Virtusa Sample Paper

1.The total number of selections of 5 fruits which can be made from 4 oranges, 3 apples and 2 bananas taking at least one of each kind is:

A. 44
B. 55
C. 98
D. 59

Explanation:
Total number of possible selection of 5 fruits out of 9 fruits = 9C5 = 126.
According to ques,
We have to select one of each kind, therefore unfavourable events
=> Selecting only from oranges and apples = 7C5 = 21.
=> Selecting only from oranges and bananas = 6C5 = 6.
=> Selecting only from apples and bananas = 5C5 = 1.
Total no of selection of 5 fruits taking at least one of each kind = 126 -(21+6+1) = 98.

2.In how many ways can 4 girls and 5 boys be arranged in a row so that all the four girls are together?

A. 17000
B. 17280
C. 18000
D. None of these

Explanation:
Let 4 girls be one unit and now there are 6 units in all.
They can be arranged in 6! ways.
In each of these arrangements 4 girls can be arranged in 4! ways.
=> Total number of arrangements in which girls are always together
= 6! *4! =720*24= 17280.

3.Look at this series: 3, 4, 7, 8, 11, 12, ... What number should come next?

A. 7
B. 10
C. 14
D. 15

Explanation:
This alternating addition series begins with 3; then 1 is added to give 4; then 3 is added to give 7; then 1 is added, and so on.

4.Find the missing pattern of the series: -
B2CD, _____, BCD4, B5CD, BC6D

A. B2C2D
B. BC3D
C. B2C3D
D. BCD7

Explanation:
Because the letters are the same, concentrate on the number series, which is a simple 2, 3, 4, 5, 6 series, and follows each letter in order.

5.A boy goes to a playground from the house at 5 km/hr. by 10 minute late. If he goes at 6 km/hr. he would be 5 minutes early. What is the distance of the of playground from his house?
A. 7.5 km
B. 8 km
C. 10 km
D. 12 km
Explanation:
Let the distance be x km.
Difference in timings = 15 min = 15/60 hr. = 1/4 hr.
=> x/5 - x/6 = 1/4.
=> 6x - 5x = 30/4.
=> x = 7.5 km.

6.A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?
A. 12 days
B. 15 days
C. 16 days
D. 18 days
Explanation:
Work done in first two days when only A works = 2 * 1/20= 1/10.
Work done on third day when A is assisted by B and C = (1/20) + (1/30) + (1/60) = 1/10.
So work done in first 3 days = (1/10) + (1/10) = 1/5.
Since, 1/5 work is done in 3 days.
So the complete work is done in 15 days.

7.Find the odd man out.
835, 734, 642, 751, 853, 981, 532
A. 751
B. 853
C. 743
D. 835
Explanation:
In each number except 751, the difference of third and first digit is the middle one.

8.A clock showing 6 O'clock takes 30 secs to strike 6 times. How long will it take to strike 12 at midnight?
A. 60 secs
B. 70 secs
C. 66 secs
D. 50 secs

Explanation:
For first strike there is no time needed. So other 5 strikes need 30 secs.
So, each takes as (30/5) =6 secs.

Same at 12 o'clock, 11 strikes time = (11*6) =66 secs.

9.Three friends divided some bullets equally. After all of them shot 4 bullets the total number of bullets remaining is equal to the bullets each had after division. Find the original number divided.
A. 18
B. 20
C. 12
D. 15
Explanation:
Initially: - Let x be the number of bullets divided to each of the friends.
After shooting: - x-4 x-4 x-4
Here, Total bullet = 3x.
Bullets lost = 12.
Hence, according to the question,
=> 3x - 12 = x.
=> 2x = 12.
=> x = 6.
Hence, the original number of bullets were 3 * 6 = 18.

10.Father is aged three times more than his son Sunil. After 8 years, he would be two and a half times of Sunil's age. After further 8 years, how many times would he be of Sunil's age?
A. 4 times
B. 5 times
C. 2 times
D. 3 times
Explanation:
Assume that Sunil's present age = x.
Then father's present age = 3x + x = 4x.
After 8 years, fathers age = 2 12 times of Sunil's age
=> (4x + 8) = (2) (1/2) (x+8).
=> 4x + 8 = (5/2) (x + 8).
=> 8x + 16 = 5x+ 40.
=> 3x = 40-16 = 24.
=> x = 24/3 = 8.

After further 8 years,
Sunil's age = x + 8+ 8 = 8+8+8 = 24.
Father's age = 4x + 8 + 8 = 4 8 + 8 + 8 = 48.
Father's age/Sunil's age = 48/24 = 2.

Virtusa Logical Reasoning Test

11.Syllogism: -
Statements: - All the trucks are flies. Some scooters are flies.
Conclusions:
All the trucks are scooters.
Some scooters are trucks
1. A. Only (1) conclusion follows
B. Only (2) conclusion follows
C. Either (1) or (2) follows
D. Neither (1) nor (2) follows
E. Both (1) and (2) follow
Answer: A.

12.Syllogism: -
Statements: - No door is dog.
All the dogs are cats.
Conclusions: -
No door is cat.
No cat is door.
Some cats are dogs.
All the cats are dogs.
A. Only (2) and (4)
B. Only (1) and (3)
C. Only (3) and (4)
D. Only (3)
E. All the four
Answer: D.

13.Syllogism: -
Statements: All the phones are scales. All the scales are calculators.
Conclusions:
All the calculators are scales.
All the phones are calculators
All the scales are phones.
Some calculators are phones.
1. A. Only (1) and (4)
B. Only (3) and (4)
C. Only (2) and (4)
D. Only (1) and (2)
E. Only (1) and (3)
Answer: C.

14.Syllogism: -
Statements: All the books are pencils. No pencil is eraser.
Conclusions:
All the pencils are books.
Some erasers are books.
No book is eraser.
Some books are erasers.
1. A. Only (3)
B. Only (1) and (3)
C. Only (1) and (2)
D. Only (2) and (3)
E. Only (3) and (4)
Answer: A.

15.Syllogism: -
Statements: All the locks are keys. All the keys are bats. Some watches are bats.
Conclusions:
Some bats are locks.
Some watches are keys.
All the keys are locks.
1. A. Only (1) and (2)
B. Only (1)
C. Only (2)
D. Only (1) and (3)
Answer: B.

16.Data Sufficiency: -
F and M are father and mother of S, respectively. S has four uncles and three aunts. F has two siblings. The siblings of F and M are unmarried. How many brothers does M have?
A. F has two brothers.
B. M has five siblings.
A. Statement 1 alone is sufficient, but Statement 2 alone is not sufficient to answer the question
B. Statement 2 alone is sufficient, but Statement 1 alone is not sufficient to answer the question
C. Both statements taken together are sufficient to answer the question, but neither statement alone is sufficient
D. Each statement alone is sufficient
E. Statements 1 and 2 together are not sufficient, and additional data is needed to answer the question
Explanation:
S has 4 uncles and 3 aunts (all unmarried).
2 (uncles or aunts) from his father side and 5 (uncle or aunts from his mother side)
From statement A: -
F has 2 brothers i.e. 2 uncles from father side. remaining 2 uncles from mother side. Mother M has 2 brothers. So, Question can be answered using statement A

From statement B: -
Mother has 5 siblings, which is also clear from main statement. But it is not clear how many brother and how many sisters. Question cannot be answered using statement B.

17.Data Sufficiency: -
Q is a two-digit number. What is the value of Q?
(I) One of the two digits is 3 more than the other.
(II) Both the digits are prime.

A. Statement 1 alone is sufficient, but Statement 2 alone is not sufficient to answer the question
B. Statement 2 alone is sufficient, but Statement 1 alone is not sufficient to answer the question
C. Both statements taken together are sufficient to answer the question, but neither statement alone is sufficient
D. Each statement alone is sufficient
E. Statements 1 and 2 together are not sufficient, and additional data is needed to answer the question
Explanation:
Clearly by using any of the statement alone we cannot come to any conclusion. Let's use both of them together and proceed.
Possible two digit numbers where both digits are prime and one digit is 3 more than other are:
25, 52
There are two possible values of Q. So, we cannot tell a certain value for Q.

18.Data Sufficiency: -
Question: What is Gagan's age?
Statements:
I. Gagan, Vimal and Kunal are all of the same age.
II. Total age of Vimal, Kunal and Anil is 32 years and Anil is as old as Vimal and Kunal together.
A. I alone is sufficient while II alone is not sufficient
B. II alone is sufficient while I alone is not sufficient
C. Either I or II is sufficient
D. Neither I nor II is sufficient
E. Both I and II are sufficient
Explanation:
As given in I and II, we have: G = V = K, V + K + A = 32 and A = V + K.
Putting V + K = A in V + K + A = 32, we have: 2A = 32 or A = 16.
Thus, V + K = 16 and V = K.
So, V = K = 8.
Thus, G = 8.

19.Data Sufficiency: -
What is the number x?
A. The LCM of x and 18 is 36.
B. The HCF of x and 18 is 2.
A. Statement 1 alone is sufficient, but Statement 2 alone is not sufficient to answer the question

B. Statement 2 alone is sufficient, but Statement 1 alone is not sufficient to answer the question
C. Both statements taken together are sufficient to answer the question, but neither statement alone is sufficient
D. Each statement alone is sufficient
E. Statements 1 and 2 together are not sufficient, and additional data is needed to answer the question
Explanation:
We know that product of two numbers = LCM × HCF = 36 × 2 = 72.
So x = 72/18 = 4.
Hence, both statements are required to answer the question.

20.Data Sufficiency: -
Question: How much money do Vivek and Suman have together?
Statements:
Suman has 20 rupees less than what Tarun has.
Vivek has 30 rupees more than what Tarun has.
1. A. I alone is sufficient while II alone is not sufficient
B. II alone is sufficient while I alone is not sufficient
C. Either I or II is sufficient
D. Neither I nor II is sufficient
E. Both I and II are sufficient
Explanation:
From I, we have: S = T - 20.
From II, we have: V = T + 30.
Thus, from both I and II, we have: V + S = (T + 30) + (T - 20) = (2 T + 10).
So, to get the required amount, we need to know the amount that Tarun has.

Virtusa Verbal Ability Test

21.Sentence correction: -
Which of phrases given below each sentence should replace the phrase printed in bold type to make the grammatically correct? If the sentence is correct as it is, mark 'E' as the answer.
"It was unanimously resolved that the parties should unitedly undertook launching of popular programmes."
A. should be united undertook
B. should be unitedly undertaken
C. should be unitedly undertake
D. should unitedly undertake
E. No correction required
Answer: D.

22.Which of phrases given below each sentence should replace the phrase printed in bold type to make the grammatically correct? If the sentence is correct as it is, mark 'E' as the answer.
"The easiest of the thing to do is to ask the address to the postman."
A. of the things to do
B. among the things did
C. of the thing to be done
D. of all the things done
E. No correction required
Answer: A.

23.Choose the right phrase: -
That which cannot be corrected

A. Unintelligible
B. Indelible
C. Illegible
D. Incorrigible
Explanation:
Incorrigible (Adjective): (of a person or their tendencies) Not able to be corrected, improved, or reformed.

24.Choose the correct preposition to fill the blank below:
Mike spent his childhood ..... Brighton.
A. in
B. at
C. on
D. inside
Answer: A.

25.Choose the right phrase: -
To end in smoke
A. To make completely understand
B. To ruin oneself
C. To excite great applause
D. None of these
Answer: B.

26.Choose the right phrase: -
To be above board

A. To have a good height
B. To be honest in any business deal
C. They have no debts
D. To try to be beautiful
E. None of these

Answer: B.

The enjoyment of physical possession of things would seem to be one of the prerogatives of wealth which has been little impaired. Presumably nothing has happened to keep the man who can afford them from enjoying his Rembrandt and his homegrown orchids. But enjoyment of things has always been associated with the third prerogative of wealth which is the distinct it confers. In a world where nearly everyone was poor, the distinction was very great. It was the natural consequence of rarity. In England it is widely agreed, the ducal families are not uniformly superior. There is a roughly normal incidence of intelligence and stupidity, good taste and bad taste, morality, immorality. But very few people are dukes and duchesses, although the later have become rather more frequent with modern easing of divorce laws. As a result, even though they may be intrinsically unexceptional they are regarded with some awe. So it has long have been with the rich. Were dukes numerous their position would deteriorate. As the rich have become more numerous, they have inevitably become a debased currency.

27.The distinction conferred by wealth
A. was unfair to the poor
B. was unlikely to spread throughout the world
C. was very great when there were many rich people
D. was very great when there were few rich people
Answer: D.

28.The enjoyment of the physical possession of things
A. is one of the privileges of wealth which has not been changed
B. is one of the privileges of wealth which should be curtailed
C. has little to do with the prerogatives of wealth
D. is a prerogative of wealth which cannot be disputed
Answer: A.

29.Ducal families in England
A. are generally agreed to be fairly common
B. are generally agreed to be fairly superior
C. are superior because they are rich
D. are generally agreed not to be always better than others
Answer: D.

30.There are more duchesses now because
A. they are debased
B. it is easier for dukes to divorce and remarry
C. dukes are more immoral than they used to be
D. there position has deteriorated
Answer: B.