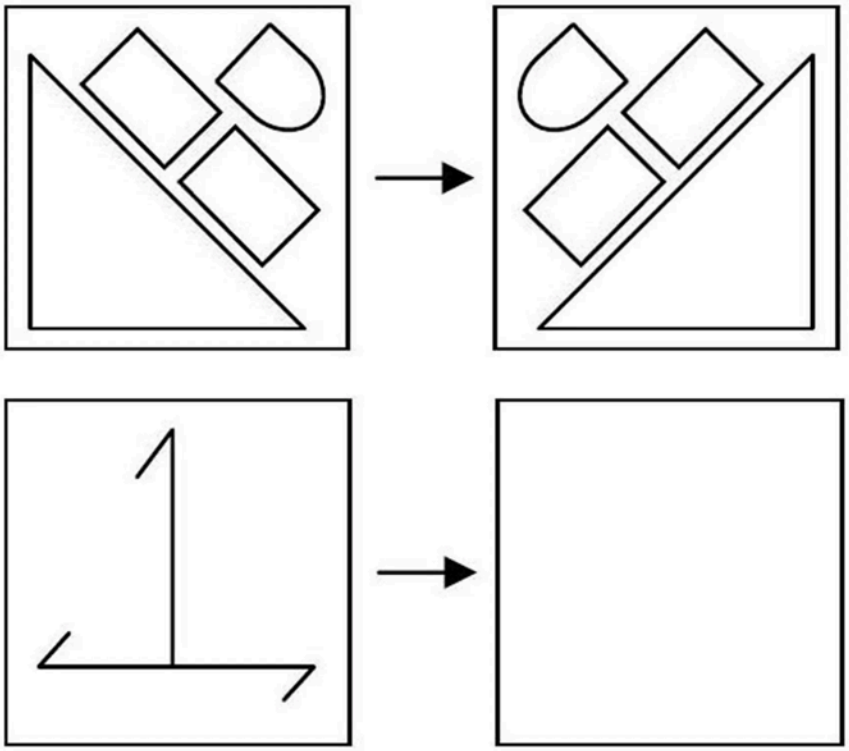
Areas of the three rectangles inside the full rectangle are given in the diagram. What is the area of the full rectangle?

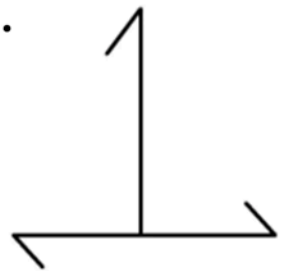
1. 36
2. 48
3. 72
4. 96

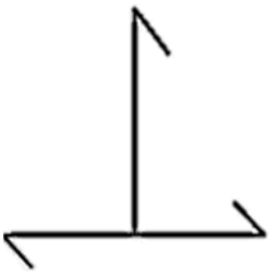
Q157. [June 2018] . 2.0 marks

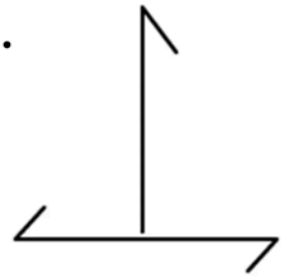
General Aptitude > Reasoning

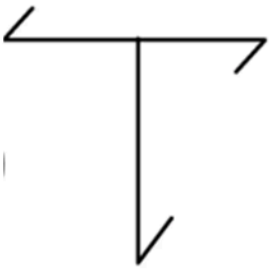
CSIR NET	2018 June	2M



1. 

2. 

3. 

4. 

Q158. [June 2018] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2018 June	2M

How much gold and copper (in g), respectively, are required to make a 120g bar of 22 carat gold?

1. 90 and 30
2. 100 and 20
3. 110 and 10
4. 120 and 0

Q159. [June 2018] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2018 June	2M

A water tank that is 40% empty holds 40 L more water than when it is 40% full. How much water does it hold when it is full?

1. 100 L
2. 75 L
3. 120 L
4. 200 L

Q160. [June 2018] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2018 June	2M

If all the angles of a triangle are prime numbers, which of the following could be one such angle?

1. 89°
2. 79°
3. 59°
4. 29°

Q161. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

A two-digit number is such that if the digit 4 is placed to its right, its value would increase by 490 . Find the original number.

1. 48
2. 54
3. 64
4. 56

Q162. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

Given that $K! = 1 \times 2 \times 3 \times \cdots \times K$, which is the largest among the following numbers?

1. $(2!)^{1/2}$
2. $(3!)^{1/3}$
3. $(4!)^{1/4}$
4. $\frac{(3!)}{2}$

Q163. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

Of three children, Uma plays all three of cricket, football and hockey. Iqbal plays cricket but not football and Tarun plays hockey but neither football nor cricket. The number of games played by at least two of the children is

1. One
2. Two
3. Three
4. zero

Q164. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

A multiple-choice exam has 4 questions, each with 4 answer choices. Every question has only one correct answer. The probability of getting all answers correct by independent random guesses for each one is

1. $(1/4)$
2. $(1/4)^4$
3. $(3/4)$
4. $(3/4)^4$

Q165. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

The result of a survey to find the most preferred leader among A,B,C is shown in the table

Votes	A	B	C
1^{st} preference	13	54	33
2^{nd} preference	24	37	39
3^{rd} preference	63	9	28

First, second and third preferences are given weights 3,2,1, respectively. Statistically, which of the following can be said to represent the preferences of the voters?

1. A and C are within 10% of each other
2. B is the most preferred
3. B and C are within 10% of each other
4. C is the most preferred

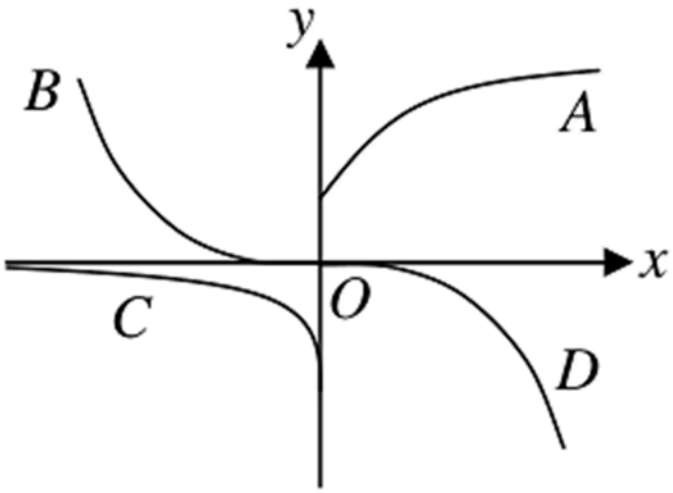
Q166. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

Which is the curve in the figure whose points satisfy the equation $y = \text{constant} \times e^{x}$

1. A
2. B
3. C
4. D



Q167. [Dec 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 Dec	2M

An ice cube of volume $10\ \mathrm{cm}^3$ is floating over a glass of water of $10\ \mathrm{cm}^2$ cross-section area and $10cm$ height. The level of the water is exactly at the brim of the glass. Given that the density of ice is 10% less than that of water, what will be the situation when ice melts completely?

1. The level falls by 10% of the side of the cube.
2. The level falls by 10% of the original height of the water column
3. The level increases by 10% of the side of the cube and water spills out
4. There is no change in the level of the water.

Q168. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

In a college admission where applicants have to choose only one subject, $1/4^{th}$ of the applicants opted for Biology. $1/6^{th}$ for chemistry, $1/8^{th}$ for Physics and $1/12^{th}$ for Maths. 18 applicants did not opt for any of the above four subjects. How many applicants were there?

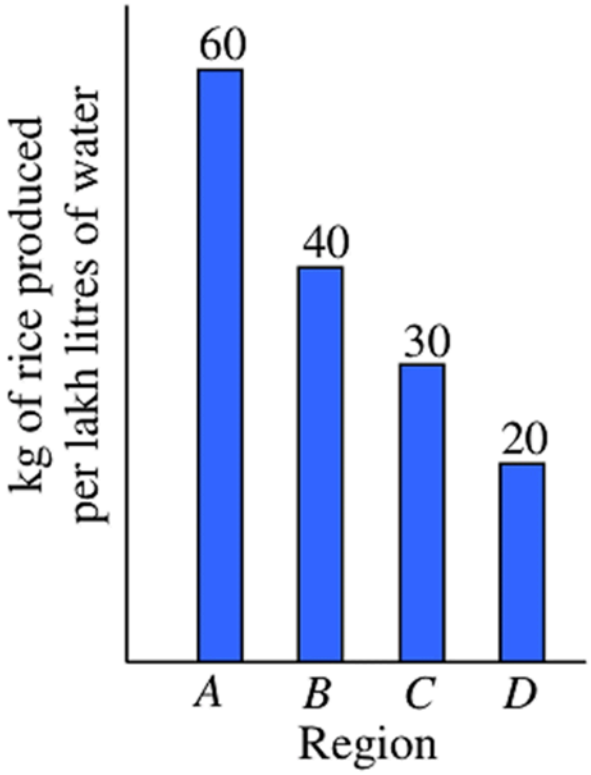
1. 22
2. 24
3. 36
4. 48

Q169. [Dec 2019] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2019 Dec	2M

Based on the bar chart shown here, which of the following inferences is correct?



1. Region A uses maximum water per kg of rice.
2. Average water consumption of the four regions is 37.5 lakh litres.
3. Region D uses thrice the amount of water used by region A per kg of rice.
4. Region B uses 20 lakh litres of less water than region A.

Q170. [Dec 2019] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2019 Dec	2M

In a race five drivers were in the following situation. M was following V, R was just ahead of T and K was the only one between T and V. Who was in the second place at that instant?

1. V
2. R
3. T
4. K

Q171. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

A bag contains 8 red balls, 17 green balls. What is the minimum number of balls that needs to be taken out from the bag to ensure getting at least one ball of each colour?

1. 19
2. 18
3. 28
4. 27

Q172. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

In a very old, stable forest, a particular species of plants grows to a maximum height of $3m$. In a large survey, it is found that 30% of the plants have heights less than 1 m and 50% have heights more than $2m$. From these observations we can say that the height of the plants increases

1. at the slowest rate when they are less than $1m$ tall
2. at the fastest rate when they are between $1m$ and $2m$ tall
3. at the fastest rate when they are more than $2m$ tall
4. at the same rate at all stages

Q173. [Dec 2019] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2019 Dec	2M

What day of the week will it be 61 days from a Friday?

1. Saturday
2. Sunday
3. Friday
4. Wednesday

Q174. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

Which of the following 7 -digit numbers CANNOT be perfect squares?

$$A = 45xyz26, B = 2xyz175, C = xyz3310$$

1. Only A
2. Only B
3. Only C
4. All three

Q175. [Dec 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 Dec	2M

A cyclist covers a certain distance at a constant speed. If a jogger covers half the distance in double the time as the cyclist, the ratio of the speed of the jogger to that of the cyclist is

1. 1: 4
2. 4: 1
3. 1: 2
4. 2: 1

Q176. [Dec 2019] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2019 Dec	2M

What is the ratio of the surface area of a cube with side 1 cm to the total surface area of the cubes formed by breaking the original cube into identical cubes of side 1 mm ?

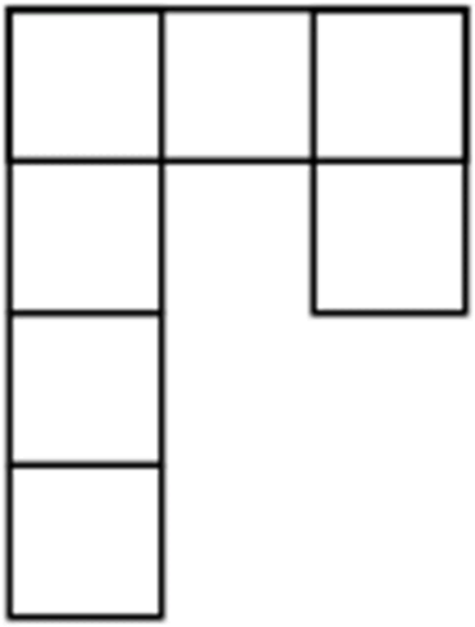
1. $\frac{1}{6}$
2. $\frac{1}{10}$
3. $\frac{1}{100}$
4. $\frac{1}{36}$

Q177. [Dec 2019] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2019 Dec	2M

How many non-square rectangles are there in the following figure, consisting of 7 squares?



1. 8
2. 9
3. 10
4. 11

Q178. [Dec 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 Dec	2M

The mean of a set of 10 numbers is M. By combining with it a second set of M numbers, the mean of the combined set becomes 10 . What is the sum of the second set of numbers?

1. $10M - 1$
2. $10M + 1$
3. 20
4. 100

Q179. [Dec 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 Dec	2M

Karan's house is 20 m to the east of Rahul's house. Mehul's house is 25 m to the North-East of Rahul's house. With respect to Mehul's house in which direction is Karan's house?

1. East
2. South
3. North-East
4. West

Q180. [Dec 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 Dec	2M

A four-wheeled cart is going around a circular track. Which of the following statements is correct, if the four wheels are free to rotate independent of each other and the cart negotiates the track stably?

1. All wheels rotate at the same speed
2. The four wheels have different speeds each
3. The wheels closer to the inside of the track move slower than the outer-side wheels
4. The wheels closer to the inside of the track move faster than the outer-side wheels

Q181. [June 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 June	2M

In a bacterial cell, a protein is synthesized at random location in the cytoplasm. The protein has to reach one pole of the cell for its appropriate function. The protein reaches the pole by

1. chemical attraction
2. random movement
3. enzymatic action
4. attraction between opposite charges

Q182. [June 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 June	2M

A precious stone breaks into four pieces having weights in the proportion $1:2:3:4$. The value of such a stone is proportional to the square of its weight. What is the percent loss in the value incurred due to breaking?

1. 0
2. 30
3. 70
4. 90

Q183. [June 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 June	2M

Two runners starting together run on a circular path taking 6 and 8 minutes, respectively, to complete one round. How many minutes later do they meet again for the first time on the start line, assuming constant speeds

1. 8
2. 24
3. 32
4. 60

Q184. [June 2019] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2019 June	2M

The distribution of grades secured by students in a class is given in the table below.

Grade	Fraction of the Population
A	0.1
B	0.4
C	0.3
D	0.2

What is the least possible population of the class?

1. 2
2. 4
3. 8
4. 10

Q185. [June 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 June	2M

The nine numbers $x_1, x_2, x_3 \ldots x_9$, are in ascending order. Their average m is strictly greater than all the first eight numbers. Which of the following is true?

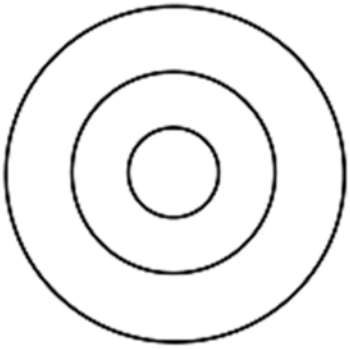
1. Average $(x_1, x_2 \ldots x_9, m) > m$ and Average $(x_2, x_3, \ldots x_9) > m$
2. Average $(x_1, x_2 \ldots x_9, m) < m$ and Average $(x_2, x_3, \ldots x_9) < m$
3. Average $(x_1, x_2 \ldots x_9, m) = m$ and Average $(x_2, x_3, \ldots x_9) > m$
4. Average $(x_1, x_2 \ldots x_9, m) < m$ and Average $(x_2, x_3, \ldots x_9) = m$

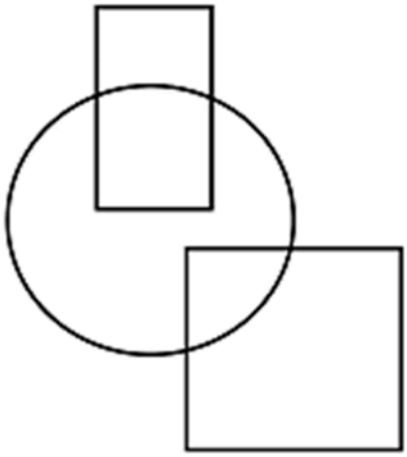
Q186. [June 2019] . 2.0 marks

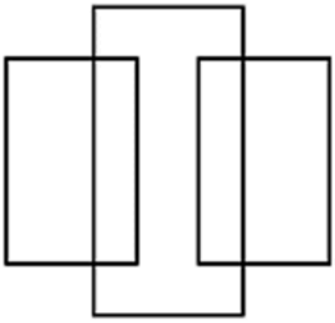
General Aptitude > Reasoning

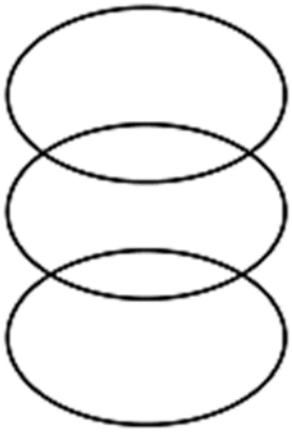
CSIR NET	2019 June	2M

Which among the following diagrams represents women, mothers, human beings?

1. 

2. 

3. 

4. 

Q187. [June 2019] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2019 June	2M

A boy and a girl make the following statements, of which at most one is correct:

The one in a white shirt says: "I am a girl" (statement -I)

The one in a blue shirt says: "I am a boy" (statement - II)

Which of the following is the correct inference?

1. Statement -I is correct but statement -II is incorrect

2. Statement - II is correct but statement - I is incorrect

3. Both statement I and II are incorrect

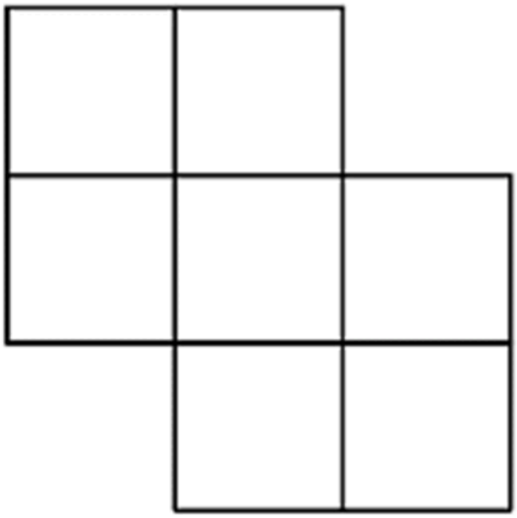
4. The correctness of the statements I and II cannot be ascertained

Q188. [June 2019] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2019 June	2M

How many quadrilaterals does the following figure have?



1. 17
2. 18
3. 19
4. 20

Q189. [June 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 June	2M

12 balls, 3 each of the colors red, green, blue and yellow are put in a box and mixed. If 3 balls are picked at random, without replacement, the probability that all 3 balls are of the same color is

1. $\frac{1}{4}$
2. $\frac{1}{12}$
3. $\frac{1}{36}$
4. $\frac{1}{55}$

Q190. [June 2019] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2019 June	2M

Some aliens observe that roosters call before sunrise every day. Having no other information about roosters and sunrises, which of the following inferences would NOT be valid?

1. Rooster-call and sunrise may be independent cyclic events with the same periodicity

2. Both may be triggered by a common cause

3. Rooster-call may be causing the sunrise

4. Sunrise cannot be the cause of rooster call as the rooster-call precedes sunrise

Q191. [June 2019] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2019 June	2M

Twenty-one liters of water in a tank is to be divided into three equal parts using only 5,8 and 12 liter capacity cans. The minimum number of transfers needed to achieve this is

1. 3
2. 4
3. 5
4. 7

Q192. [June 2019] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2019 June	2M

Of four agents Alpha, Beta, Gamma and Delta, three have to be sent together on a mission. If Alpha and Beta cannot go together, Beta and Gamma cannot go together and Gamma and Delta cannot go together, then which of the following holds?

1. Any three agents can be sent.

2. Alpha, Delta and any one out of Beta and Gamma can be sent

3. Beta, Gamma and any one out of Alpha and Delta can be sent

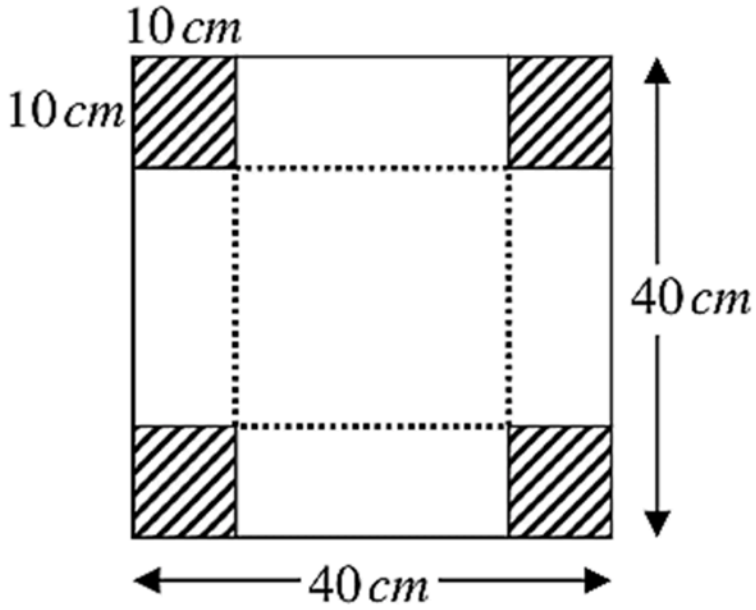
4. The mission is impossible.

Q193. [June 2019] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2019 June	2M

An open rectangular box is made by excluding the four identical corners of a piece of paper as shown in the diagram and folding it along the dotted lines



The capacity of the box (in cm^3) is

1. 8000
2. 1000
3. 4000
4. 6000

Q194. [June 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 June	2M

Which of the following is the largest?

$$2^{50}, 3^{40}, 4^{30}, 5^{20}$$

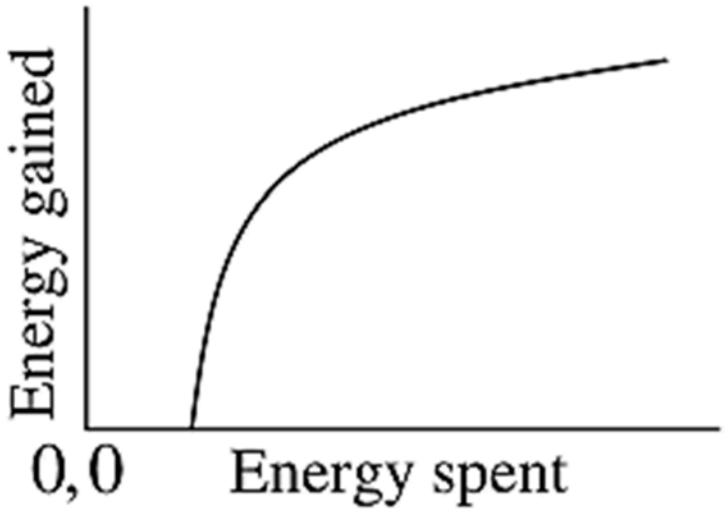
1. 2^{50}
2. 3^{40}
3. 4^{30}
4. 5^{20}

Q195. [June 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 June	2M

A monkey climbs a tree to eat fruits. The amount of energy gained from eating fruits and the energy spent in climbing on different branches have a relationship shown in the figure.



The ratio of energy gained to energy spent will be the maximum

1. at a point where the slope of the curve is the maximum

2. at a point where the slope of the curve is unity

3. at a point on the curve where the tangent passes through the origin

4. at the highest point on the curve

Q196. [June 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 June	2M

The length of a cylinder is measured 10 times yielding 10 distinct values. For this set of values, consider the following statements

A. Five of these values will lie above the mean and five below it

B. Five of these values will lie above median and five below it

C. At least one value will lie above the mean

D. At least one value will lie at the median

Which of the statements are necessarily correct?

1. B and C
2. A and C
3. B and D
4. A,C and D

Q197. [June 2019] . 2.0 marks

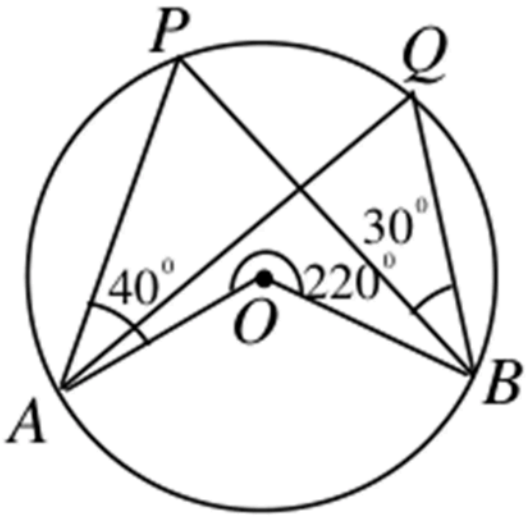
General Aptitude > Geometry

CSIR NET	2019 June	2M

In the given circle, O is the centre, $\angle PAO = 40°, \angle PBQ = 30°$ and outer angle $\angle AOB = 220°$.

Then $\angle AQB$ is

1. $70°$
2. $80°$
3. $60°$
4. $110°$

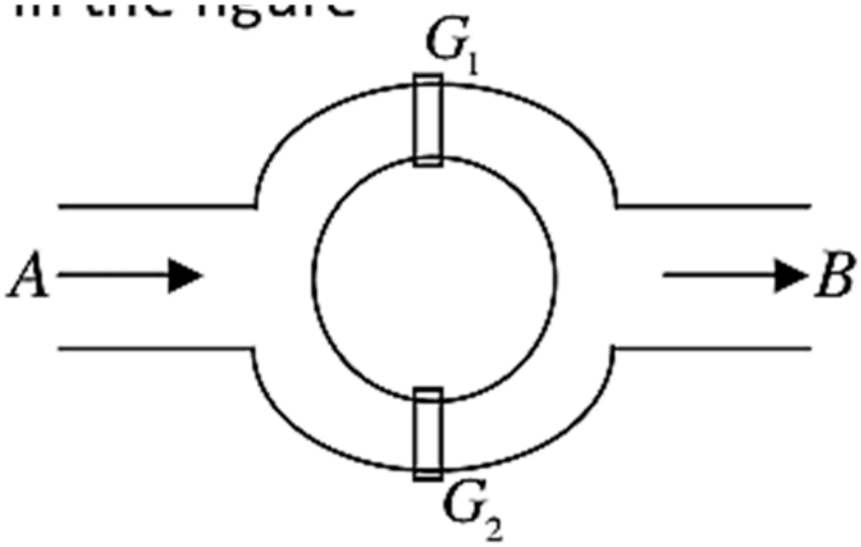


Q198. [June 2019] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2019 June	2M

A canal system is shown in the figure



Water flows from A to B through two channels. Gates G_1 and G_2, are operated independently to regulate the flow. Probability of G_1 to be open is 10% while that of G_2 is 20%. The probability that water will flow from A to B is

1. 10%
2. 20%
3. 28%
4. 30%

Q199. [June 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 June	2M

A long ream of paper of thickness t is rolled tightly. As the roll becomes larger, the length of the paper wrapped in one turn exceeds the length in the previous turn by

1. t
2. $2t$
3. πt
4. $2\pi t$

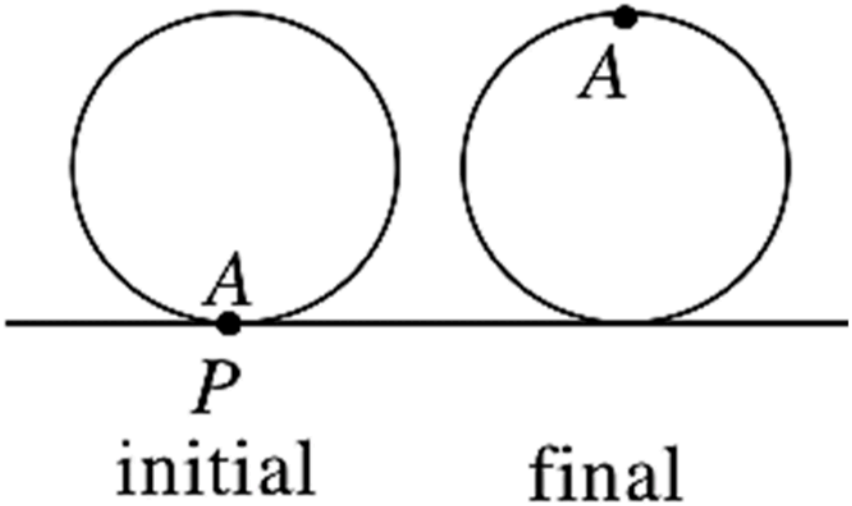
Q200. [June 2019] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2019 June	2M

Point A on a wheel of radius r touches the horizontal plane at point P. It rolls without slipping, till point A is at the highest position in the first turn. What is the final distance AP ?

1. $2r$
2. $r\sqrt{(1+\pi^2)}$
3. $r\sqrt{(4+\pi^2)}$
4. $2r\sqrt{(1+\pi^2)}$



Q201. [June 2020] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2020 June	2M

A couple lives in a house with their sons and daughters and no one else. The couple has four sons and each of the sons has exactly two sisters. How many persons live in that house?

1. 8
2. 10
3. 12
4. 14

Q202. [June 2020] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2020 June	2M

A bank pays interest to its depositors compounded yearly. If a deposit becomes Rs. 54,000/- at the end of 3^{rd} year and Rs. 64,800/- at the end of 6^{th} year, what is the principal invested in the deposit?

1. 40,000
2. 42,500
3. 45,000
4. 48,000

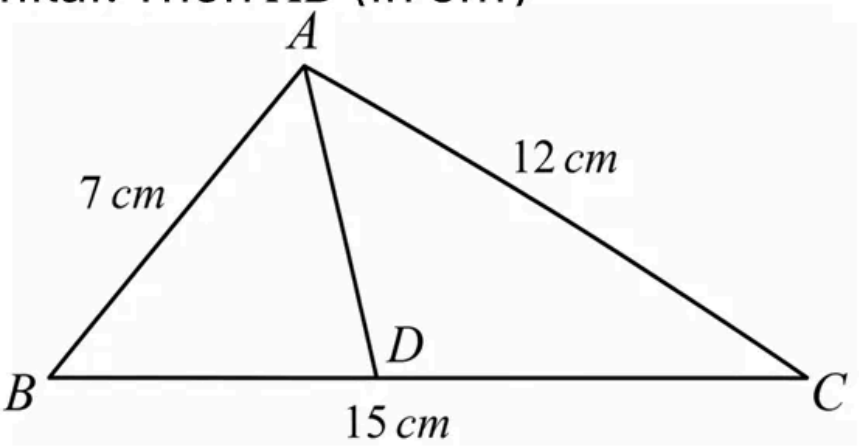
Q203. [June 2020] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2020 June	2M

In the following $\triangle ABC, AB = 7\ cm, BC = 15\ cm$ and $AC = 12\ cm$. D is a point on BC such that $\triangle ADC$ and $\triangle ABC$ are similar. Then AD (in cm) =

1. 5.6
2. 5.8
3. 6.1
4. 6.4



Q204. [June 2020] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2020 June	2M

Ten glass vases were to be packed one each in 10 boxes marked "Glass". Twelve brass vases were to be packed one each in 12 boxes marked "Brass". Four vases and boxes got mixed up. A customer orders 1 glass and 1 brass vase and is sent appropriately marked boxes. The chance that the customer does not get the ordered vases in correctly marked boxes is

1. $4/5$
2. $5/6$
3. $2/3$
4. $1/3$

Q205. [June 2020] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2020 June	2M

Anwara, Bharati, Colin and Tarun commute by different modes of transport namely, Cycle (C), Autorickshaw (A), Bus (B) and Train (T). The initials of the mode of transport and the name of the person match in exactly two cases. If Tarun travels by Train, and Colin rides neither an Autorickshaw nor a Bus, then

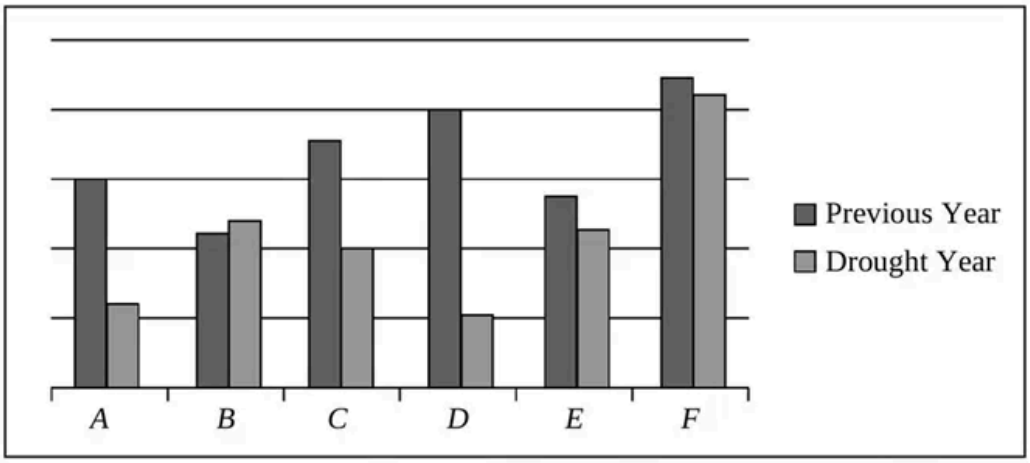
1. Anwara rides an Autorikshaw
2. Anwara rides a Bus
3. Bharati rides a Bus
4. Bharati rides a Cycle

Q206. [June 2020] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2020 June	2M

Rice production in six states A, B, C, D, E and F in two consecutive years are shown in the diagram in linear scale.



Among the states that saw a fall in production in the drought year, the maximum and minimum relative fall was, respectively, in states,

1. D and F
2. C and B
3. C and E
4. D and A

Q207. [June 2020] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2020 June	2M

Based on the table, what is the maximum number of diamonds one can buy for Rs. 10 lakh?

Size (in carat)	Rate (Rs. Lakh per carat)	Number in stock
0.25	1	20
0.5	2	10
1	4	5
2	8	1

1. 20
2. 25
3. 30
4. 36

Q208. [June 2020] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2020 June	2M

For a disease, every infected person infects three others on the 5^{th} day and recovers. On an average, men and women are infected in the proportion $4:1$. The total number of women who were infected by the end of 35 days, is closest to

1. 972
2. 820
3. 656
4. 502

Q209. [June 2020] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2020 June	2M

The maximum tolerable exposure time for noise is given to be about 8 hours at 85 dB and 90 seconds at 110 dB. Assuming linear noise tolerance response of the ear, an increase of 3 dB in noise level in this range would reduce the exposure time by roughly

1. 45 min
2. 60 min
3. 90 min
4. 120 min

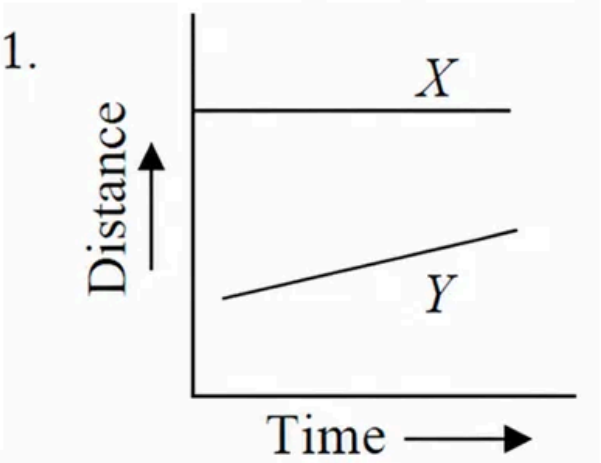
Q210. [June 2020] . 2.0 marks

General Aptitude > Basic Physics

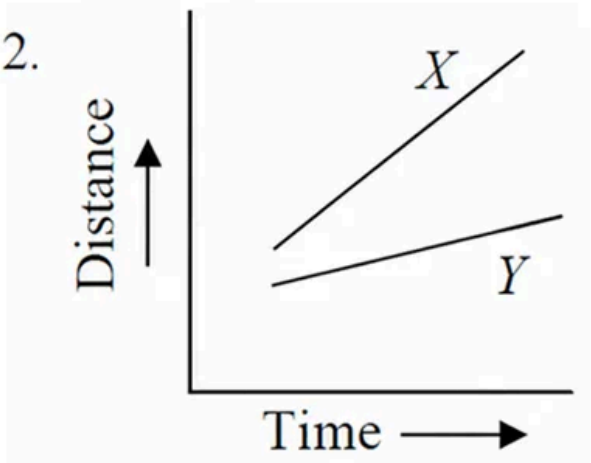
CSIR NET	2020 June	2M

Distance covered by cars, X and Y, with time is given below. Assuming constant acceleration for each car, which of the following graphs shows that X had higher acceleration than Y ?

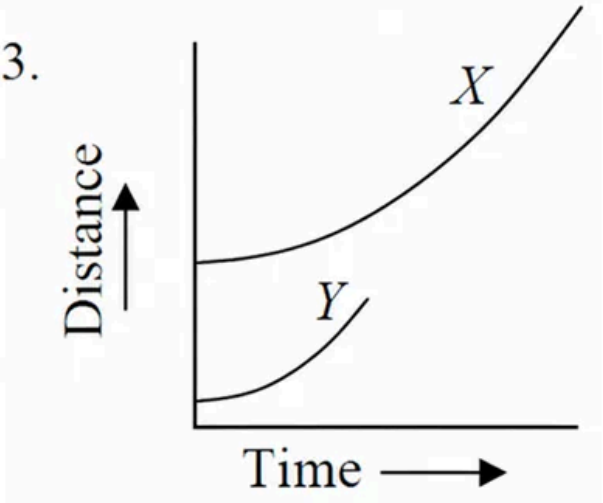
1.



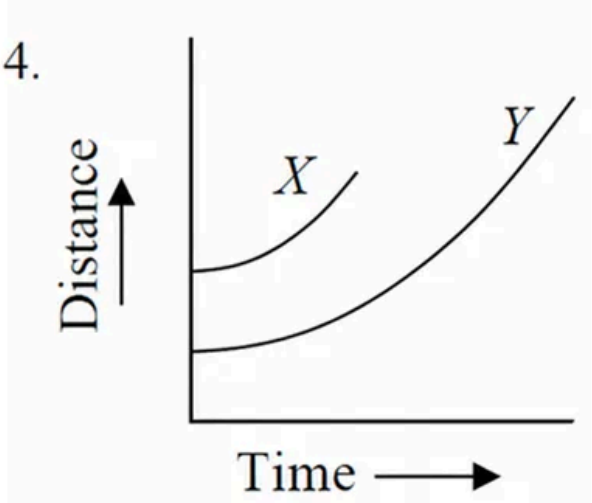
2.



3.



4.

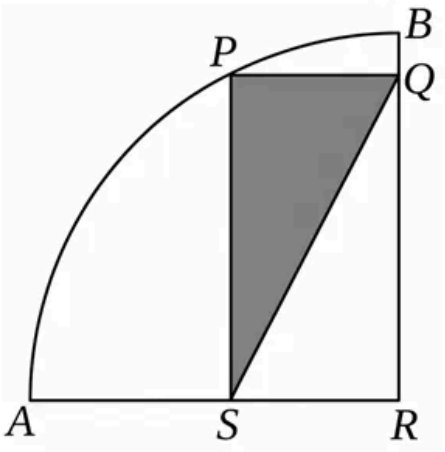


Q211. [June 2020] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2020 June	2M

PQRS is a rectangle inscribed in a quarter circle as shown. The area of shaded region is $24\,cm^2$ and $PQ = 6cm$. The area of the quarter circle is



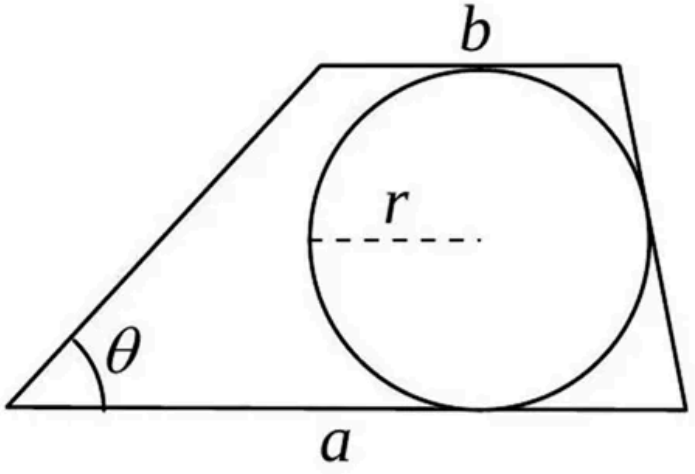
1. 36π
2. 25π
3. 13π
4. 48π

Q212. [June 2020] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2020 June	2M

Area of the trapezium as shown in the figure, is



1. $ab + r^2 \tan\theta$
2. $r(a+b)\cos\theta$
3. $2r(a+b)$
4. $r(a+b)$

Q213. [June 2020] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2020 June	2M

From an initially full bucket, water is dripping continuously from the bottom. The centre of mass of the bucket with water

1. remains stationary
2. moves upward all the way
3. moves downward all the way
4. moves downward first and then moves up

Q214. [June 2020] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2020 June	2M

Seven persons A, B, C, D, E, F and G are sitting in a row. E and B are sitting adjacent to each other. F is sitting between D and G. If C is sitting four places left of F, who among the following cannot be sitting at the centre?

1. G
2. B
3. D
4. F

Q215. [June 2020] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2020 June	2M

Starting from the same point at the same instant of time, three cyclists P, Q and R move on a circular path in the same direction with speeds 18, 27 and $36\ \mathrm{km/h}$, respectively. The circumference of the circular path is 5.4 km . After a lapse of how much time would they all meet at the starting point again?

1. 12 min
2. 24 min
3. 36 min
4. 48 min

Q216. [June 2020] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2020 June	2M

Supply of food to a community is reducing at a constant rate, as a result of which the population is dying out. Ignoring other factors, which of these statements can be made about the long-term trend for the population?

1. It will eventually die out completely
2. It will stabilise at a non-zero number
3. It will increase after reaching a minimum
4. It will fall and rise repeatedly

Q217. [June 2020] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2020 June	2M

A marksman had four successes in six attempts. What is the probability that he had three consecutive successes?

1. $9/15$
2. $12/15$
3. $13/15$
4. $6/15$

Q218. [June 2020] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2020 June	2M

The scores of the six students of Group A in an examination are 38, 45, 42, 58, 62 and 55. In the same examination, the scores of the six students of Group B of size 7 are 38, 41, 44, 46, 49 and 52, where one score is missing. If the arithmetic means of the scores of the two groups are same, then what is the missing score?

1. 80
2. 65
3. 63
4. 62

Q219. [June 2020] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2020 June	2M

A wire is bent into the shape of a square enclosing an area M. If the same wire is bent to form a circle, the area enclosed will be

1. $\frac{4\sqrt{2}M}{\pi}$
2. M
3. $\frac{4M}{\pi}$
4. $\frac{\pi M}{2\sqrt{2}}$

Q220. [June 2020] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2020 June	2M

In a flight of 600 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 km/h and the time of flight increased by 30 minutes. What was the scheduled duration of the flight?

1. 1 hour
2. 1 hour 30 minutes
3. 2 hours
4. 45 minutes

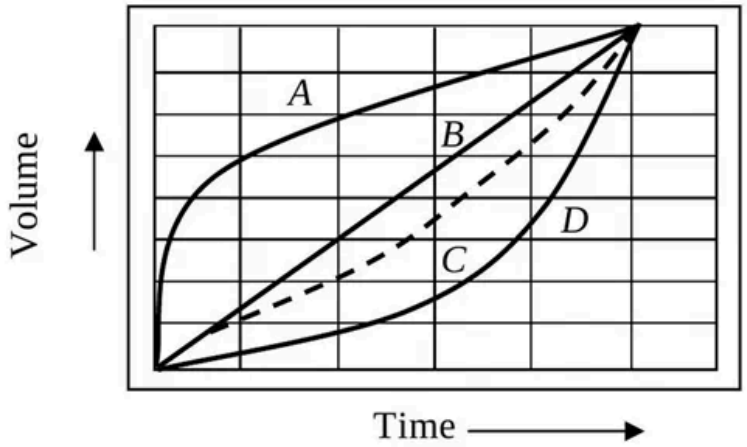
Q221. [June 2021] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2021 June	2M

An inverted cone is filled with water at a constant rate. The volume of water inside the cone as a function of times is represented the curve

1. A
2. B
3. C
4. D



Q222. [June 2021] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2021 June	2M

A spacecraft flies at a constant height R above a planet of radius R. At the instant the spacecraft is over the north-pole, the lowest latitude visible from the spacecraft is:

1. 0° (Equator)
2. 30°N
3. 45°N
4. 60°N

Q223. [June 2021] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2021 June	2M

An experiment consists of tossing a coin 20 times. Such an experiment is performed 50 times. The number of heads and the number of tails in each experiment are noted. What is the correlation coefficient between the two?

1. -1
2. $-20/50$
3. $20/50$
4. 1

Q224. [June 2021] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2021 June	2M

Which of these groups of numbers has the smallest mean?

Group A: 1,2,3,4,5,6,7,8,9

Group B: 1,2,3,4,6,6,7,8,9

Group C: 1,2,2,4,5,6,7,8,9

Group D: 1,3,3,4,5,6,7,9,9

1. A
2. B
3. C
4. D

Q225. [June 2021] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2021 June	2M

Identical balls are tightly arranged in the shape of an equilateral triangle with each side containing n balls. How many balls are there in the arrangement?

1. $n^2/2$
2. $n(n+1)/2$
3. $n(n-1)/2$
4. $(n+1)^2/2$

Q226. [June 2021] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2021 June	2M

A shopkeeper has a faulty pan balance with a zero offset. When an object is placed in the left plan it is balanced by a standard 100 g weight. When it is placed in the right pan it is balanced by a standard 80 g weight. What is the actual weight of the object?

1. 90 g
2. 88.88 g
3. 95 g
4. 85 g

Q227. [June 2021] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2021 June	2M

A and B start from the same point in opposite directions along a circular track simultaneously. Speed of B is $2/3^{rd}$ that of A. How many times will A and B cross each other before meeting at the starting point?

1. 2
2. 3
3. 5
4. 4

Q228. [June 2021] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2021 June	2M

Consider a solid cube of side 5 units. After painting, it is cut into cubes of 1 unit. Find the probability that a randomly chosen unit cube has only one side painted.

1. $56/125$
2. $36/125$
3. $44/125$
4. $54/125$

Q229. [June 2021] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2021 June	2M

How many integers in the set $\{1,2,3,\ldots\ldots,100\}$ have exactly 3 divisors?

1. 4
2. 12
3. 5
4. 9

Q230. [June 2021] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2021 June	2M

The arithmetic and geometric means of two numbers are 65 and 25, respectively. What are these two numbers?

1. 110, 20
2. 115,15
3. 120,10
4. 125,5

Q231. [June 2021] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2021 June	2M

Shyam spent half of his money and was left with as many as he had rupees before, but with half as many rupees as he had paise before. Which of the following is a possible amount of money he is left with?

1. 49 rupees and 98 paise
2. 49 rupees and 99 paise
3. 99 rupees and 99 paise
4. 99 rupees and 98 paise

Q232. [June 2021] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2021 June	2M

A cylindrical road roller having a diameter of 1.5 m moves at a speed of 3 km/h while levelling a road. How much length of the road will be leveled in 45 minutes?

1. 2.25 km
2. 0.375π km
3. 0.75π km
4. 1.5 km

Q233. [June 2021] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2021 June	2M

An intravenous fluid is given to a child of 7.5 kg, at the rate of 20 drop/minute. The prescribed dose of the fluid is 40 ml per kg of body weight. If the volume of a drop is 0.05 ml, how many hours are needed to complete the dose?

1. 2
2. 3
3. 4
4. 5

Q234. [June 2021] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2021 June	2M

A cousin is a non-sibling with a common ancestor. If there is exactly one pair of siblings in a group of 5 persons then the maximum possible number of pairs of cousins in the group is

1. 3
2. 6
3. 9
4. 10

Q235. [June 2021] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2021 June	2M

In a tournament with 8 teams, a win fetches 3 points and a draw, 1. After all teams have played three matches each, total number of points earned by all teams put together must lie between

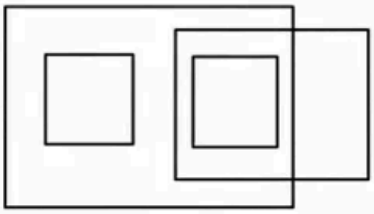
1. 24 and 36
2. 24 and 32
3. 12 and 24
4. 32 and 48

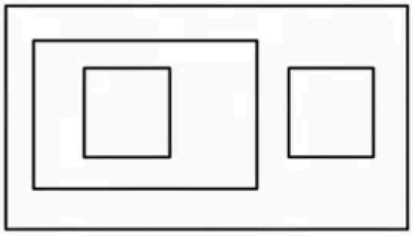
Q236. [June 2021] . 2.0 marks

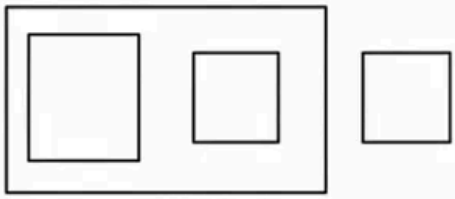
General Aptitude > Reasoning

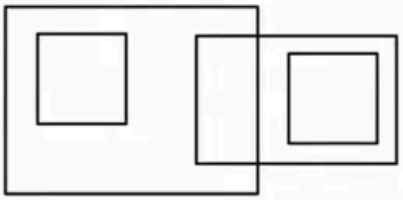
CSIR NET	2021 June	2M

An appropriate diagram to represent the relations between the categories KEYBOARD, HARDWARE, OPERATING SYSTEM and CPU is

1. 

2. 

3. 

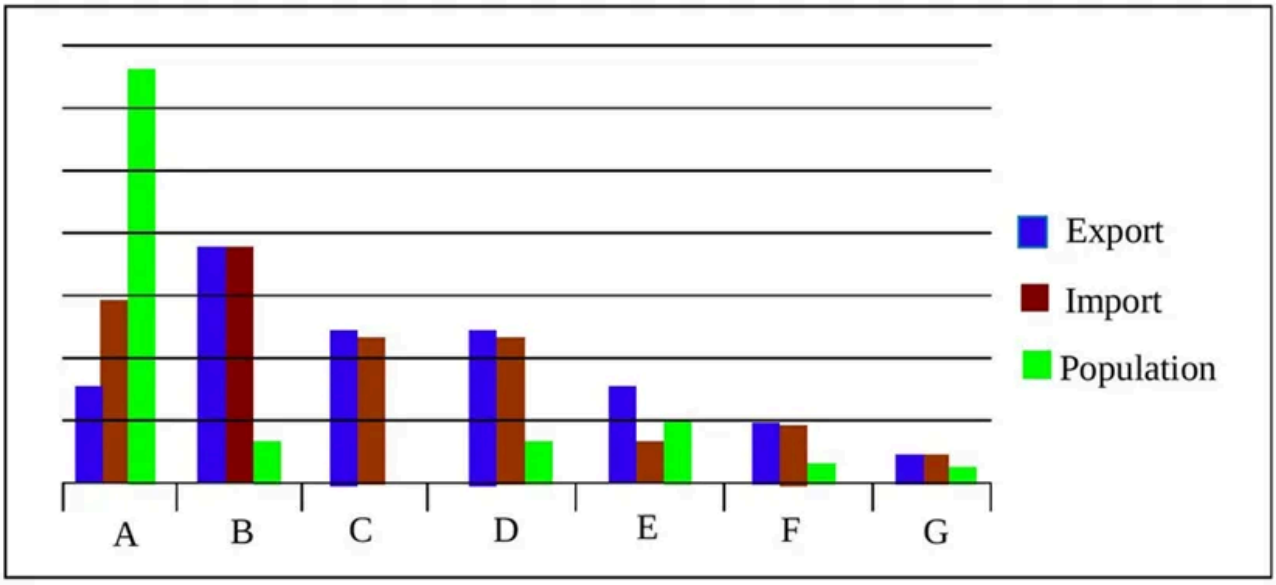
4. 

Q237. [June 2021] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2021 June	2M

Trade figures populations in appropriate units in a certain year are given for 7 countries.



If countries are ranked according to the difference in their per capita exports over import, the best and worst ranking countries are respectively

1. C and A
2. A and E
3. C and B
4. A and F

Q238. [June 2021] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2021 June	2M

At least two among three persons A, B and C are truthful. If A calls B a liar and if B calls C a liar, then which of the following is FALSE?

1. A is truthful
2. B is truthful
3. C is truthful
4. At least one is a liar

Q239. [June 2021] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2021 June	2M

The maximum area of a right-angled triangle inscribed in a circle of radius r is

1. $2r^2$
2. $r^2/2$
3. $\sqrt{2}r^2$
4. r^2

Q240. [June 2021] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2021 June	2M

If we replace the mathematical operations in the expression $(11 + 4 - 2) \div 24 \times 6$ as given in the table: Then is new value is

Operation	+	-	×	÷
Replaced by	-	×	÷	+

1. $23/6$
2. 1
3. 18
4. 7

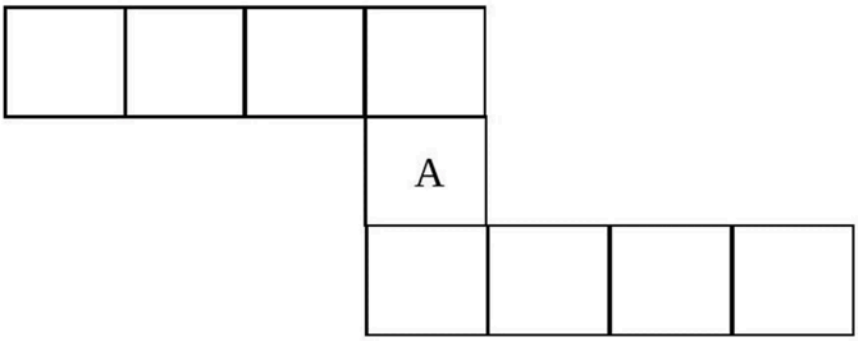
Q241. [June 2022] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2022 June	2M

The squares in the following sketch are filled with digits 1 to 9 , without any repetition, such that the numbers in the two horizontal rows add up to 20 each. What number appears in the square labelled A in the vertical column?

1. It cannot be ascertained in the absence of the sum of the numbers in the column
2. 3
3. 5
4. 7



Q242. [June 2022] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2022 June	2M

Sections A, B, C and D of a class have 24, 27, 30 and 36 students, respectively. One section has boys and girls who are seated alternately in three rows, such that the first and the last positions in each row are occupied by boys. Which section could this be?

1. A
2. B
3. C
4. D

Q243. [June 2022] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2022 June	2M

In a round-robin tournament, after each team has played exactly four matches, the number of wins / losses of 6 participating teams are as follows

Which of the two teams have certainly NOT played with each other?

Team	Win	Loss
A	4	0
B	0	4
C	3	1
D	2	2
E	0	4
F	3	1

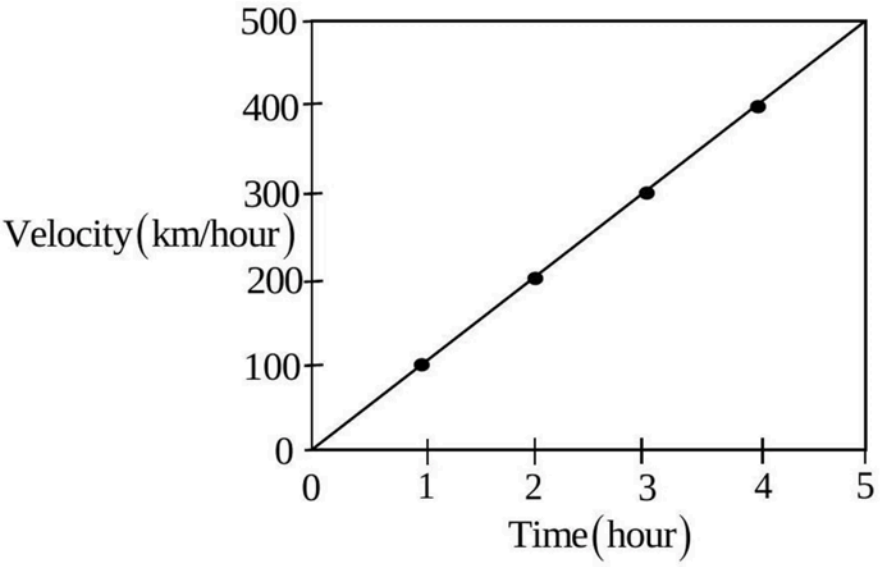
1. A and B
2. C and F
3. E and D
4. B and E

Q244. [June 2022] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2022 June	2M

Given plot describes the motion of an object with time.



1. The object is moving with a constant velocity.
2. The object covers equal distance every hour.
3. The object is accelerating.
4. Velocity of the object doubles every hour.

Q245. [June 2022] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2022 June	2M

If one letter each is drawn at random from the words CAUSE and EFFECT, the chance that they are the same is

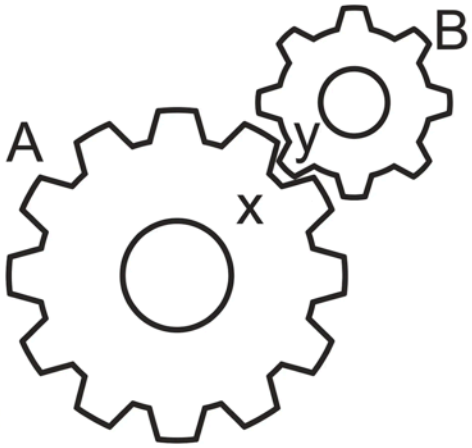
1. $1/30$
2. $1/11$
3. $1/10$
4. $2/11$

Q246. [June 2022] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2022 June	2M

A vehicle has tyres of diameter 1 m connected by a shaft directly to gearwheel A which meshes with gearwheel B as shown in the diagram. A has 12 teeth and B has 8 . If points x on A and y on B are initially in contact, they will again be in contact after the vehicle has travelled a distance (in meters)



1. 2π
2. 3π
3. 4π
4. 12π

Q247. [June 2022] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2022 June	2M

A liar always lies and a non-liar, never. If in a group of n persons seated around a roundtable everyone calls his/her left neighbor a liar, then

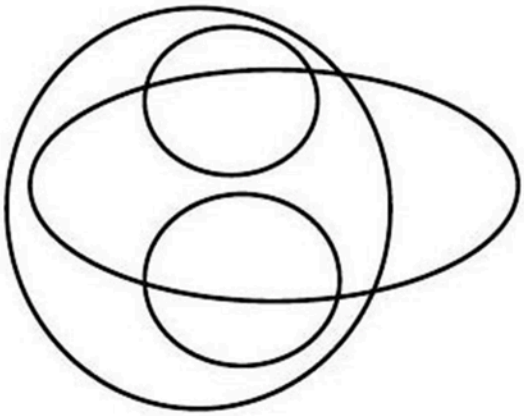
1. all are liars.
2. n must be even and every alternate person is a liar
3. n must be odd and every alternate person is a liar
4. n must be a prime

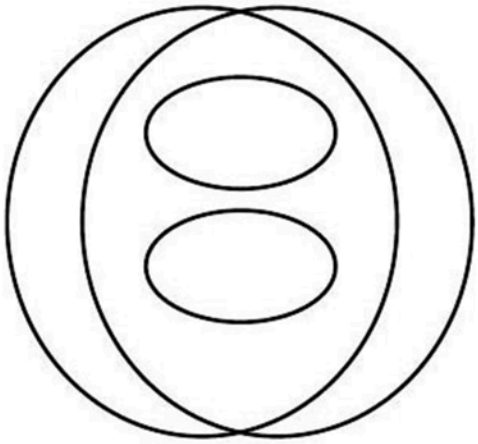
Q248. [June 2022] . 2.0 marks

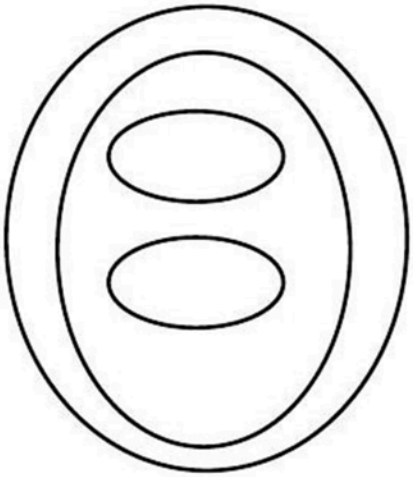
General Aptitude > Reasoning

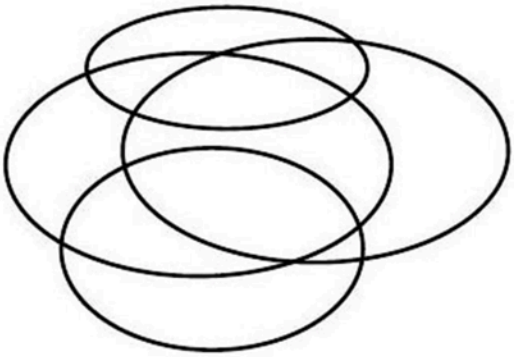
CSIR NET	2022 June	2M

The correct pictorial representation of the relations among the categories PLAYERS, FEMALE CRICKETERS, MALE FOOTBALLERS and GRADUATES is

1. 

2. 

3. 

4. 

Q249. [June 2022] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2022 June	2M

What is the product of the number of capital letters and the number of small letters of the English alphabet in the following text?

A4;={c8%$56((+B/;,.H&r]]](u];#~K@>83<??/STvx%^(d)L:/<-N347)))2;:$+}E$###{w}`".:/89

1. 17
2. 37
3. 53
4. 63

Q250. [June 2022] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2022 June	2M

On a track of 200 m length, S runs from the starting point and R starts 20 m ahead of S at the same time. Both reach the end of the track at the same time. S runs at a uniform speed of $10\ \mathrm{m/s}$. If R also runs at a uniform speed, what is R's speed (in $\mathrm{m/s}$)?

1. 9
2. 10
3. 12
4. 8

Q251. [June 2022] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2022 June	2M

A plant grows by 10% of its height every three months. If the plant's height today is 1 m , its height after one year is the closest to

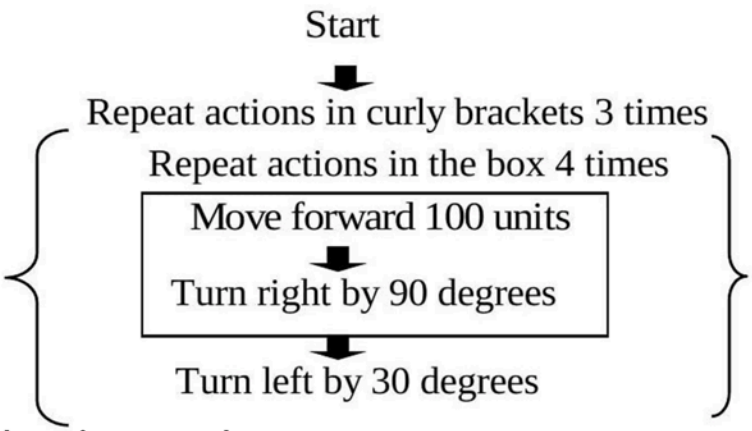
1. 1.10 m
2. 1.21 m
3. 1.33 m
4. 1.46 m

Q252. [June 2022] . 2.0 marks

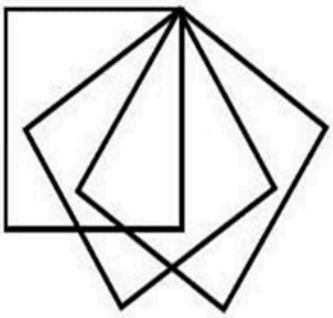
General Aptitude > Basic Physics

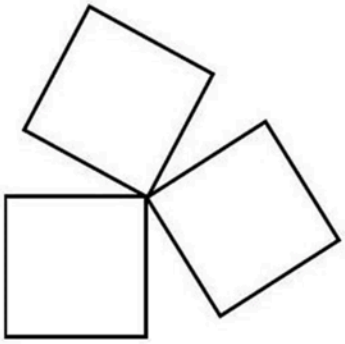
CSIR NET	2022 June	2M

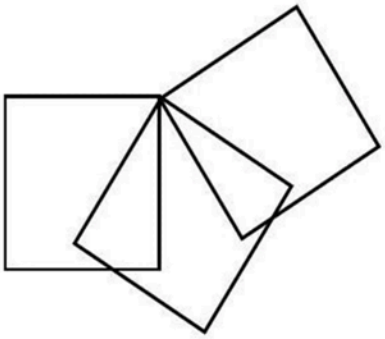
Starting from the top of a page and pointing downward, an ant moves according to the following commands

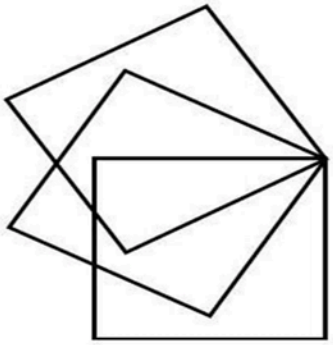


Of the following paths

A 

B 

C 

D 

Which is the correct path of the ant?

1. A
2. B
3. C
4. D

Q253. [June 2022] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2022 June	2M

In a four-digit PIN, the third digit is the product of the first two digits and the fourth digit is zero. The number of such PINs is

1. 42
2. 41
3. 40
4. 39

Q254. [June 2022] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2022 June	2M

After 12:00:00 the hour hand and minute hand of a clock will be perpendicular to each other for the first time at

1. 12:16:21
2. 12: 15: 00
3. 13: 22: 21
4. 12: 48: 08

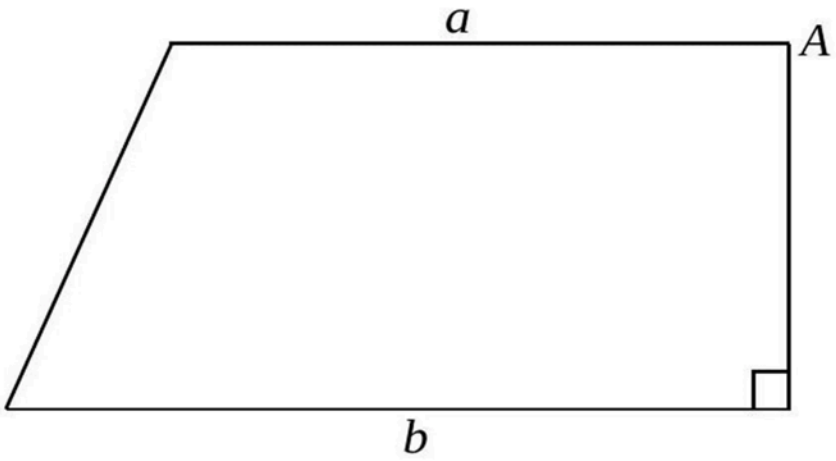
Q255. [June 2022] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2022 June	2M

At what horizontal distance from A should a vertical line be drawn so as to divide the area of the trapezium shown in the figure into two equal parts? (a and b are lengths of the parallel sides.)

1. $(a+b)/4$
2. $(a+b)/3$
3. $(a+b)/2$
4. $(2a+b)/2$



Q256. [June 2022] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2022 June	2M

I have a brother who is 4 years elder to me, and a sister who was 5 years old when my brother was born. When my sister was born, my father was 24 years old. My mother was 27 years old when I was born. How old (in years) were my father and mother, respectively, when my brother was born?

1. 29 and 23
2. 27 and 25
3. 27 and 23
4. 29 and 25

Q257. [June 2022] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2022 June	2M

A boy has kites of which all but 9 are red, all but 9 are yellow, all but 9 are green, and all but 9 are blue. How many kites does he have?

1. 12
2. 15
3. 9
4. 18

Q258. [June 2022] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2022 June	2M

Tokens numbered from 1 to 25 are mixed and one token is drawn randomly. What is the probability that the number on the token drawn is divisible either by 4 or by 6 ?

1. $8/25$
2. $10/25$
3. $9/25$
4. $12/25$

Q259. [June 2022] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2022 June	2M

A beam of square cross-section is to be cut out of a wooden log. Assuming that the log is cylindrical, what approximately is the largest fraction of the wood by volume that can be fruitfully utilized as the beam?

1. 49%
2. 64%
3. 71%
4. 81%

Q260. [June 2022] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2022 June	2M

How many rectangles are there in the given figure?

1. 6
2. 7
3. 8
4. 9

Q261. [Dec 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 Dec	2 M

In how many ways can a menu be made from 5 dishes, if the menu contains either 3 or 4 dishes?

1. 2
2. 3
3. 7
4. 15

Q262. [Dec 2023] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2023 Dec	2 M

All the four entries in column A must be matched with all those in column B. Each correctly matched option gets one mark and no mark is awarded otherwise. Which of the following mark(s) CANNOT be scored?

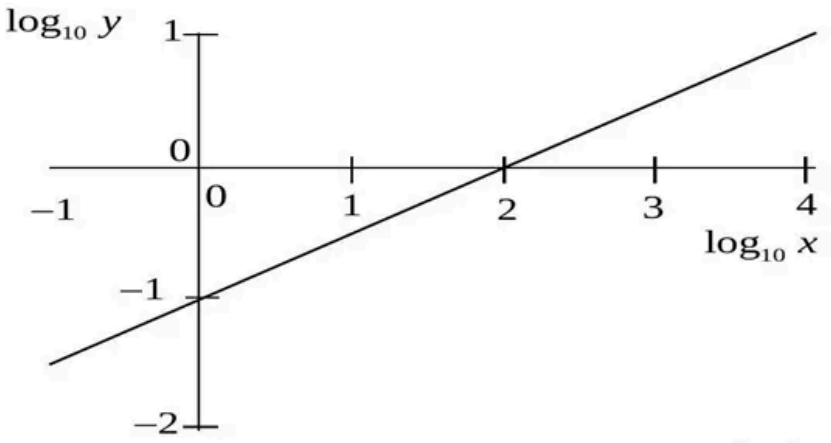
1. 3
2. 1
3. 2
4. 4

Q263. [Dec 2023] . 2.0 marks

General Aptitude > Data Analysis

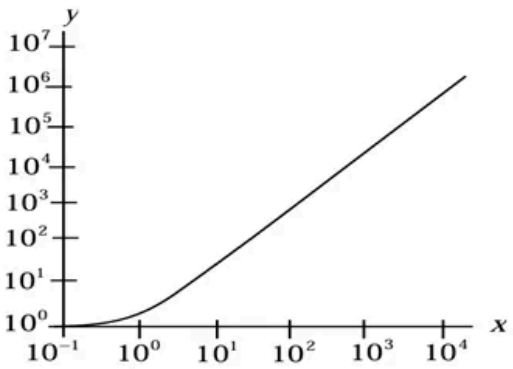
CSIR NET	2023 Dec	2 M

In the figure $\log_{10} y$ is plotted against $\log_{10} x$

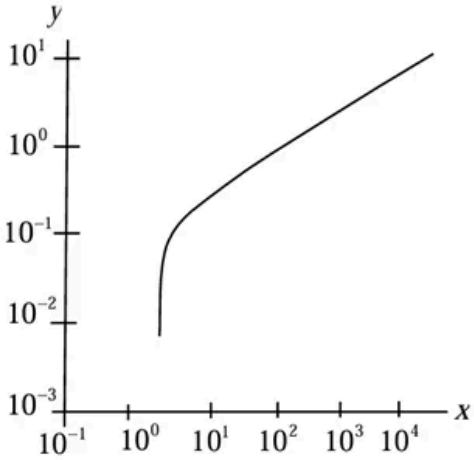


When y is plotted against x, then the plot in the provided range is

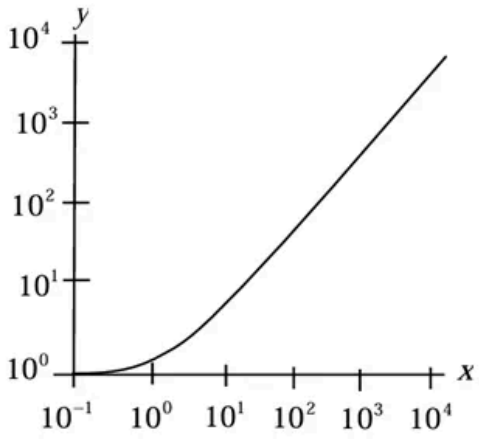
1.



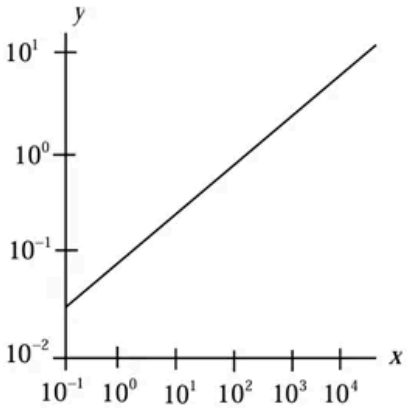
2.



3.



4.



Q264. [Dec 2023] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2023 Dec	2 M

Four children had 27 apples among them. No child had less than 5 apples. If no two children had the same number of apples, then which of the following could NOT be the number of apples a child had?

1. 5
2. 6
3. 8
4. 9

Q265. [Dec 2023] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2023 Dec	2 M

In 1979, Ramesh's age was the sum of the digits of his year of birth. In 2017, on his birthday, what was his age?

1. 49
2. 57
3. 60
4. 64

Q266. [Dec 2023] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2023 Dec	2 M

What is the minimum number of pourings needed to get 4 litre of milk from a fully filled 8 litre can, using ungraduated empty 5 and 3 litre cans? No milk should be wasted.

1. 4
2. 5
3. 6
4. 8

Q267. [Dec 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 Dec	2 M

Radius of sphere is measured with 5% uncertainty. What is the uncertainty in the volume, determined from this radius?

1. 5%
2. 6.6%
3. 125%
4. 15%

Q268. [Dec 2023] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2023 Dec	2 M

A truck from a post office is sent to collect post from a plane as per schedule. The plane lands ahead of schedule, therefore its contents are transported by a rickshaw. The rickshaw meets the truck 30 minutes after the arrival of plane, and the post is transferred. The truck returns to the post office 20 minutes early. How early did the plane arrive? (Assume all transactions are instantaneous).

1. 10 minutes
2. 20 minutes
3. 30 minutes
4. 40 minutes

Q269. [Dec 2023] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2023 Dec	2 M

A person's viral load measured in some unit was 15,25,50,200,300,150 and 30 on days 1 to 7, respectively. The maximum relative change took place between

1. day 3 to day 4
2. day 4 to day 5
3. day 5 to day 6
4. day 6 to day 7

Q270. [Dec 2023] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2023 Dec	2 M

The time seen in a mirror placed opposite a numberless analog (with hands) wall clock is 4 h 55 min . What approximately is the correct time?

1. 4 h 55 min
2. 5 h 05 min
3. 7 h 05 min
4. 1 h 35 min

Q271. [Dec 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 Dec	2 M

For every 5 chocolates that Ramesh gets, Suresh gets 3 chocolates. Geeta gets 3 chocolates for every 2 chocolates that Suresh gets. If Geeta has 18 chocolates, then the sum of chocolates with Ramesh and Suresh is

1. 16
2. 30
3. 32
4. 38

Q272. [Dec 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 Dec	2 M

In a market, you can buy a mango for Rs. 10, a lemon for Re. 1 and 8 chillies for Re.1. How many of these items do you need to buy to get a mix of 100 items for exactly Rs. 100?

1. 6 mangoes, 22 lemons, 72 chillis
2. 7 mangoes, 21 lemons, 72 chillis
3. 1 mango, 9 lemons, 80 chillis
4. 8 mangoes, 12 lemons, 80 chillis

Q273. [Dec 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 Dec	2 M

The sum of the two positive integers is 14 . Then their product CANNOT be divisible by

1. 12
2. 13
3. 14
4. 49

Q274. [Dec 2023] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2023 Dec	2 M

A bird keeps flying continuously between two trains, that are following each other on a straight track. The train behind is slower than the one ahead by $1.5\ \mathrm{km/h}$. If the speed of the bird is $20\ \mathrm{km/h}$, what distance would the bird cover in an hour?

1. 20 km
2. 30 km
3. 50 km
4. 60 km

Q275. [Dec 2023] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2023 Dec	2 M

SCRIPT : DIRECTOR :: ?? : CHEF

Choose the most appropriate option from the following to fill the blank

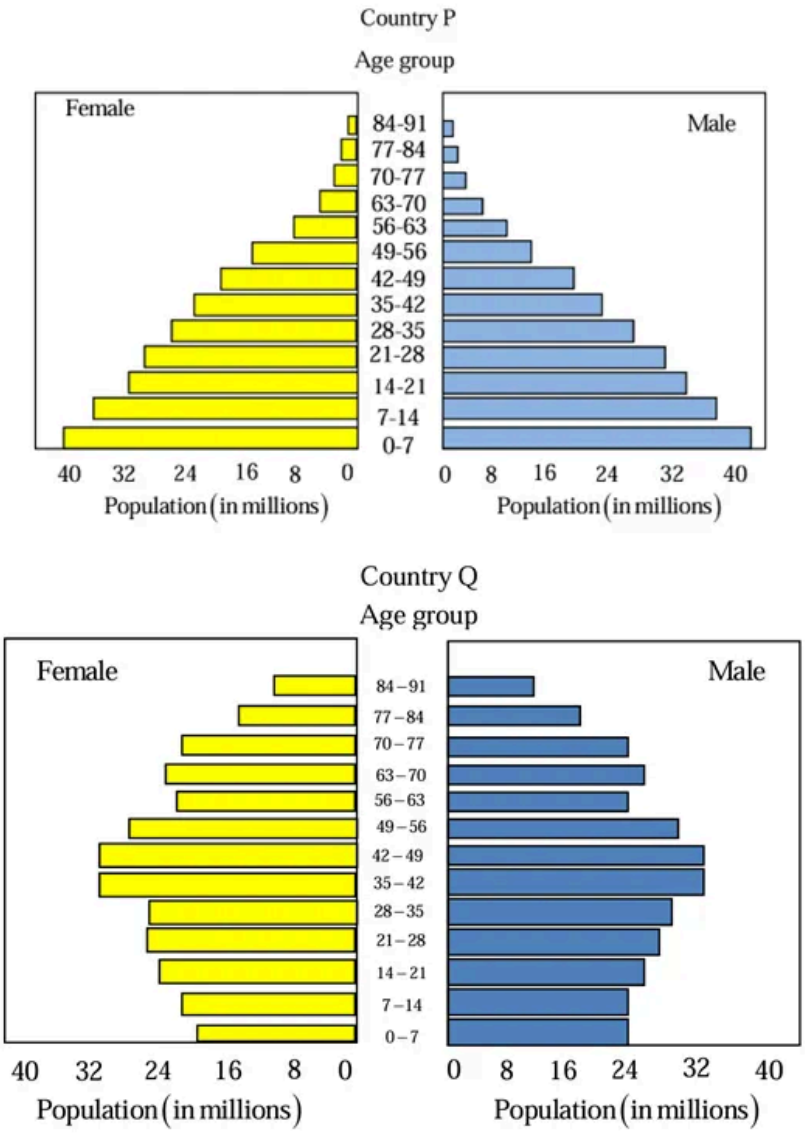
1. MENU
2. RECIPE
3. RESTAURANT
4. MEAL

Q276. [Dec 2023] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2023 Dec	2 M

The figure shows age-wise bar graph of male and female population of two countries. Which one of the following is likely to be true?

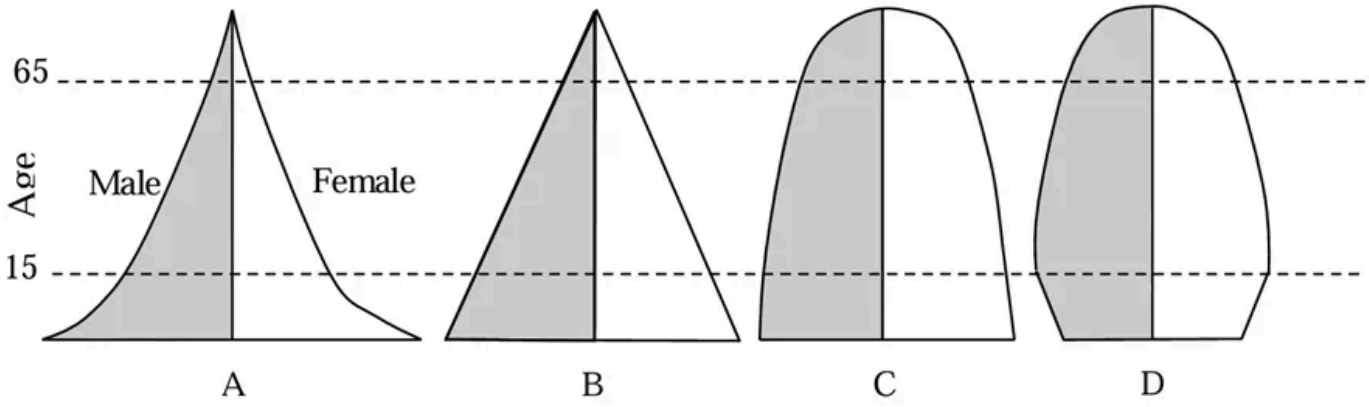


1. Country Q has higher life expectancy
2. Country P has higher per-capita income
3. The population of country P is decreasing more rapidly than Q
4. Country P has better health facilities

Q277. [Dec 2023] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2023 Dec	2 M



The above figures show population pyramids to four countries A, B, C and D . The country showing the most stable population is

1. C
2. A
3. B
4. D

Q278. [Dec 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 Dec	2 M

What is the value of x in the given magic square, (i.e, a square grid in which the sum of the numbers in rows, columns and diagonals is the same)?

x	$x-5$	8
$x+1$	y	$y-2$
2	9	4

1. 6
2. 4
3. 3
4. 1

Q279. [Dec 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 Dec	2 M

If $a < x < b$, then for which of the following relations does $0 < y < 1$ always hold?

1. $y = \frac{a-x}{b+a}$

2. $y = \frac{x-a}{b-a}$

3. $y = \frac{x-b}{b-a}$

4. $y = \frac{b-x}{a+b}$

Q280. [Dec 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 Dec	2 M

A letter is drawn at random from the following string of letters.

RAMUKYAJNAS

What is the probability that it is NOT a vowel?

1. 1/2
2. 6/11
3. 7/11
4. 8/11

Q281. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

When a student in Section A who scored 100 marks in a subject is exchanged for a student in Section B who scored 0 marks, the average marks of the Section A falls by 4, while that of Section B increases by 5. Which of the following statements is true?

1. A has the same strength as B
2. A has 5 more students than B
3. B has 5 more students than A
4. The relative strengths of the classes cannot be assessed from the data

Q282. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

Which of the numbers $A = 162^3 + 327^3$ and $B = 612^3 - 123^3$ is divisible by 489 ?

1. Both A and B
2. A but not B
3. B but not A
4. Neither A nor B

Q283. [June 2023] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2023 June	2M

At a spot S en-route, the speed of a bus was reduced by 20% resulting in a delay of 45 minutes. Instead, if the speed were reduced at 60 km after S, it would have been delayed by 30 minutes. The original speed, in km/h, was

1. 90
2. 80
3. 70
4. 60

Q284. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

Three consecutive integers a, b, c, add to 15 . Then the value of $(a-2)^2+(b-2)^2+(c-2)^2$ would be

1. 25
2. 27
3. 29
4. 31

Q285. [June 2023] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2023 June	2M

A 50 litre mixture of paint is made of green, blue, and red colours in the ratio 5: 3: 2. If another 10 litre of red colour is added to the mixture, what will be the new ratio?

1. 5:2:4
2. 4:3:2
3. 2:3:5
4. 5:3:4

Q286. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

Price of an item is increased by 20% of its cost price and is then sold at 10% discount for Rs. 2160. What is its cost price?

1. 1680
2. 1700
3. 1980
4. 2000

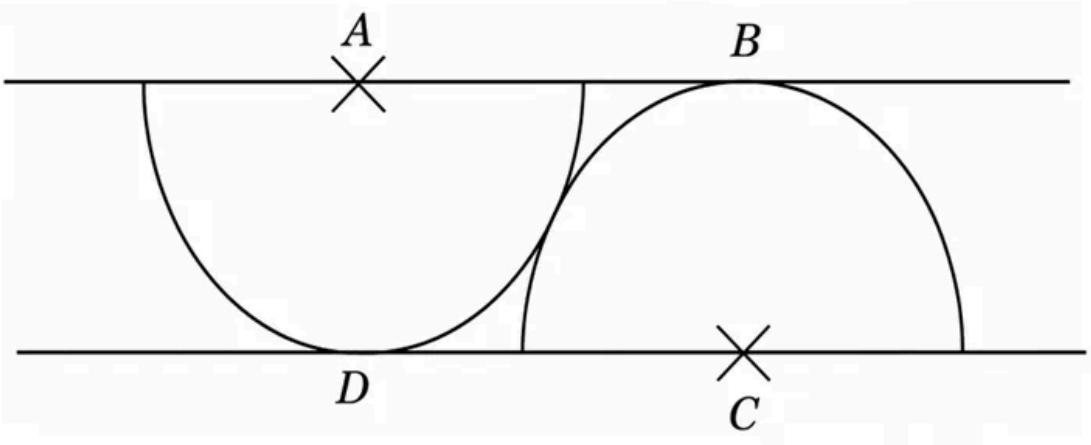
Q287. [June 2023] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2023 June	2M

Two semicircles of same radii centred at A and C, touching each other, are placed between two parallel lines, as shown in the figure. The angle BAC is

1. 30°
2. 35°
3. 45°
4. 60°



Q288. [June 2023] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2023 June	2M

What is the largest number of father-son pairs that can exist in a group of four men?

1. 3
2. 2
3. 4
4. 6

Q289. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

Three friends having a ball each stand at the three corners of a triangle. Each of them throws her ball independently at random to one of the others, once. The probability of no two friends throwing balls at each other is

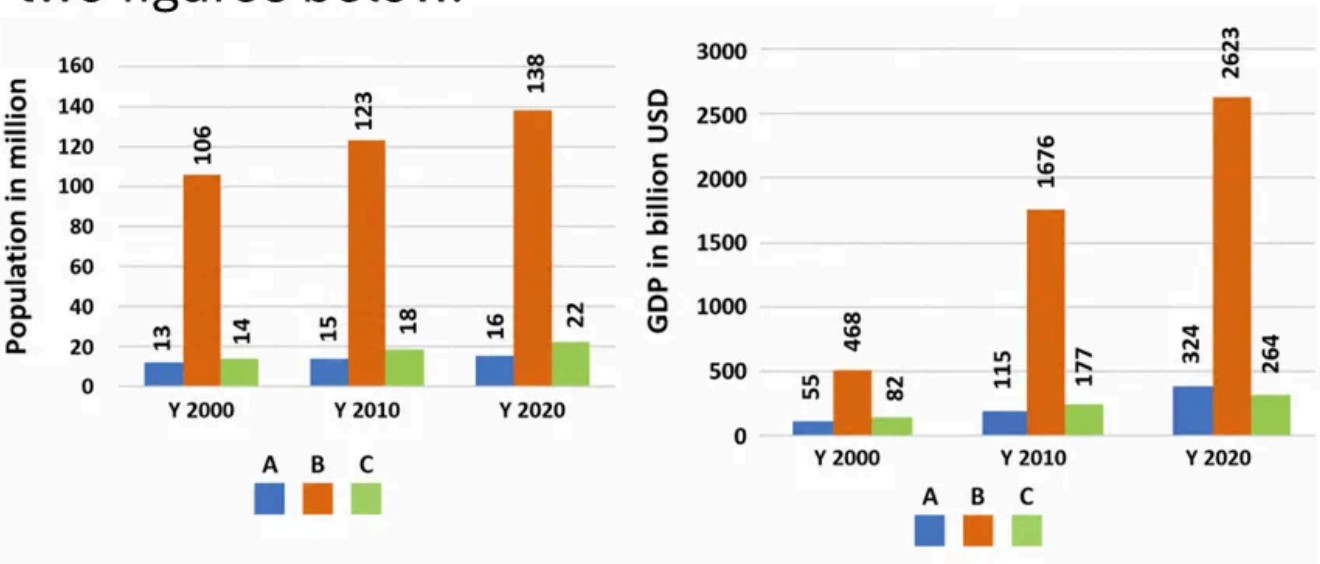
1. 1/4
2. 1/8
3. 1/3
4. 1/2

Q290. [June 2023] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2023 June	2M

The populations and gross domestic products (GDP) in billion USD of three countries A,B and C in the years 2000, 2010 and 2020 are shown in the two figures below.



The decreasing order of per capita GDP of these countries in the year 2020 is

1. A, B, C
2. A, C, B
3. B, C, A
4. C, A, B

Q291. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

Consider two datasets A and B, each with 3 observations, such that both the datasets have the same median. Which of the following MUST be true?

1. Sum of the observations in A = Sum of the observations in B.
2. Median of the squares of the observations in A = Median of the squares of the observations in B.
3. The median of the combined dataset = median of A + median of B.
4. The median of the combined dataset = median of A.

Q292. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

Three fair cubical dice are thrown, independently. What is the probability that all the dice read the same?

1. 1/6
2. 1/36
3. 1/216
4. 13/216

Q293. [June 2023] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2023 June	2M

Persons A and B have 73 secrets each. On some day, exactly one of them discloses his secret to the other. For each secret A discloses to B in a given day, B discloses two secrets to A on the next day. For each secret B discloses to A in a given day, A discloses four secrets to B on the next day. The one who starts, starts by disclosing exactly one secret. What is the smallest possible number of days it takes for B to disclose all his secrets?

1. 5
2. 6
3. 7
4. 8

Q294. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

a buffet, 4 curries A,B,C and D were served. A guest was to eat any one or more than one curry, but not the combinations having C and D together. The number of options available for the guest were

1. 3
2. 7
3. 11
4. 15

Q295. [June 2023] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2023 June	2M

Sum of all the internal angles of a regular octagon is ____ degrees.

1. 360
2. 1080
3. 1260
4. 900

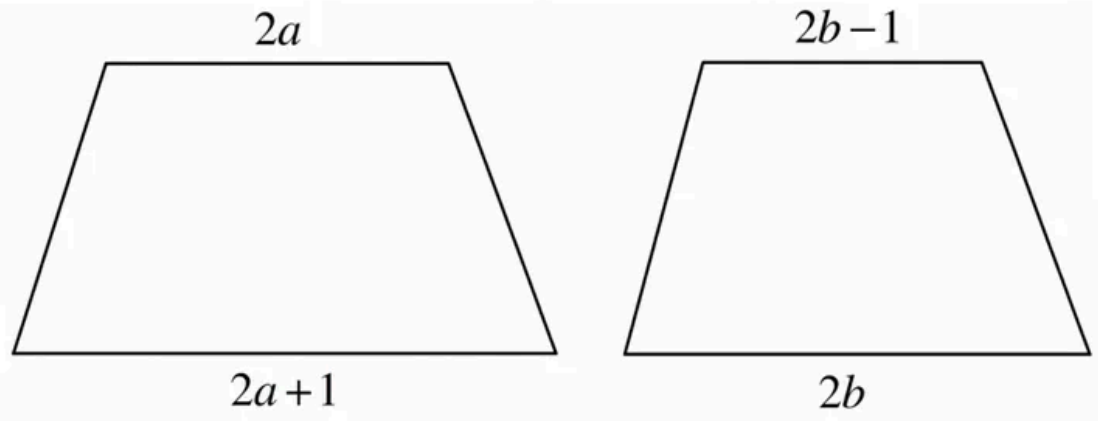
Q296. [June 2023] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2023 June	2M

If two trapeziums of the same height, as shown below, can be joined to form a parallelogram of area 2(a+b), then the height of the parallelogram will be

1. 4
2. 1
3. 1/2
4. 2



Q297. [June 2023] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2023 June	2M

If the sound of its thunder is heard 1 s after a lightning was observed, how far away (in m) was the source of thunder/lightning from the observer (given, speed of sound = $x\ m\ s^{-1}$, speed of light = $y\ m\ s^{-1}$)?

1. x^2/y
2. $xy/(y-x)$
3. $xy/(x-y)$
4. y^2/x

Q298. [June 2023] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2023 June	2M

Twenty litres of rainwater having a 2.0 μmol/L concentration of sulfate ions is mixed with forty litres water having 4.0 μmol/L sulfate ions. If 50% of the total water evaporated, what would be sulfate concentration in the remaining water

1. 3 μmol/L
2. 3.3 μmol/L
3. 4 μmol/L
4. 6.7 μmol/L

Q299. [June 2023] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2023 June	2M

A building has windows of sizes 2, 3 and 4 feet and their respective numbers are inversely proportional to their sizes. If the total number of windows is 26, then how many windows are there of the largest size?

1. 4
2. 6
3. 12
4. 9

Q300. [June 2023] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2023 June	2M

Given only one full 3 litre bottle and two empty ones of capacities 1 litre and 4 litres, all ungraduated, the minimum number of pourings required to ensure 1 litre in each bottle is

1. 2
2. 3
3. 4
4. 5

Q301. [Dec 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 Dec	2M

A chocolate bar of 5 cm length and 4 cm width has to be cut into $1\,\text{cm} \times 1\,\text{cm}$ pieces. How many minimum cuts would be required, if pieces are to be taken one-by-one? (One can start by cutting along either length or width, before removing $1\,\text{cm} \times 1\,\text{cm}$ pieces one by one)

1. 20
2. 19
3. 18
4. 10

Q302. [Dec 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 Dec	2M

The square of the geometric mean of two positive integers is 30 . The smallest possible sum of the two integers is

1. 10
2. 11
3. 13
4. 17

Q303. [Dec 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 Dec	2M

Two fair dice are thrown at random independently. What is the probability that the average of the values on their upper faces is 4 ?

1. $5/36$
2. $1/6$
3. $7/36$
4. $2/9$

Q304. [Dec 2024] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2024 Dec	2M

Ramesh is taller than Rajesh but not taller than Rupesh. Suresh's height is the average of the heights of Naresh and Rajesh. If Rajesh is taller than Naresh then who is the shortest among them?

1. Suresh
2. Naresh
3. Rupesh
4. Cannot be determined

Q305. [Dec 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 Dec	2M

Cube root of 0.0125% is closest to

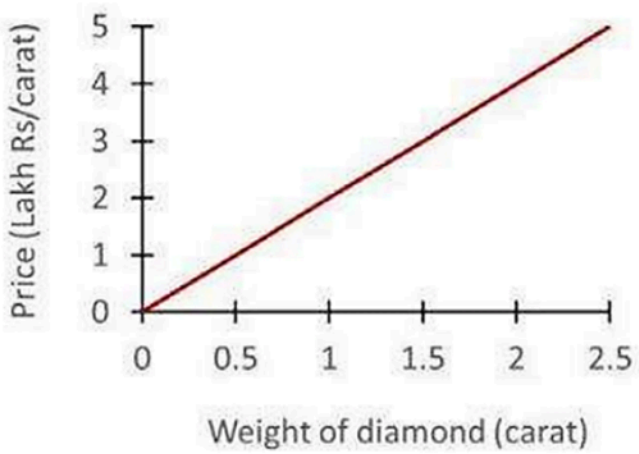
1. 0.005%
2. 0.05%
3. 0.5%
4. 5%

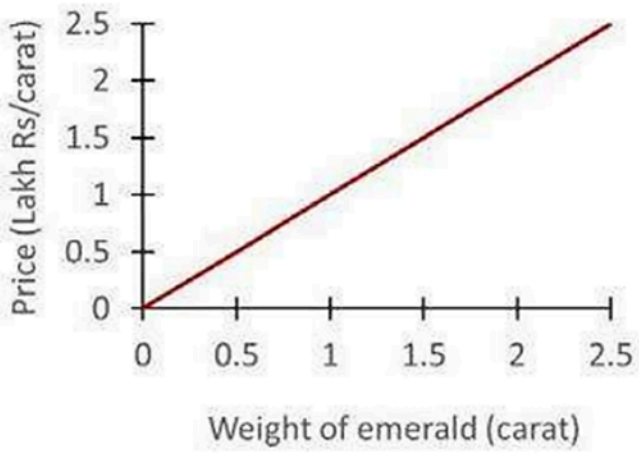
Q306. [Dec 2024] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2024 Dec	2M

The diagrams show the rates of diamond and emerald in a range of sizes. A person wants to buy a diamond and an emerald of identical size for a total of Rs. 6,75,000/−. What is that size?





1. 1 carat
2. 1.5 carat
3. 2 carat
4. 2.5 carat

Q307. [Dec 2024] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2024 Dec	2M

Ten litre (L) milk contains 10% water. How much water should be added to increase its proportion to 20% ?

1. 1 L

2. 1.25 L

3. 2 L

4. 2.25 L

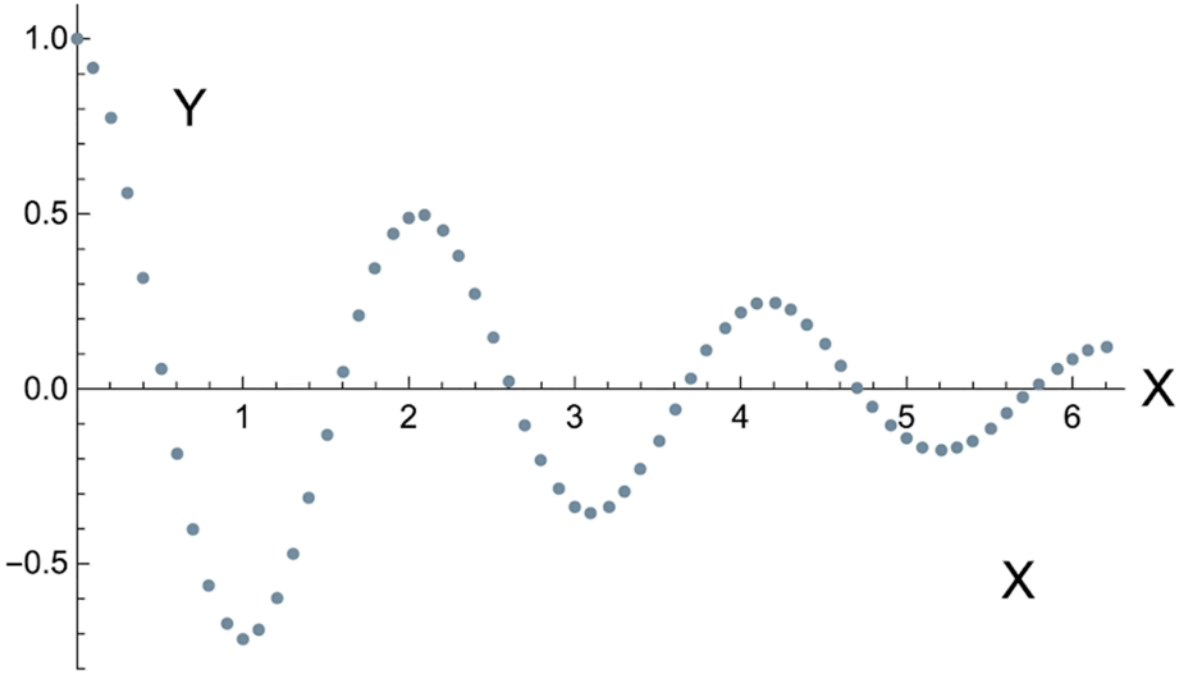
Q308. [Dec 2024] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2024 Dec	2M

An experiment has collected data in some units which is presented in the below X-Y graph.

What would be the best function to fit the data? (for some positive constant k)



1. $Y = \cos[kX]$
2. $Y = \sin[kX^2]$
3. $\mathrm{Y} = \tan[\mathrm{kX}^3]$
4. $Y = e^{-\frac{x}{k}}\cos[kX]$

Q309. [Dec 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 Dec	2M

The value of $\left(1-\frac{1}{2025}\right)\left(1-\frac{1}{2024}\right)\left(1-\frac{1}{2023}\right)\ldots\left(1-\frac{1}{2001}\right)$ is

1. $\left(1-\frac{1}{79}\right)$
2. $\left(1-\frac{1}{80}\right)$
3. $\left(1-\frac{1}{81}\right)$
4. $\left(1-\frac{1}{82}\right)$

Q310. [Dec 2024] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2024 Dec	2M

If Asha's mother is Tanisha's daughter's aunt and Tanisha has no nephew, then Asha is Tanisha's

1. mother
2. niece
3. grand mother
4. sister

Q311. [Dec 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 Dec	2M

An OTP is made of six digits using 0 to 9 . If three digits and their positions are known, what is the probability (in percentage) of discovering the full pin within 100 trials?

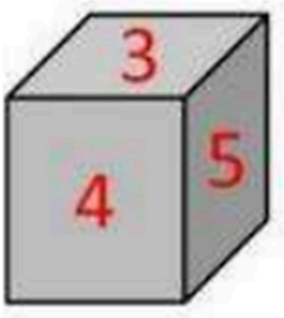
1. 10%
2. 20%
3. 30%
4. 40%

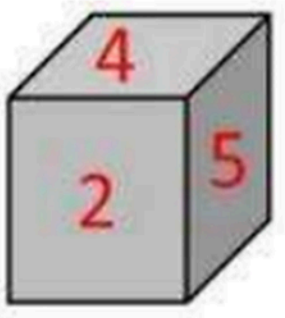
Q312. [Dec 2024] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2024 Dec	2M

The diagrams show two orientations of a die having numbers 1 to 6 written on different faces. The number on the face opposite the face showing 3





1. is 2
2. is 1
3. is 6
4. cannot be determined from the given data

Q313. [Dec 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 Dec	2M

There are four containers of equal height, whose bases are a circle, a square, a rectangle and an equilateral triangle having the same area. Which one of the following statements about these containers is true?

1. Their volumes are equal.
2. Volume of the rectangular container is larger than that of the square container.
3. Volume of the triangular container is smaller than that of the square container.
4. Volume of the square container is larger than that of the circular container.

Q314. [Dec 2024] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2024 Dec	2M

If A is B's daughter, B is C's brother and D is C's father, then what is A to D?

1. Grandfather
2. Grandmother
3. Grandson
4. Granddaughter

Q315. [Dec 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 Dec	2M

A block of marble $4\ \mathrm{m} \times 3\ \mathrm{m} \times 2\ \mathrm{m}$ in size is cut into square tiles of 1 m side having thickness of 10 cm . Assuming there is no wastage in cutting, how many tiles will be made?

1. 120
2. 240
3. 360
4. 480

Q316. [Dec 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 Dec	2M

How many 5 -digit numbers, using 0 to 9 , can be generated such that ' 123 ' appears as a string and no digit appears more than once?

1. 228
2. 108
3. 156
4. 114

Q317. [Dec 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 Dec	2M

One side and one diagonal of a rhombus are 13 cm and 24 cm , respectively. Then the area of the rhombus is

1. $90\ \text{cm}^2$
2. $100\ \text{cm}^2$
3. $110\ \text{cm}^2$
4. $120\ \text{cm}^2$

Q318. [Dec 2024] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2024 Dec	2M

A lady walks one-tenth of the total distance at 3 km/h, one-sixth she runs at 5 km/h, one-fifth at 6 km/h, and covers the remaining 16 km at 16 km/h by cycle. What is the total distance?

1. 14 km
2. 16 km
3. 24 km
4. 30 km

Q319. [Dec 2024] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2024 Dec	2M

An electric heater uses approximately 1 KWH for increasing temperature of 1 L water by 1°C. If the heating element has a rating of 10 KW , what is the time taken to raise the temperature of 1 L water by 1°C ?

1. 1 hour
2. 15 mins
3. 10 mins
4. 6 mins

Q320. [Dec 2024] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2024 Dec	2M

A monkey covers exactly 10 m on ground in each jump. What is the least number of jumps required to reach a distance 1 m away from where the monkey jumps first?

1. 1

2. 2

3. 3

4. 9

Q321. [June 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 June	2M

A large number of birds, half of which belong to specie A and the other half to specie B , rest on a tree where they are distributed randomly across the branches. In a random sample of 5 birds from the tree, what is the probability that at least one is from specie A?

1. 0.03125
2. 0.15625
3. 0.84375
4. 0.96875

Q322. [June 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 June	2M

Suppose that the increase in a population can be modelled as $\left(\frac{dN}{dt}\right) = rN\frac{(K-N)}{K}$ where N is the size of the population, K is the carrying capacity, r is the per capita growth rate and t is time. Which of the following statements is correct?

1. When $N \approx 0$, the change in population N is nearly exponential.
2. When $N = K$, the population goes extinct as dN/dt goes to zero.
3. When $N \approx 0$, the population growth dN/dt is maximum.
4. When $N \approx K/4$, the population growth dN/dt is maximum.

Q323. [June 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 June	2M

A rectangular tray of $30\ \text{cm} \times 60\ \text{cm}$ size is used for baking circular biscuits. The diameter of each biscuit is 3 cm before baking, which increases by 10% on baking. What is the maximum number of biscuits that can be baked in the tray such that the base of each biscuit is in contact with the tray?

1. 171
2. 162
3. 180
4. 200

Q324. [June 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 June	2M

In how many distinct ways can 128 identical marbles be arranged in a complete rectangular grid (disregarding the orientation of the grid)?

1. 7
2. 6
3. 5
4. 4

Q325. [June 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 June	2M

How many three-digit numbers exist whose first and last digits add up to 9 ?

1. 90
2. 81
3. 80
4. 72

Q326. [June 2024] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2024 June	2M

Among A, B, C, D, E and F, D is taller than B but shorter than F. E is taller than B , but shorter than C. B is not the shortest of all. Then A is

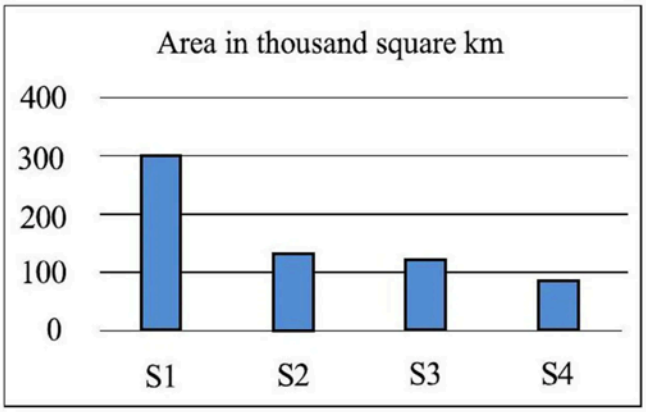
1. the shortest of all
2. the tallest of all
3. taller than E , but shorter than C
4. taller than C, but shorter than F

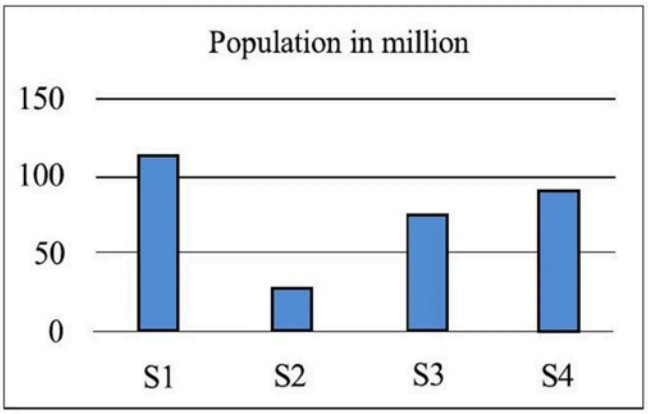
Q327. [June 2024] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2024 June	2M

Areas and populations of four states S1, S2, S3 and S4 are shown.





Their arrangement in decreasing order of population density would be

1. S4, S3, S1, S2
2. S1, S2, S3, S4
3. S4, S1, S3, S2
4. S2, S1, S3, S4

Q328. [June 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 June	2M

Among 1000 squirrel babies, 200 have three stripes on their back, 500 have two stripes on their back and the rest have four stripes on their back. While 90% of the three-striped babies survive to adulthood, only 80% of the two-striped and 70% of the four-striped babies survive to adulthood. The fraction of four-striped squirrels among the adults is nearest to

1. 0.21
2. 0.3
3. 0.266
4. 0.228

Q329. [June 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 June	2M

In a class of 70 students, 20% of girls have spectacles and 40% of boys have spectacles. If the total number of students having spectacle is 23 , the number of boys in the class is

1. 45
2. 14
3. 18
4. 25

Q330. [June 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 June	2M

A referendum on a proposal involved 7000 participants. Among the participants 3600 were women and the rest were men. 2900 participants, of whom 1300 were women, voted against while 3000 participants voted in favour. 400 women abstained. The ratio of the number of men that did not vote to the total number of participants is

1. 11:70
2. 17:35
3. 1:10
4. 8:70

Q331. [June 2024] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2024 June	2M

The population of a town is increasing at a uniform rate. If its population was 90,000 and 96000 in 2022 and 2023 respectively, what would be its population in 2024 ?

1. 102,000
2. 102,400
3. 102,720
4. 102,960

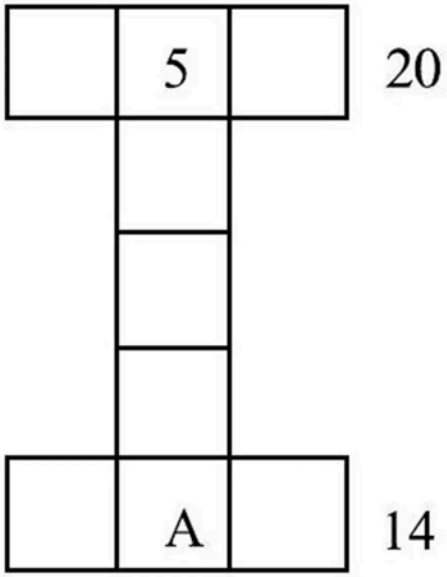
Q332. [June 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 June	2M

The squares in the following grid are filled with numbers 1 to 9, without repetition, such that the numbers in the squares forming the top and bottom rows add to 20 and 14 respectively and those forming the column to 23 . What is the value of A ?

1. 4
2. 6
3. 7
4. 8



Q333. [June 2024] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2024 June	2M

If 32XY6 is divisible by $9, X$ and Y being even decimal digits, then $X =$

1. 2
2. 4
3. 6
4. 8

Q334. [June 2024] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2024 June	2M

Canals A and B join to form canal C, all having semi-circular cross-sections of radii which are in the ratio $3:4:5$, respectively. Assume smooth merger of A and B, and ignore the possibility of flooding. If the speed s of water is the same and uniform in both A and B then the speed of water flowing in C is

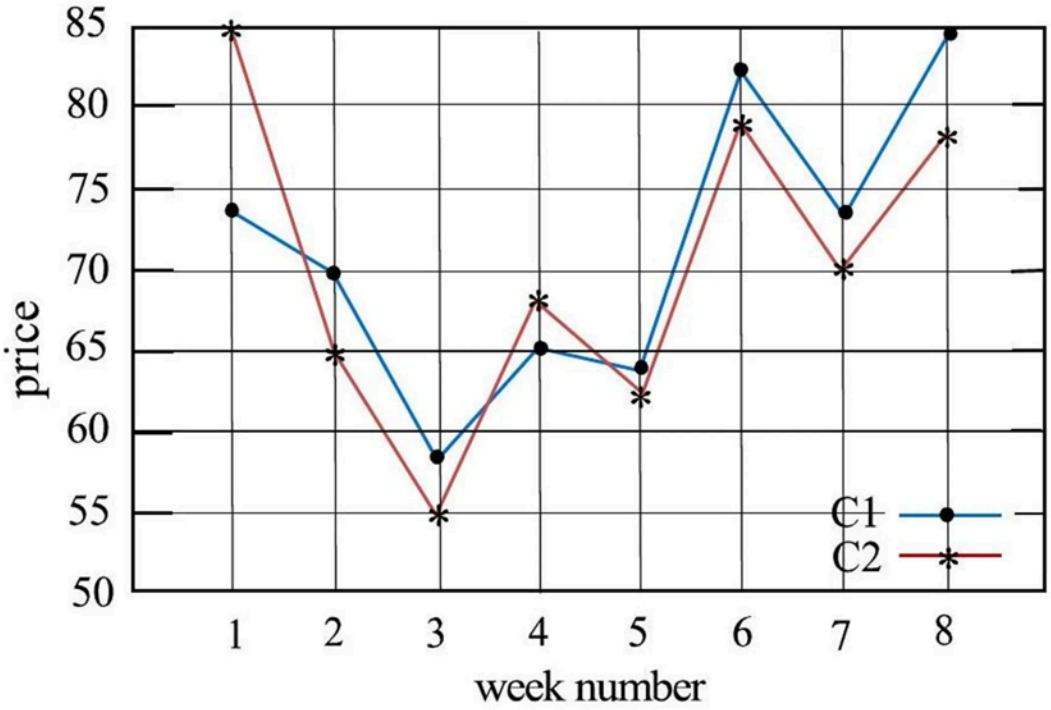
1. s
2. $7s/5$
3. $2s$
4. $5s/7$

Q335. [June 2024] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2024 June	2M

The two graphs show the change in price of two commodities C1 and C2 over 8 weeks.



Which of the statements is correct?

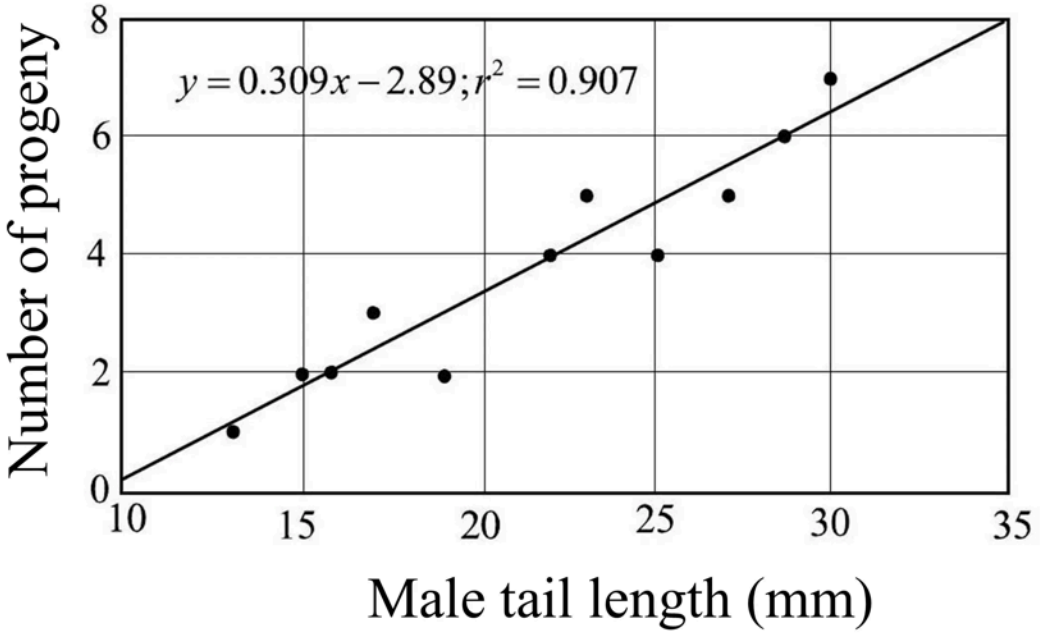
1. C1 has higher fluctuation than C2
2. Average price of C 1 is lower than that of C 2
3. The largest change in a week is shown by C2
4. C1 shows a tendency of reduction

Q336. [June 2024] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2024 June	2M

The graph shows observations and a regression line of the number of progeny on the tail length of male birds.



Which of the following can be inferred from the graph?

1. Producing less progeny decreases the tail length of the males.
2. Males cannot have a tail length lesser than 10 mm .
3. Males with longer tails tend to father more progeny.
4. For a male with a 25 mm tail, the expected number of progeny is 4 .

Q337. [June 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 June	2M

On a one-way road, broken lines consisting of 2.5 m length segments separated by 2.5 m gaps are painted along the length of the road to demarcate 3 lanes, and continuous lines are painted along both the borders. What is the total length of the painted lines (in m) over a 250 m stretch of the road?

1. 500
2. 625
3. 750
4. 1000

Q338. [June 2024] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2024 June	2M

A patient requires administration of 500 ml of an intravenous fluid in 1 hour. What is the approximate drip rate (number of drops per minute) at which the fluid should be administered, if the volume of a drop is 0.05 ml ?

1. 76
2. 152
3. 167
4. 332

Q339. [June 2024] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2024 June	2M

A record player stylus moves along a spiral groove cut on an annular portion of a disc with inner radius 4 cm and outer radius 10 cm . If the record turns 100 times when playing, the stylus travels approximately

1. 2.2 m
2. 4.4 m
3. 22 m
4. 44 m

Q340. [June 2024] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2024 June	2M

An egg tray has 30 cavities to hold eggs in 5 rows and 6 columns. Each cavity is surrounded by 4 raised corners shared by adjacent cavities. How many raised corners does the egg tray have?

1. 30
2. 35
3. 36
4. 42

Q341. [Dec 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 Dec	2M

Suppose $a_1, a_2, \ldots, a_{300}$ are integers such that $a_{i-1} + a_i + a_{i+1} = 2025$ for all $i = 2,3, \ldots, 299$. If $a_7 = -5, a_9 = 37$, then the value of a_{106} is

1. 1993
2. 37
3. -5
4. 2030

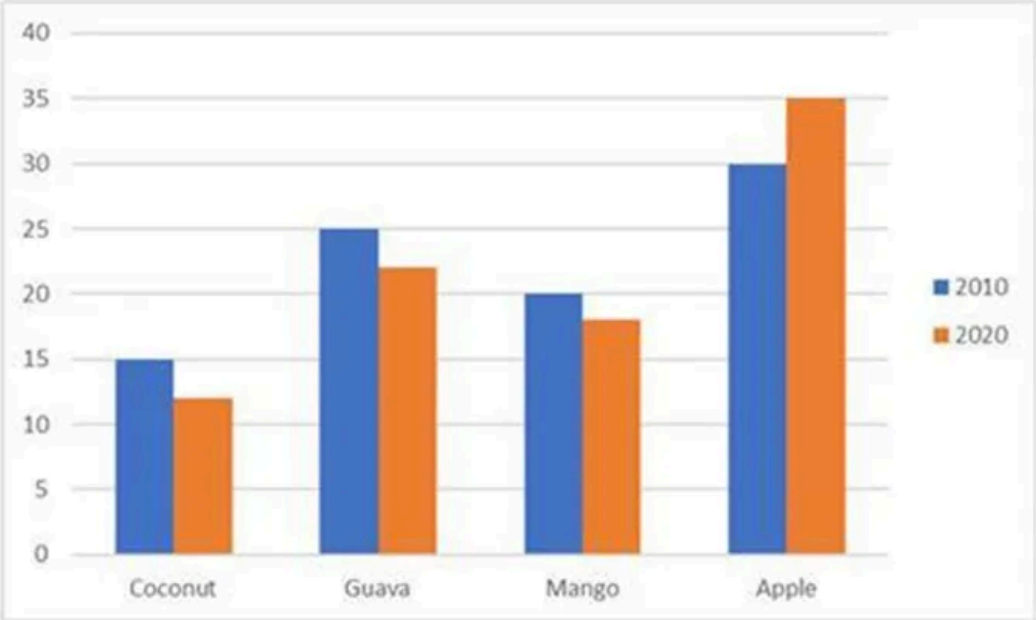
Q342. [Dec 2025] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2025 Dec	2M

The numbers (in millions) of coconut, guava, mango and apple trees in a region in 2010 and 2020 are shown in the following figure.

The maximum relative change in numbers was for



1. coconut trees
2. guava trees
3. mango trees
4. apple trees

Q343. [Dec 2025] . 2.0 marks

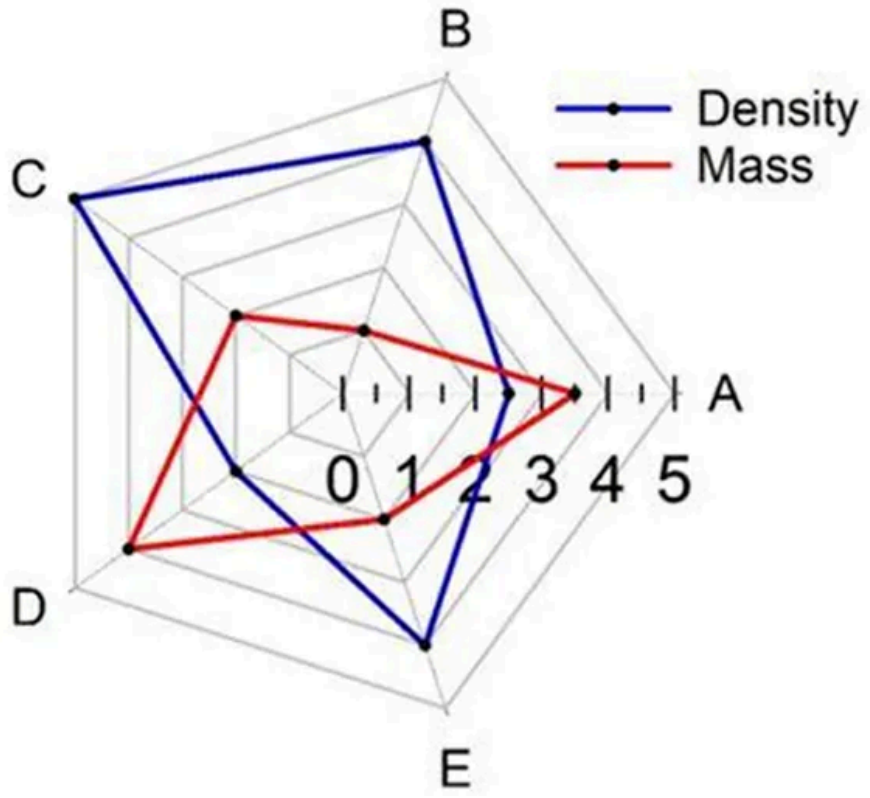
General Aptitude > Data Analysis

CSIR NET	2025 Dec	2M

The following figure shows densities and masses of five objects (A to E).

The object with the largest volume is ___ .

1. A
2. B
3. D
4. E



Q344. [Dec 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 Dec	2M

A lady bought some apples, each costing Rs. 25, and some bananas each costing Rs 6, for a total of Rs. 378. In how many ways could she have chosen the numbers of apples and bananas?

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

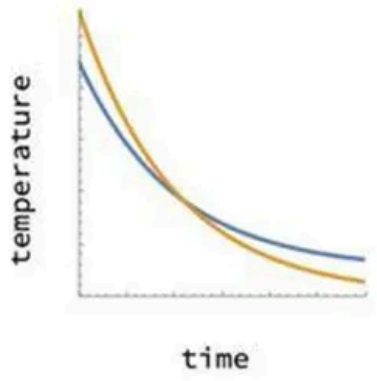
Q345. [Dec 2025] . 2.0 marks

General Aptitude > Basic Physics

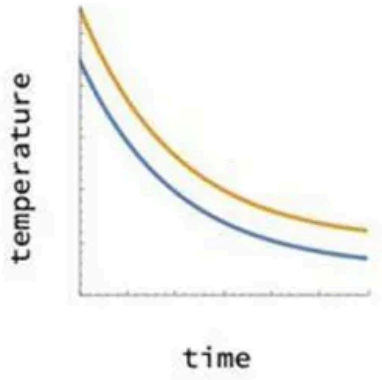
CSIR NET	2025 Dec	2M

Two identical metal bars are heated to different temperatures and allowed to cool in the same surroundings. Which one of the following figures correctly shows their cooling curves?

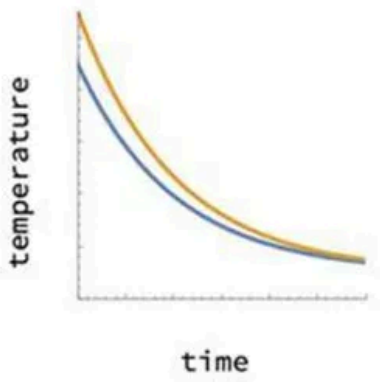
A



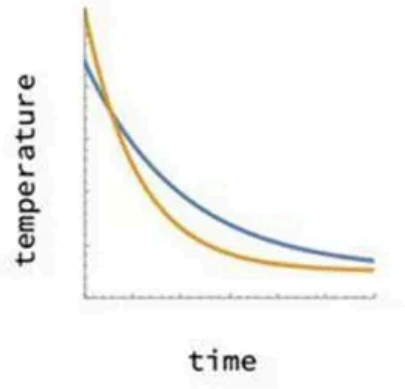
B



C



D



Q346. [Dec 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 Dec	2M

How many 5 -digit numbers can be formed from the digits 0,2,3,4,6,7 and 9 , using each at most once, which are divisible by 5 ?

1. 120
2. 240
3. 360
4. 720

Q347. [Dec 2025] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2025 Dec	2M

In a community, some artists are teachers, no teacher is a painter, all painters are artists, and all teachers are professionals. Then it can be definitely asserted that

1. no painter is a professional
2. all artists are professionals
3. no professionals are teachers
4. some artists are professionals

Q348. [Dec 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 Dec	2M

In an exam, questions of three difficulty levels hard, medium, and easy fetch respectively 7,3 , and 2 marks if correct and 0 if incorrect. Three students got 30 marks each but in three different ways, though the total number of questions correctly answered by each student was the same. Then what could be the total number of questions correctly answered by each of these students?

1. 12
2. 10
3. 9
4. 6

Q349. [Dec 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 Dec	2M

The value of

$$1+\left(\frac{1}{2^1}+\frac{1}{3}\right)+\left(\frac{1}{2^2}+\frac{1}{5}+\frac{1}{6}+\frac{1}{7}\right)+\cdots+\left(\frac{1}{2^9}+\cdots+\frac{1}{1023}\right)$$

lies between

1. 2 and 10
2. 11 and 20
3. 21 and 30
4. 31 and 40

Q350. [Dec 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 Dec	2M

The geometric mean of 100 observations is 25 . If each observation is multiplied by 4 , what will be the new geometric mean?

1. 100
2. 50
3. 25
4. $(25\times 4)^{1/2}$

Q351. [Dec 2025] . 2.0 marks

General Aptitude > General Knowledge

CSIR NET	2025 Dec	2M

Which among the following cities can be said most appropriately to bear the same relation to Tamil Nadu that Pune bears to Maharashtra; Surat to Gujarat and Asansol to West Bengal?

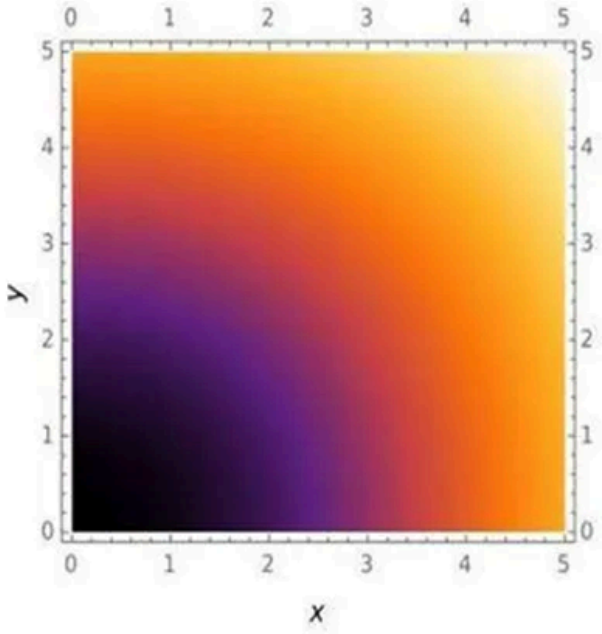
1. Tirupati
2. Mysore
3. Chennai
4. Coimbatore

Q352. [Dec 2025] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2025 Dec	2M

The following plot shows temperature as a function of x and y. Along which path is the temperature change minimum?



1. $x = \text{constant}$ or $y = \text{constant}$
2. $\frac{y}{x^2} = \text{constant}$
3. $y^2 + x^2 = \text{constant}$
4. $yx = \text{constant}$

Q353. [Dec 2025] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2025 Dec	2M

The minimum height of a plane vertical mirror that will allow a 6-feet tall person to see himself fully in it

1. depends on the distance between the person and the mirror
2. is 3 feet
3. is 4.5 feet
4. is 6 feet

Q354. [Dec 2025] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2025 Dec	2M

Three periodic events repeat every 24 seconds, 54 seconds, and 56 seconds. If they coincide at 10:20:00, when will they next coincide?

1. 10:35:12
2. 10:45:20
3. 10:45:12
4. 10: 35: 20

Q355. [Dec 2025] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2025 Dec	2M

Five students graduated from a college, not all in the same year, after each has studied for four years. If batchmates Jiten and Anwar were between Ramesh and Prakash but senior to Sam while Ramesh had left the college before Jiten took admission, then it is certain that

1. Anwar was the most senior
2. Ramesh was the most senior
3. Sam was the most junior
4. Prakash was the most junior

Q356. [Dec 2025] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2025 Dec	2M

What is the minimum number of pourings required to transfer exactly 6 L of water from a 12 L fully filled container to an 8 L empty container when a 5 L empty container is also available to use?

1. 4
2. 5
3. 6
4. 7

Q357. [Dec 2025] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2025 Dec	2M

Alloy A is formed by mixing iron (Fe) and nickel (Ni) in the ratio $3:4$, while alloy B is formed by mixing Fe and Ni in the ratio $9:5$. If equal quantities of alloys A and B are melted together to form a new alloy C , what will be the ratio of Fe to Ni in the alloy C ?

1. $4:3$
2. $5:3$
3. $15:13$
4. $13:9$

Q358. [Dec 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 Dec	2M

In a class, 40% and 20% students passed in Mathematics and Physics, respectively, and 10% students passed in both subjects. What is the probability of a randomly selected student to have passed in Physics if the student already passed in Mathematics?

1. $1/2$
2. $1/20$
3. $1/4$
4. $2/25$

Q359. [Dec 2025] . 2.0 marks

General Aptitude > General Knowledge

CSIR NET	2025 Dec	2M

A recent survey suggests that the total fertility rate in a country has fallen below 2.1, the population replacement ratio. This necessarily implies that the

1. infant mortality rate has increased reducing the net fertility ratio.
2. total population will decline.
3. population of young people is going to increase with a faster rate in the long run if the same status continues.
4. proportion of elderly people is going to decrease in the long run if the same status continues.

Q360. [Dec 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 Dec	2M

Some, but not all, faces of a six-faced cubical fair die are painted red (R) and the remaining green (G); and the die is thrown until red faces come up on top 4 times. Consider the following sequences of colors listed left to right as they appear on the top.

A: GRRRR

B: GRGRRR

Which one of the following is true?

1. A is more probable than B
2. B is more probable than A
3. Both have the same probability
4. Whether A or B is more probable depends upon how many faces are painted green

Q361. [June 2025] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2025 June	2M

Consider the following statements:

Statement I: All Booklets are Manuals.

Statement II: All Manuals are Catalogues.

If Statements I and II are True, which one of the following conclusions can be conclusively drawn?

1. All Manuals are Booklets.
2. All Catalogues are Booklets.
3. All Booklets are Catalogues.
4. All Catalogues are Manuals.

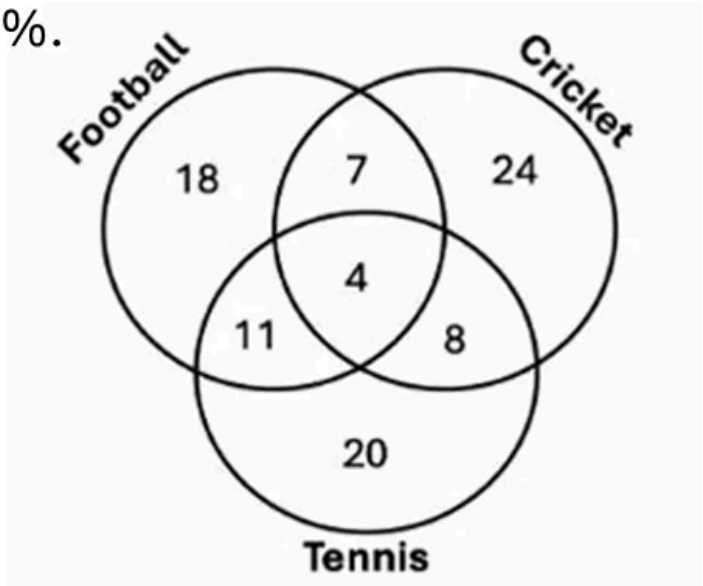
Q362. [June 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 June	2M

The given Venn diagram shows numbers of players playing one or more than one sport.

The percentage of players who play exactly two sports is closest to ___ %.



1. 5
2. 14
3. 28
4. 32

Q363. [June 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 June	2M

The value of a company is measured as the total value of its shares owned by different investors. Rakesh owns $2/15$ of the shares of a company. He sells $1/3$ of his shares for Rs. 75,000/-. What is the total value of the company at that time?

1. Rs. 15,75,800
2. Rs. 16,87,500
3. Rs. 17,75,800
4. Rs. 18,27,500

Q364. [June 2025] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2025 June	2M

A car has wheels of diameter 36 cm . If it runs at a speed of 60 km/h, then the rotation per minute (RPM) will be closest to ___ .

1. 884
2. 898
3. 906
4. 986

Q365. [June 2025] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2025 June	2M

A cylindrical container of radius 20 cm was filled with water up to 25 cm height. A solid spherical ball of radius 7 cm was then immersed in the water. What would be the approximate increase in water level in the container after the ball was fully immersed?

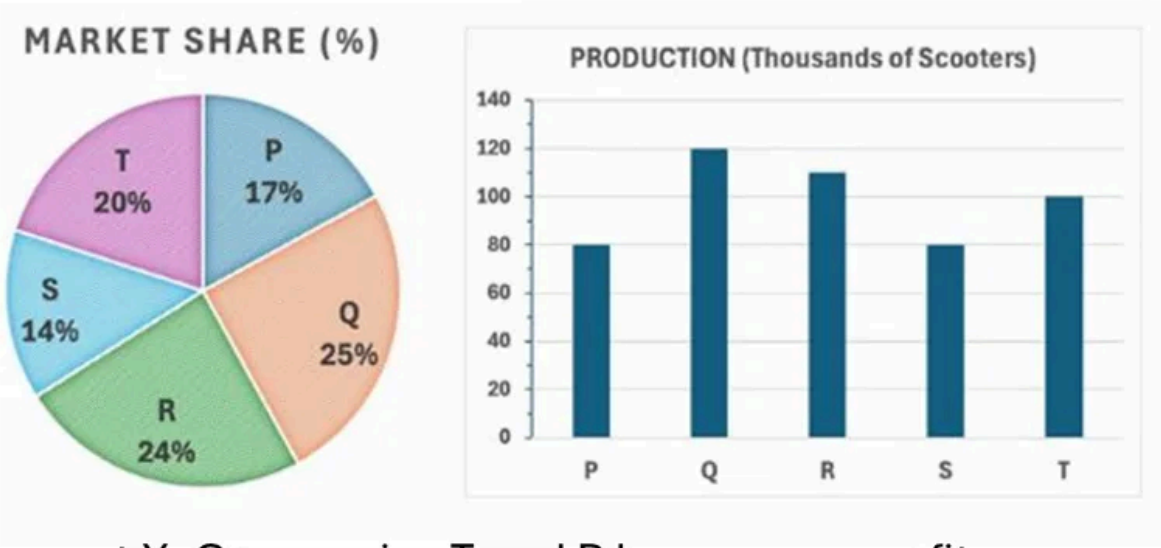
1. 1.14 cm
2. 2.28 cm
3. 5.50 cm
4. 7.00 cm

Q366. [June 2025] . 2.0 marks

General Aptitude > Data Analysis

CSIR NET	2025 June	2M

The market share (%) and annual production of scooters from five automobile companies P, Q, R, S, and T are shown in graphs. If the profit of a company is directly proportional to the ratio of market share to production, then which of the following statements is/are CORRECT?



Statement X: Companies T and P have same profit

Statement Y: Company R has the maximum profit

Statement Z: Company S has the minimum profit

1. X and Y
2. X and Z
3. Y and Z
4. Only Z

Q367. [June 2025] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2025 June	2M

Rahul and his father started jogging on a circular track of radius 'r' ($r > 2$). Rahul completed one round and stopped. His father got tired half way into the first round and returned to his starting point along a straight line. What is the ratio of the distances covered by Rahul and his father?

1. $\pi r/(\pi + 2)$
2. $2\pi/(\pi + 2)$
3. 1
4. 2

Q368. [June 2025] . 2.0 marks

General Aptitude > Basic Physics

CSIR NET	2025 June	2M

Kavita starts from her house and walks 200 m northward, then turns 45° right and walks 70 m . After that, she turns 90° right and walks 70 m . Which of the following is the closest value of the shortest distance between Kavita's current location and her house?

1. 296 m
2. 240 m
3. 200 m
4. 223 m

Q369. [June 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 June	2M

The initial monthly salaries of employees John, Riya, and Sunil were in the proportion 4:3:5. After an increase of Rs 10000 monthly to all, the new proportion becomes 6: 5: 7. What was the initial salary of Sunil?

1. Rs 20000
2. Rs 25000
3. Rs 30000
4. Rs 35000

Q370. [June 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 June	2M

Numbers of Rose, Lotus, and Marigold plants in a garden are in the proportion 8:5:7. Later, 75%, 40% and 50% more plants of their respective categories were added. What will be the new proportion of plants, in the same order?

1. 5: 3: 4
2. 4:2:3
3. 5:4:3
4. 7:4:5

Q371. [June 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 June	2M

What will be the digit at the unit's place of $1^3 + 2^3 + 3^3 + 4^3 + 5^3 + 6^3 + 7^3 + 8^3 + 9^3$?

1. 0
2. 5
3. 7
4. 9

Q372. [June 2025] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2025 June	2M

Suresh asked Ramesh to identify the person in a photo that the latter is holding. Ramesh responds, "I have no brothers or sisters. However, that man's father is my father's son." Who is the person in the photo?

1. Suresh
2. Ramesh
3. Ramesh's son
4. Ramesh's cousin

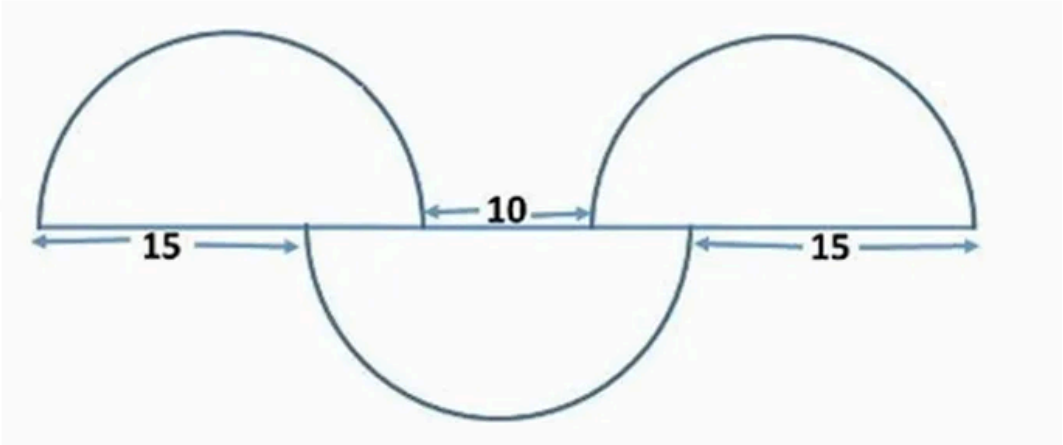
Q373. [June 2025] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2025 June	2M

Three identical semi-circles are arranged as shown. What is the diameter of the semi-circles?

1. 5π
2. 20
3. $15\pi/2$
4. 25



Q374. [June 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 June	2M

A number is mistakenly divided by 2 instead of being multiplied by 2 . What is the change in the result caused by this mistake?

1. 25%
2. 50%
3. 75%
4. 100%

Q375. [June 2025] . 2.0 marks

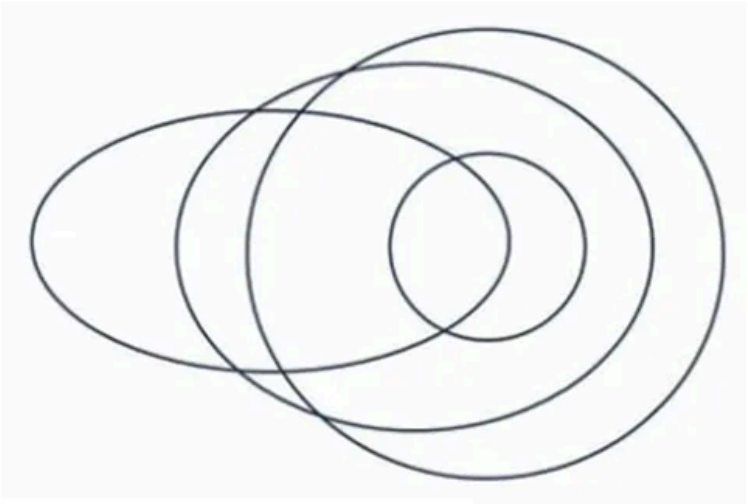
General Aptitude > Reasoning

CSIR NET	2025 June	2M

The following diagram represents the relationship between four categories.

The categories could be

1. Rivers, water bodies, oceans, sources of evaporation
2. Parliamentarians, celebrities, elected persons, professional politicians
3. Monkeys, four-legged animals, pet animals, land animals
4. Furniture, chairs, seats, wooden objects



Q376. [June 2025] . 2.0 marks

General Aptitude > Reasoning

CSIR NET	2025 June	2M

In a code, the word DELTOID is written as 3152893 . Then LOTION could be written as

1. 582986
2. 582981
3. 198396
4. 198392

Q377. [June 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 June	2M

Sum of the digits of a two-digit number 'ab' is subtracted from the number and the result is divided by 9 . Then the result of this will be

1. always a
2. always b
3. neither a nor b
4. either a or b depending on a+b

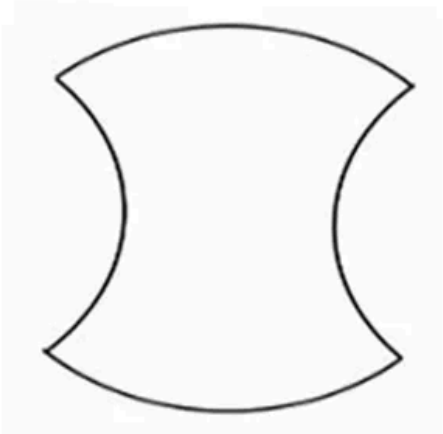
Q378. [June 2025] . 2.0 marks

General Aptitude > Geometry

CSIR NET	2025 June	2M

A circle of radius 1 unit is divided into four quarters and rejoined as shown below.

What is the area of this shape?



1. π
2. 1
3. 2
4. 4

Q379. [June 2025] . 2.0 marks

General Aptitude > Mathematical Analysis

CSIR NET	2025 June	2M

A stock market trader has lost two thirds of her investment on a day. Next day she recovered one third of the previous day's loss. What fraction of her initial investment is she left with?

1. $\frac{1}{3}$
2. $\frac{2}{3}$
3. $\frac{2}{9}$
4. $\frac{5}{9}$

Q380. [June 2025] . 2.0 marks

General Aptitude > Reasoning

[image unavailable]

Answer Key

380 questions . Subject and topic for quick revision

Q. No	Subject	Topic	Answer
Q1	General Aptitude	Reasoning	**4**
Q2	General Aptitude	Reasoning	**2**
Q3	General Aptitude	Mathematical Analysis	**2**
Q4	General Aptitude	Geometry	**2**
Q5	General Aptitude	Basic Physics	**1**
Q6	General Aptitude	Basic Physics	**2**
Q7	General Aptitude	Reasoning	**3**
Q8	General Aptitude	Basic Physics	**3**
Q9	General Aptitude	Geometry	**4**
Q10	General Aptitude	Mathematical Analysis	**2**
Q11	General Aptitude	Geometry	**1**
Q12	General Aptitude	Reasoning	**3**
Q13	General Aptitude	Reasoning	**3**
Q14	General Aptitude	Basic Physics	**2**
Q15	General Aptitude	Mathematical Analysis	**3**
Q16	General Aptitude	Basic Physics	**1**
Q17	General Aptitude	Basic Physics	**2**
Q18	General Aptitude	Basic Physics	**4**
Q19	General Aptitude	Geometry	**4**
Q20	General Aptitude	Basic Physics	**4**
Q21	General Aptitude	Reasoning	**1**
Q22	General Aptitude	Mathematical Analysis	**3**
Q23	General Aptitude	Geometry	**3**
Q24	General Aptitude	Mathematical Analysis	**3**
Q25	General Aptitude	Geometry	**1**
Q26	General Aptitude	Geometry	**4**
Q27	General Aptitude	Geometry	**3**
Q28	General Aptitude	Geometry	**3**
Q29	General Aptitude	Reasoning	**2**
Q30	General Aptitude	Basic Physics	**1**
Q31	General Aptitude	Mathematical Analysis	**1**
Q32	General Aptitude	Basic Physics	**1**
Q33	General Aptitude	Mathematical Analysis	**1**
Q34	General Aptitude	Basic Physics	**1**
Q35	General Aptitude	Geometry	**1**
Q36	General Aptitude	Basic Physics	**3**
Q37	General Aptitude	Reasoning	**4**
Q38	General Aptitude	Geometry	**2**
Q39	General Aptitude	Geometry	**2**
Q40	General Aptitude	Basic Physics	**2**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q41	General Aptitude	Mathematical Analysis	**4**
Q42	General Aptitude	Mathematical Analysis	**3**
Q43	General Aptitude	Reasoning	**1**
Q44	General Aptitude	Basic Physics	**4**
Q45	General Aptitude	Basic Physics	**1**
Q46	General Aptitude	Basic Physics	**1**
Q47	General Aptitude	Data Analysis	**2**
Q48	General Aptitude	Basic Physics	**2**
Q49	General Aptitude	Basic Physics	**1**
Q50	General Aptitude	Basic Physics	**3**
Q51	General Aptitude	Geometry	**4**
Q52	General Aptitude	Geometry	**3**
Q53	General Aptitude	Geometry	**3**
Q54	General Aptitude	Geometry	**2**
Q55	General Aptitude	Basic Physics	**2**
Q56	General Aptitude	Mathematical Analysis	**1**
Q57	General Aptitude	Mathematical Analysis	**2**
Q58	General Aptitude	Basic Physics	**1**
Q59	General Aptitude	Basic Physics	**1**
Q60	General Aptitude	Basic Physics	**4**
Q61	General Aptitude	Geometry	**1**
Q62	General Aptitude	Basic Physics	**2**
Q63	General Aptitude	Reasoning	**2**
Q64	General Aptitude	Reasoning	**1 or 2**
Q65	General Aptitude	Mathematical Analysis	**4**
Q66	General Aptitude	Reasoning	**2**
Q67	General Aptitude	Mathematical Analysis	**4**
Q68	General Aptitude	Geometry	**3**
Q69	General Aptitude	Data Analysis	**2**
Q70	General Aptitude	Reasoning	**2**
Q71	General Aptitude	Reasoning	**3**
Q72	General Aptitude	Mathematical Analysis	**3**
Q73	General Aptitude	Reasoning	**3**
Q74	General Aptitude	Reasoning	**4**
Q75	General Aptitude	Reasoning	**3**
Q76	General Aptitude	Basic Physics	**2**
Q77	General Aptitude	Mathematical Analysis	**4**
Q78	General Aptitude	Geometry	**2**
Q79	General Aptitude	Basic Physics	**4**
Q80	General Aptitude	Reasoning	**2**
Q81	General Aptitude	Mathematical Analysis	**1**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q82	General Aptitude	Reasoning	**4**
Q83	General Aptitude	Geometry	**2**
Q84	General Aptitude	Basic Physics	**2**
Q85	General Aptitude	Basic Physics	**2**
Q86	General Aptitude	Basic Physics	**2**
Q87	General Aptitude	Basic Physics	**4**
Q88	General Aptitude	Data Analysis	**2**
Q89	General Aptitude	Reasoning	**2**
Q90	General Aptitude	Mathematical Analysis	**2**
Q91	General Aptitude	Reasoning	**3**
Q92	General Aptitude	Mathematical Analysis	**2**
Q93	General Aptitude	Basic Physics	**2**
Q94	General Aptitude	Mathematical Analysis	**2**
Q95	General Aptitude	Mathematical Analysis	**2**
Q96	General Aptitude	Mathematical Analysis	**1**
Q97	General Aptitude	Basic Physics	**1**
Q98	General Aptitude	Mathematical Analysis	**2**
Q99	General Aptitude	Geometry	**1**
Q100	General Aptitude	Geometry	**1**
Q101	General Aptitude	Basic Physics	**1**
Q102	General Aptitude	Reasoning	**3**
Q103	General Aptitude	Mathematical Analysis	**3**
Q104	General Aptitude	Basic Physics	**2**
Q105	General Aptitude	Mathematical Analysis	**2**
Q106	General Aptitude	Mathematical Analysis	**3**
Q107	General Aptitude	Data Analysis	**2**
Q108	General Aptitude	Reasoning	**2**
Q109	General Aptitude	Mathematical Analysis	**1**
Q110	General Aptitude	Reasoning	**1 or 4**
Q111	General Aptitude	Reasoning	**3**
Q112	General Aptitude	Geometry	**4**
Q113	General Aptitude	Mathematical Analysis	**1**
Q114	General Aptitude	Geometry	**1**
Q115	General Aptitude	Geometry	**1**
Q116	General Aptitude	Mathematical Analysis	**2**
Q117	General Aptitude	Basic Physics	**3**
Q118	General Aptitude	Reasoning	**1**
Q119	General Aptitude	Reasoning	**3**
Q120	General Aptitude	Basic Physics	**3**
Q121	General Aptitude	Geometry	**1**
Q122	General Aptitude	Mathematical Analysis	**1**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q123	General Aptitude	Mathematical Analysis	**4**
Q124	General Aptitude	Mathematical Analysis	**2**
Q125	General Aptitude	Basic Physics	**3**
Q126	General Aptitude	Mathematical Analysis	**2**
Q127	General Aptitude	Mathematical Analysis	**1**
Q128	General Aptitude	Basic Physics	**2**
Q129	General Aptitude	Mathematical Analysis	**3**
Q130	General Aptitude	Basic Physics	**4**
Q131	General Aptitude	Reasoning	**2**
Q132	General Aptitude	Basic Physics	**4**
Q133	General Aptitude	Reasoning	**3**
Q134	General Aptitude	Data Analysis	**1**
Q135	General Aptitude	Basic Physics	**4**
Q136	General Aptitude	Reasoning	**3**
Q137	General Aptitude	Geometry	**3**
Q138	General Aptitude	Geometry	**3**
Q139	General Aptitude	Mathematical Analysis	**2**
Q140	General Aptitude	Basic Physics	**4**
Q141	General Aptitude	Basic Physics	**4**
Q142	General Aptitude	Reasoning	**4**
Q143	General Aptitude	Mathematical Analysis	**3**
Q144	General Aptitude	Basic Physics	**4**
Q145	General Aptitude	Mathematical Analysis	**1**
Q146	General Aptitude	Mathematical Analysis	**3**
Q147	General Aptitude	General Knowledge	**None**
Q148	General Aptitude	Reasoning	**3**
Q149	General Aptitude	Mathematical Analysis	**1**
Q150	General Aptitude	Reasoning	**1**
Q151	General Aptitude	Data Analysis	**4**
Q152	General Aptitude	Mathematical Analysis	**4**
Q153	General Aptitude	Mathematical Analysis	**3**
Q154	General Aptitude	Mathematical Analysis	**4**
Q155	General Aptitude	Reasoning	**4**
Q156	General Aptitude	Geometry	**2**
Q157	General Aptitude	Reasoning	**3**
Q158	General Aptitude	Basic Physics	**3**
Q159	General Aptitude	Mathematical Analysis	**4**
Q160	General Aptitude	Geometry	**1 or 4**
Q161	General Aptitude	Mathematical Analysis	**2**
Q162	General Aptitude	Mathematical Analysis	**4**
Q163	General Aptitude	Mathematical Analysis	**2**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q164	General Aptitude	Mathematical Analysis	**2**
Q165	General Aptitude	Mathematical Analysis	**2**
Q166	General Aptitude	Mathematical Analysis	**3**
Q167	General Aptitude	Basic Physics	**4**
Q168	General Aptitude	Mathematical Analysis	**4**
Q169	General Aptitude	Data Analysis	**3**
Q170	General Aptitude	Reasoning	**3**
Q171	General Aptitude	Mathematical Analysis	**3**
Q172	General Aptitude	Mathematical Analysis	**2**
Q173	General Aptitude	Reasoning	**4**
Q174	General Aptitude	Mathematical Analysis	**4**
Q175	General Aptitude	Basic Physics	**1**
Q176	General Aptitude	Geometry	**2**
Q177	General Aptitude	Geometry	**3**
Q178	General Aptitude	Mathematical Analysis	**4**
Q179	General Aptitude	Basic Physics	**2**
Q180	General Aptitude	Basic Physics	**3**
Q181	General Aptitude	Basic Physics	**2**
Q182	General Aptitude	Mathematical Analysis	**3**
Q183	General Aptitude	Basic Physics	**2**
Q184	General Aptitude	Data Analysis	**4**
Q185	General Aptitude	Mathematical Analysis	**3**
Q186	General Aptitude	Reasoning	**1**
Q187	General Aptitude	Reasoning	**3**
Q188	General Aptitude	Reasoning	**3**
Q189	General Aptitude	Mathematical Analysis	**4**
Q190	General Aptitude	Reasoning	**4**
Q191	General Aptitude	Reasoning	**4**
Q192	General Aptitude	Reasoning	**4**
Q193	General Aptitude	Geometry	**3**
Q194	General Aptitude	Mathematical Analysis	**2**
Q195	General Aptitude	Basic Physics	**3**
Q196	General Aptitude	Mathematical Analysis	**1**
Q197	General Aptitude	Geometry	**1**
Q198	General Aptitude	Mathematical Analysis	**3**
Q199	General Aptitude	Basic Physics	**4**
Q200	General Aptitude	Basic Physics	**3**
Q201	General Aptitude	Reasoning	**1**
Q202	General Aptitude	Mathematical Analysis	**3**
Q203	General Aptitude	Geometry	**1**
Q204	General Aptitude	Mathematical Analysis	**4**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q205	General Aptitude	Reasoning	**2**
Q206	General Aptitude	Data Analysis	**1**
Q207	General Aptitude	Mathematical Analysis	**2**
Q208	General Aptitude	Mathematical Analysis	**3**
Q209	General Aptitude	Basic Physics	**2**
Q210	General Aptitude	Basic Physics	**4**
Q211	General Aptitude	Geometry	**2**
Q212	General Aptitude	Geometry	**4**
Q213	General Aptitude	Basic Physics	**4**
Q214	General Aptitude	Reasoning	**4**
Q215	General Aptitude	Basic Physics	**3**
Q216	General Aptitude	Reasoning	**1**
Q217	General Aptitude	Mathematical Analysis	**1**
Q218	General Aptitude	Mathematical Analysis	**1**
Q219	General Aptitude	Geometry	**3**
Q220	General Aptitude	Basic Physics	**1**
Q221	General Aptitude	Basic Physics	**2**
Q222	General Aptitude	Basic Physics	**2**
Q223	General Aptitude	Mathematical Analysis	**1**
Q224	General Aptitude	Mathematical Analysis	**3**
Q225	General Aptitude	Mathematical Analysis	**2**
Q226	General Aptitude	Mathematical Analysis	**1**
Q227	General Aptitude	Basic Physics	**4**
Q228	General Aptitude	Mathematical Analysis	**4**
Q229	General Aptitude	Mathematical Analysis	**1**
Q230	General Aptitude	Mathematical Analysis	**4**
Q231	General Aptitude	Reasoning	**2**
Q232	General Aptitude	Basic Physics	**1**
Q233	General Aptitude	Basic Physics	**4**
Q234	General Aptitude	Mathematical Analysis	**3**
Q235	General Aptitude	Reasoning	**1**
Q236	General Aptitude	Reasoning	**3**
Q237	General Aptitude	Data Analysis	**1**
Q238	General Aptitude	Reasoning	**2**
Q239	General Aptitude	Geometry	**4**
Q240	General Aptitude	Reasoning	**4**
Q241	General Aptitude	Reasoning	**3**
Q242	General Aptitude	Mathematical Analysis	**2**
Q243	General Aptitude	Reasoning	**4**
Q244	General Aptitude	Basic Physics	**3**
Q245	General Aptitude	Mathematical Analysis	**3**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q246	General Aptitude	Basic Physics	**1**
Q247	General Aptitude	Reasoning	**2**
Q248	General Aptitude	Reasoning	**1**
Q249	General Aptitude	Mathematical Analysis	**4**
Q250	General Aptitude	Mathematical Analysis	**1**
Q251	General Aptitude	Mathematical Analysis	**4**
Q252	General Aptitude	Basic Physics	**1**
Q253	General Aptitude	Mathematical Analysis	**1**
Q254	General Aptitude	Reasoning	**1**
Q255	General Aptitude	Geometry	**1**
Q256	General Aptitude	Reasoning	**1**
Q257	General Aptitude	Mathematical Analysis	**1**
Q258	General Aptitude	Mathematical Analysis	**1**
Q259	General Aptitude	Geometry	**2**
Q260	General Aptitude	Geometry	**3**
Q261	General Aptitude	Mathematical Analysis	**4**
Q262	General Aptitude	Reasoning	**1**
Q263	General Aptitude	Data Analysis	**4**
Q264	General Aptitude	Reasoning	**3**
Q265	General Aptitude	Reasoning	**3**
Q266	General Aptitude	Reasoning	**3**
Q267	General Aptitude	Mathematical Analysis	**4**
Q268	General Aptitude	Basic Physics	**4**
Q269	General Aptitude	Data Analysis	**1**
Q270	General Aptitude	Basic Physics	**3**
Q271	General Aptitude	Mathematical Analysis	**3**
Q272	General Aptitude	Mathematical Analysis	**2**
Q273	General Aptitude	Mathematical Analysis	**3**
Q274	General Aptitude	Basic Physics	**1**
Q275	General Aptitude	Reasoning	**2**
Q276	General Aptitude	Data Analysis	**1**
Q277	General Aptitude	Data Analysis	**1**
Q278	General Aptitude	Mathematical Analysis	**1**
Q279	General Aptitude	Mathematical Analysis	**2**
Q280	General Aptitude	Mathematical Analysis	**3**
Q281	General Aptitude	Mathematical Analysis	**2**
Q282	General Aptitude	Mathematical Analysis	**1**
Q283	General Aptitude	Basic Physics	**4**
Q284	General Aptitude	Mathematical Analysis	**3**
Q285	General Aptitude	Basic Physics	**4**
Q286	General Aptitude	Mathematical Analysis	**4**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q287	General Aptitude	Geometry	**1**
Q288	General Aptitude	Reasoning	**1**
Q289	General Aptitude	Mathematical Analysis	**1**
Q290	General Aptitude	Data Analysis	**1**
Q291	General Aptitude	Mathematical Analysis	**4**
Q292	General Aptitude	Mathematical Analysis	**2**
Q293	General Aptitude	Reasoning	**1**
Q294	General Aptitude	Mathematical Analysis	**3**
Q295	General Aptitude	Geometry	**2**
Q296	General Aptitude	Geometry	**2**
Q297	General Aptitude	Basic Physics	**2**
Q298	General Aptitude	Basic Physics	**4**
Q299	General Aptitude	Mathematical Analysis	**2**
Q300	General Aptitude	Reasoning	**2**
Q301	General Aptitude	Geometry	**2**
Q302	General Aptitude	Mathematical Analysis	**2**
Q303	General Aptitude	Mathematical Analysis	**4**
Q304	General Aptitude	Reasoning	**2**
Q305	General Aptitude	Mathematical Analysis	**4**
Q306	General Aptitude	Data Analysis	**2**
Q307	General Aptitude	Basic Physics	**2**
Q308	General Aptitude	Data Analysis	**4**
Q309	General Aptitude	Mathematical Analysis	**3**
Q310	General Aptitude	Reasoning	**2**
Q311	General Aptitude	Mathematical Analysis	**1**
Q312	General Aptitude	Reasoning	**1**
Q313	General Aptitude	Geometry	**1**
Q314	General Aptitude	Reasoning	**4**
Q315	General Aptitude	Geometry	**2**
Q316	General Aptitude	Mathematical Analysis	**4**
Q317	General Aptitude	Geometry	**4**
Q318	General Aptitude	Basic Physics	**4**
Q319	General Aptitude	Basic Physics	**4**
Q320	General Aptitude	Reasoning	**2**
Q321	General Aptitude	Mathematical Analysis	**4**
Q322	General Aptitude	Mathematical Analysis	**1**
Q323	General Aptitude	Geometry	**2**
Q324	General Aptitude	Geometry	**4**
Q325	General Aptitude	Mathematical Analysis	**1**
Q326	General Aptitude	Reasoning	**1**
Q327	General Aptitude	Data Analysis	**1**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q328	General Aptitude	Mathematical Analysis	**3**
Q329	General Aptitude	Mathematical Analysis	**1**
Q330	General Aptitude	Mathematical Analysis	**3**
Q331	General Aptitude	Data Analysis	**2**
Q332	General Aptitude	Geometry	**3**
Q333	General Aptitude	Mathematical Analysis	**4**
Q334	General Aptitude	Basic Physics	**1**
Q335	General Aptitude	Data Analysis	**3**
Q336	General Aptitude	Data Analysis	**3**
Q337	General Aptitude	Geometry	**3**
Q338	General Aptitude	Basic Physics	**3**
Q339	General Aptitude	Basic Physics	**4**
Q340	General Aptitude	Geometry	**4**
Q341	General Aptitude	Mathematical Analysis	**3**
Q342	General Aptitude	Data Analysis	**1**
Q343	General Aptitude	Data Analysis	**3**
Q344	General Aptitude	Mathematical Analysis	**2**
Q345	General Aptitude	Basic Physics	**3**
Q346	General Aptitude	Mathematical Analysis	**3**
Q347	General Aptitude	Reasoning	**4**
Q348	General Aptitude	Mathematical Analysis	**2**
Q349	General Aptitude	Mathematical Analysis	**1**
Q350	General Aptitude	Mathematical Analysis	**1**
Q351	General Aptitude	General Knowledge	**4**
Q352	General Aptitude	Data Analysis	**3**
Q353	General Aptitude	Basic Physics	**2**
Q354	General Aptitude	Reasoning	**3**
Q355	General Aptitude	Reasoning	**2**
Q356	General Aptitude	Reasoning	**3**
Q357	General Aptitude	Basic Physics	**3**
Q358	General Aptitude	Mathematical Analysis	**3**
Q359	General Aptitude	General Knowledge	**2**
Q360	General Aptitude	Mathematical Analysis	**1**
Q361	General Aptitude	Reasoning	**3**
Q362	General Aptitude	Mathematical Analysis	**3**
Q363	General Aptitude	Mathematical Analysis	**2**
Q364	General Aptitude	Basic Physics	**1**
Q365	General Aptitude	Basic Physics	**1**
Q366	General Aptitude	Data Analysis	**3**
Q367	General Aptitude	Basic Physics	**2**
Q368	General Aptitude	Basic Physics	**4**

Answer Key (cont.)

Q. No	Subject	Topic	Answer
Q369	General Aptitude	Mathematical Analysis	**2**
Q370	General Aptitude	Mathematical Analysis	**2**
Q371	General Aptitude	Mathematical Analysis	**2**
Q372	General Aptitude	Reasoning	**3**
Q373	General Aptitude	Geometry	**2**
Q374	General Aptitude	Mathematical Analysis	**3**
Q375	General Aptitude	Reasoning	**4**
Q376	General Aptitude	Reasoning	**1**
Q377	General Aptitude	Mathematical Analysis	**1**
Q378	General Aptitude	Geometry	**3**
Q379	General Aptitude	Mathematical Analysis	**4**
Q380	General Aptitude	Reasoning	**2**

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