
SSC Scientific Assistant (IMD) 24 Nov 2017 Shift-2(Physics)

QID : 601 - Select the related word from the given alternatives.

Rain : Water :: Hail : ?

Options:

- 1) Vapour
- 2) Storm
- 3) Cold
- 4) Ice

Correct Answer: Ice

QID : 602 - Select the related letters from the given alternatives.

FHJ : CEG :: LNP : ?

Options:

- 1) IKM
- 2) HJL
- 3) NPR
- 4) RTV

Correct Answer: IKM

QID : 603 - Select the related number from the given alternatives.

$1/4$: $-1/2$:: $-1/10$: ?

Options:

- 1) $-1/5$
- 2) $1/20$
- 3) $1/5$
- 4) $-1/20$

Correct Answer: $1/5$

QID : 604 - Select the odd word from the given alternatives.

Options:

- 1) Professor
- 2) Postgraduate
- 3) Graduate

4) Master

Correct Answer: Professor

QID : 605 - Select the odd letters from the given alternatives.

Options:

1) BFJ

2) KOS

3) TXB

4) GIK

Correct Answer: GIK

QID : 606 - Select the odd number from the given alternatives.

Options:

1) 144

2) 225

3) 157

4) 256

Correct Answer: 157

QID : 607 - A series is given, with one word missing. Choose the correct alternative from the given ones that will complete the series.

Parrot, Other, Eruption, Onset, Etcetera, ?

Options:

1) Suavely

2) Lagging

3) Holding

4) Ransom

Correct Answer: Ransom

QID : 608 - A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.?

AAAAAAB, BAAAAAB, BAAAAAB, BBAAAAB, BBAAABBB, ?

Options:

1) BBABBBB

2) BBAAABBB

3) BBBB BBBB

4) BBBAABBB

Correct Answer: BBBAABBB

QID : 609 - A series is given, with one number missing. Choose the correct alternative from the given ones that will complete the series.

1.4, 2.2, ? , 3.8, 4.6

Options:

1) 2.8

2) 3.2

3) 3

4) 3.4

Correct Answer: 3

QID : 610 - Parinaaz's birthday is on Saturday 29th April. On what day of the week will be Kiara's Birthday in the same year, if Kiara was born on 5th September?

Options:

1) Wednesday

2) Friday

3) Tuesday

4) Thursday

Correct Answer: Tuesday

QID : 611 - The weights of 4 boxes are 30, 90, 80 and 20 Kg. Which of the following cannot be the total weight, in kilograms, of any combination of these boxes and in a combination a box can be used only once?

Options:

1) 220

2) 200

3) 190

4) 210

Correct Answer: 210

QID : 612 - From the given words, select the word which cannot be formed using the letters of the given word.

COGENTLY

Options:

- 1) CLONE
- 2) GENTLY
- 3) CLUNG
- 4) CENT

Correct Answer: CLUNG

QID : 613 - If MESTIZO is coded as KCQRGXM, then how will YAK be coded as?

Options:

- 1) WYI
- 2) YKS
- 3) TYL
- 4) IFG

Correct Answer: WYI

QID : 614 - In a certain code language, '+' represents 'x', '-' represents '+', 'x' represents '÷' and '÷' represents '-'. What is the answer to the following question?

$$9 \times 3 \div 12 + 5 - 24 = ?$$

Options:

- 1) -33
- 2) 3
- 3) 39
- 4) 69

Correct Answer: -33

QID : 615 - If $17\$5 = 11$, $3\$21 = 12$, $2\$4 = 3$ then what is the value of $42\$6 = ?$

Options:

- 1) 24
- 2) 22
- 3) 57
- 4) 76

Correct Answer: 24

QID : 616 -

Select the missing number from the given responses

दिए गए विकल्पों में से लुप्त संख्या चुनिए।

| | | |
|---|---|---|
| 2 | 5 | 6 |
| 3 | 6 | 8 |
| 4 | 7 | 9 |
| 1 | ? | 5 |

Options:

- 1) 6
- 2) 4
- 3) 18
- 4) 10

Correct Answer: 4

QID : 617 - Two motorcyclists P and Q start from the same point. P rides 17 km West, then turns South and rides 11 km, then turns to his right and rides 10 km. Q rides 20 km South, then turns to his right and rides 27 km. Where is Q with respect to P now?

Options:

- 1) 9 km North
- 2) 31 km South
- 3) 31 km North
- 4) 9 km South

Correct Answer: 9 km South

QID : 618 - In the question two statements are given, followed by two conclusions, I and II. You have

to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement

No two-wheelers are motorcycles.

All motorcycles are bicycles.

Conclusion

Some two-wheelers are bicycles.

No motorcycles are two-wheelers.

Options:

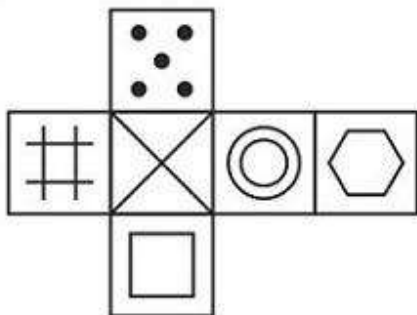
- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Both I and II follow
- 4) Neither I nor II follows

Correct Answer: Only conclusion II follows

QID : 619 -

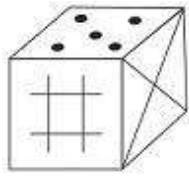
Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

निम्नलिखित उत्तर आकृति में से कौन सा घन दिए गए प्रश्न आकृति में से खुले घन से बनाया नहीं जा सकता?

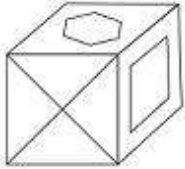


Options:

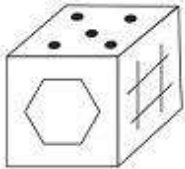
- 1)



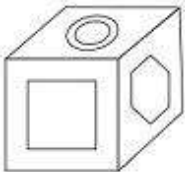
2)



3)



4)

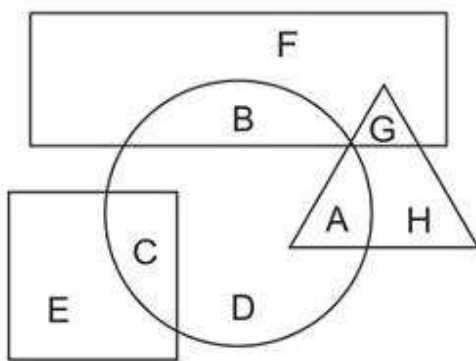


Correct Answer:

QID : 620 -

In the following figure, square represents Translators, triangle represents Exporters, circle represents Professors and rectangle represents Fathers. Which set of letters represents Translators and Exporters who are also Professors?

निम्नलिखित आकृति में, वर्ग अनुवादकों को दर्शाता है, त्रिभुज निर्यातकों को दर्शाता है, वृत्त प्रोफेसर्स को दर्शाता है और आयत पिताओं को दर्शाता है। अक्षरों का कौन सा समूह अनुवादकों और निर्यातकों को दर्शाता है जो प्रोफेसर भी हैं?



Options:

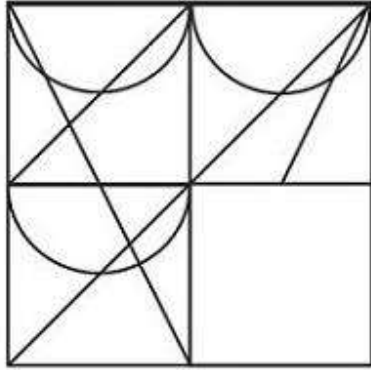
- 1) F,G,H
- 2) E,C,D
- 3) A,C
- 4) B,F

Correct Answer: A,C

QID : 621 -

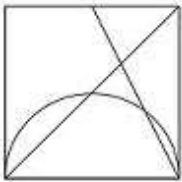
Which answer figure will complete the pattern in the question figure?

निम्नलिखित में से कौन-सी उत्तर आकृति प्रश्न आकृति के प्रतिरूप को पूरा करेगी?

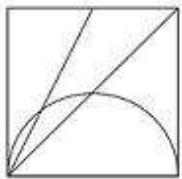


Options:

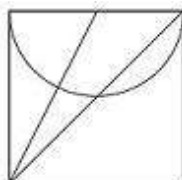
1)



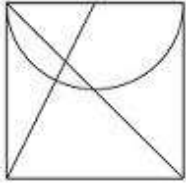
2)



3)



4)

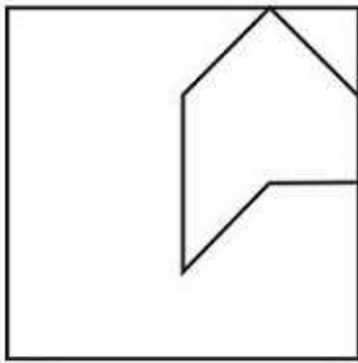


Correct Answer:

QID : 622 -

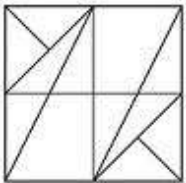
From the given answer figures, select the one in which the question figure is hidden/embedded.

दी गई उत्तर आकृतियों में से उस आकृति को चुनिए जिसमें प्रश्न आकृति निहित है।

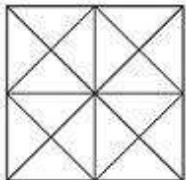


Options:

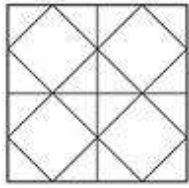
1)



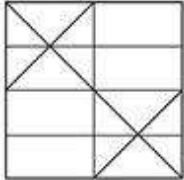
2)



3)



4)

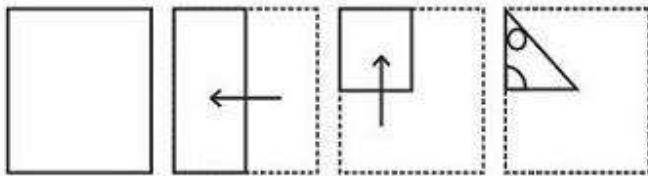


Correct Answer:

QID : 623 -

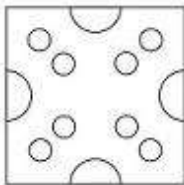
A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

प्रश्न आकृतियों में दिखाए अनुसार कागज को मोड़कर उसमें छेद करने तथा खोलने के बाद वह किस उत्तर आकृति जैसा दिखाई देगा?

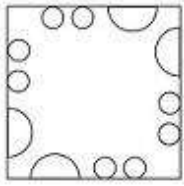


Options:

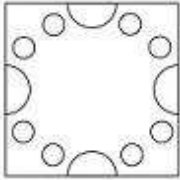
1)



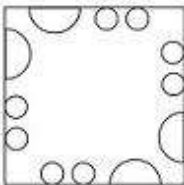
2)



3)



4)

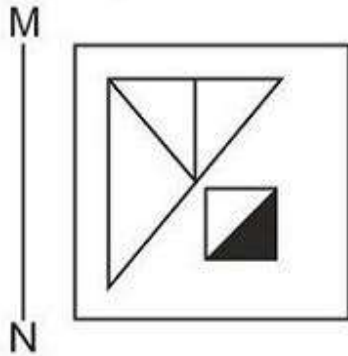


Correct Answer:

QID : 624 -

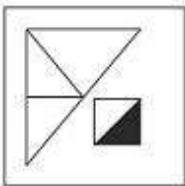
If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?

यदि एक दर्पण को MN रेखा पर रखा जाए तो दी गई उत्तर आकृतियों में से कौन-सी आकृति प्रश्न आकृति का सही प्रतिबिम्ब होगी?

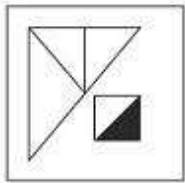


Options:

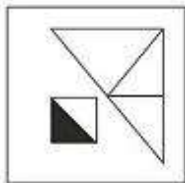
1)



2)



3)



4)



Correct Answer:

QID : 625 -

A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example 'K' can be represented by 20, 43 etc and 'Z' can be represented by 65, 69 etc. Similarly, you have to identify the set for the word 'TUBE'.

एक शब्द केवल एक संख्या-समूह द्वारा दर्शाया गया है, जैसा कि विकल्पों में से किसी एक में दिया गया है। विकल्पों में दिए गए संख्या-समूह अक्षरों के दो वर्गों द्वारा दर्शाए गए हैं, जैसा कि दिए गए दो आव्यूहों में है। आव्यूह-I के स्तम्भ और पंक्ति की संख्या 0 से 4 और आव्यूह-II की 5 से 9 है। इन आव्यूहों से एक अक्षर को पहले उसकी पंक्ति और बाद में स्तम्भ संख्या द्वारा दर्शाया जा सकता है। उदाहरण के लिए 'K' को 20, 43 आदि द्वारा दर्शाया जा सकता है तथा 'Z' को 65, 69 आदि द्वारा दर्शाया जा सकता है। इसी तरह से आपको प्रश्न में दिए शब्द 'TUBE' के लिए समूह को पहचानना है।

| Matrix I आव्यूह - I | | | | | |
|------------------------|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 |
| 0 | G | B | L | G | E |
| 1 | L | E | M | C | K |
| 2 | K | D | G | C | M |
| 3 | L | H | G | G | C |
| 4 | G | M | B | K | A |

| Matrix II आव्यूह - II | | | | | |
|--------------------------|---|---|---|---|---|
| | 5 | 6 | 7 | 8 | 9 |
| 5 | P | X | W | P | P |
| 6 | Z | N | P | N | Z |
| 7 | U | Q | W | U | Z |
| 8 | N | P | P | Q | X |
| 9 | U | S | T | Y | V |

Options:

- 1) 40,20,56,55
- 2) 32,00,56,89
- 3) 11,41,78,67
- 4) 97,75,01,11

Correct Answer: 97,75,01,11

QID : 626 - What least number must be added to 728, so that the sum is completely divisible by 11?

Options:

- 1) 9
- 2) 7
- 3) 5
- 4) 3

Correct Answer: 9

QID : 627 - A can do $\frac{2}{3}$ rd of a job in 18 days and B can do $\frac{1}{3}$ rd of the job in 18 days. If they work on it together, in how many days can they do half of the job?

Options:

- 1) 12
- 2) 15
- 3) 9
- 4) 18

Correct Answer: 9

QID : 628 - What is the area (in sq cm) of an equilateral triangle of side 16 cm?

Options:

- 1) $128\sqrt{3}$
- 2) $64\sqrt{3}$
- 3) $32\sqrt{3}$
- 4) $96\sqrt{3}$

Correct Answer: $64\sqrt{3}$

QID : 629 - What is the effective discount (in %) of two successive discounts of 10% and 40%?

Options:

- 1) 50

-
- 2) 36
 - 3) 55
 - 4) 46

Correct Answer: 46

QID : 630 - Profit of Rs 49,800 has to be divided between three partners A, B and C in the ratio 4:7:9. How much does B (in Rs) get?

Options:

- 1) 17430
- 2) 9960
- 3) 18450
- 4) 22410

Correct Answer: 17430

QID : 631 - The average weight of P, Q and R is 84 kg. If the average weight of P and Q be 86 kg and that of Q and R be 75 kg, then what is the weight (in kgs) of Q?

Options:

- 1) 65
- 2) 75
- 3) 70
- 4) 80

Correct Answer: 70

QID : 632 - A shopkeeper by selling 9 items, earns a profit equal to the selling price of 1 item. What is his profit percentage?

Options:

- 1) 25
- 2) 12.5
- 3) 20
- 4) 10

Correct Answer: 12.5

QID : 633 - What is the value of 16% of 25% of 400?

Options:

- 1) 16
- 2) 8
- 3) 40
- 4) 160

Correct Answer: 16

QID : 634 - To cover a distance of 90 km in 1 hour 15 minutes what should be the average speed of the car in meters/second?

Options:

- 1) 10
- 2) 15
- 3) 20
- 4) 25

Correct Answer: 20

QID : 635 - In 3 years at simple interest the principal increases by 24%. What will be the compound interest (in Rs) earned on Rs. 5,000 in 2 years at the same rate?

Options:

- 1) 725
- 2) 840
- 3) 832
- 4) 816

Correct Answer: 832

QID : 636 - If $5x/6 - (4/3)(2 - 3x/2) = 1/3$, then what is the value of x?

Options:

- 1) 17/18
- 2) -18/17
- 3) 18/17
- 4) -17/18

Correct Answer: 18/17

QID : 637 - If $a^3 + b^3 = 28$ and $ab = 3$, then what is the value of $a + b$?

Options:

- 1) 2
- 2) 4
- 3) 9
- 4) 3

Correct Answer: 4

QID : 638 - Thrice a fraction is greater than its reciprocal by $46/7$. What is the fraction?

Options:

- 1) $\frac{7}{3}$
- 2) $\frac{3}{7}$
- 3) $\frac{5}{4}$
- 4) $\frac{4}{5}$

Correct Answer: $\frac{7}{3}$

QID : 639 - What is the sum of the first 13 terms of an arithmetic progression if the 5th term is -2 and the 8th term is 7?

Options:

- 1) -61
- 2) 52
- 3) -15
- 4) 72

Correct Answer: 52

QID : 640 - What is the reflection of the point (-2, 5) in the line $x = 1$?

Options:

- 1) (4, -5)
- 2) (4, 5)
- 3) (-4, -5)
- 4) (-4, 5)

Correct Answer: (4, 5)

QID : 641 - Point P is the midpoint of segment AB. Co-ordinates of P are (-5, -2) and A are (-2, 0). What are the co-ordinates of point B?

Options:

- 1) (-8, -4)
- 2) (-8, 4)
- 3) (8, -4)
- 4) (8, 4)

Correct Answer: (-8, -4)

QID : 642 - What is the slope of the line perpendicular to the line passing through the points (2, -5) and (4, 0)?

Options:

- 1) $-5/2$
- 2) $2/5$
- 3) $-2/5$
- 4) $5/2$

Correct Answer: $-2/5$

QID : 643 - $\triangle ABC$ is similar to $\triangle PQR$. If ratio of perimeters of $\triangle ABC : \triangle PQR$ is 3:5 and if $PQ = 15$ cm, then what is the length (in cm) of AB ?

Options:

- 1) 9
- 2) 10
- 3) 12
- 4) 8

Correct Answer: 9

QID : 644 - What is the value of $(\sqrt{2}) \sec 30^\circ + (1/\sqrt{2}) \tan 60^\circ = ?$

Options:

- 1) $7/6$
- 2) $5/\sqrt{6}$
- 3) $5/6$
- 4) $7/\sqrt{6}$

Correct Answer: $7/\sqrt{6}$

QID : 645 - $\triangle LMN$ is right angled at M . If $m\angle N = 30^\circ$, then

$\tan L \times (1/2) \operatorname{Cosec} L = ?$

Options:

- 1) 2
- 2) $1/\sqrt{2}$
- 3) 1
- 4) $1/2$

Correct Answer: 1

QID : 646 - If $\sin \theta = 12/37$, then,

$\cot \theta = ?$

Options:

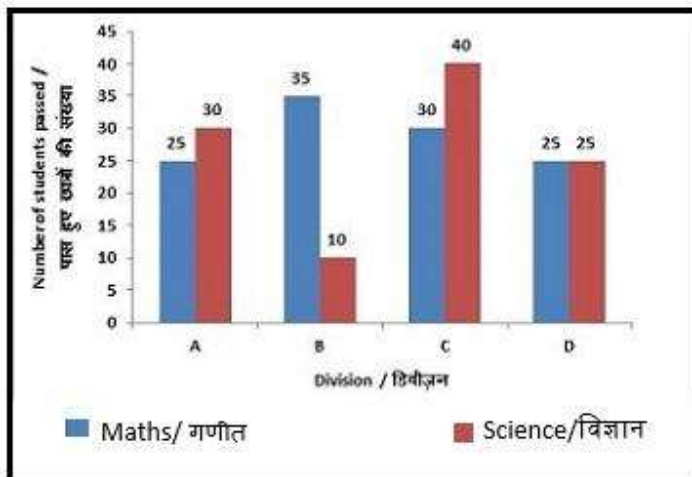
- 1) 35/12
- 2) 12/35
- 3) 37/12
- 4) 35/37

Correct Answer: 35/12

QID : 647 -

The bar graph shows number of students of the four divisions (A, B, C, D) of grade X who have passed in exams of Math and Science. Study the diagram and answer the following questions.

बार ग्राफ़ दसवीं कक्षा की चार डिवीज़नों (A, B, C, D) के उन छात्रों की संख्या दर्शाता है जिन्होंने गणित और विज्ञान की परीक्षा में उत्तीर्ण किया। इस आरेख का अध्ययन करें और निम्नलिखित प्रश्नों का उत्तर दें।



In which division, the number of students who passed in Math was greater than those who passed in Science?

Options:

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

Correct Answer: B