Quantitative Analysis

1. **The average of 21 results is 20. Average of 1st 10 of them is 24 that of last 10 is 14. the result of 11'th is :.**
   a. 42
   b. 44
   c. 46
   d. 40
   Answer:

   40
   Explanation:
   11'th result = sum of 21 results – sum of 20 results
   = 21 x 20 – (24 x 10 + 14 x 10)
   = 420 – (240 + 140)
   = 420- 380 = 40

2. **A perfect number n is a number which is equal to the sum of its divisors. Which of the following is a perfect number?**
   a. 6
   b. 9
   c. 15
   d. 21
   Answer:

   9
   Explanation:
   6 is divisible by 1, 2 and 3.
   And, 6 = 1 + 2 + 3.

3. **Three numbers are in the ratio of 2 : 3 : 4 and their L.C.M. is 240. Their H.C.F. is:**
   a. 40
   b. 20
   c. 30
   d. 10
   Answer:

20

Explanation:

Let the numbers be 2x, 3x and 4x
LCM = 12x
12x=240
=> x=20
H.C.F of 40, 60 and 80=20

4. **A stadium was to be built in 1500 days. The contractor employed 200 men, 300 women and 750 robotic machines. After 600 days, 75% of the work was still to be done. Fearing delay, the contractor removed all women and 500 robotic machines. Also, he employed some more men having the same efficiency as earlier employed men. This led to a speedup in work and the stadium got built 50 days in advance. Find the additional number of men employed if in one day, six men, ten women and fifteen robotic machines have same work output.**
   a. 1100
   b. 1340
   c. 1300
   d. 1140

   Answer:

   1140

   Explanation:

   Let the total work be 4 units.
   => Work done in first 600 days = 25% of 4 = 1 unit
   => Work done in next 850 days = 75% of 4 = 3 unit
   Also, we are given that the daily work output of 6 men, 10 women and 15 robotic machines are same.
   => 6 Em = 10 Ew = 15 Er
   => Em : Ew : Er = 5 : 3 : 2, where 'Em' is the efficiency of 1 man, 'Ew' is the efficiency of 1 woman and 'Er' is the efficiency of 1 robotic machine.
   Therefore, ratio of efficiency of man, woman and robotic machine = 5:3:2.
   If 'k' is the constant of proportionality, Em = 5k, Ew = 3k and Er = 2k.
   Here, we need to apply the formula
   ***=> $(M_i E_i) D_1 H_1 / W_1 = (M_j E_j) D_2 H_2 / W_2$,** where*
   => $(M_i E_i)$ = (200 x 5k) + (300 x 3k) + (750 x 2k)
   => $(M_j E_j)$ = (200 x 5k) + (m x 5k) + (250 x 2k), where 'm' is the additional men employed
   D_1 = 600 days
   D_2 = 850 days
   $H_1 = H_2$ = Daily working hours
   W_1 = 1 unit
   W_2 = 3 units
   So, we have

3400k x 600 / 1 = (1500 + 5m)k x 850 / 3
=> 3400k x 1800 = (1500 + 5m)k x 850
=> 1500 + 5m = 7200
=> 5m = 5700
=> m = 1140
Therefore, additional men employed = 1140

5. **Two pipes A and B work alternatively with a third pipe C to fill a swimming pool. Working alone, A, B and C require 10, 20 and 15 hours respectively. Find the total time required to fill the pool.**
   a. 7 hours 14 minutes
   b. 6 hours 54 minutes
   c. 5 hours 14 minutes
   d. 8 hours 54 minutes

   Answer:

   66 hours 54 minutes

   Explanation:

   Let the total work be 3 units and additional men employed after 18 days be 'x'.
   => Work done in first 18 days by 20 men working 8 hours a day = (1/3) x 3 = 1 unit
   => Work done in last 10 days by (20 + x) men working 9 hours a day = (2/3) x 3 = 2 unit

   Here, we need to apply the formula

   M1 D1 H1 E1 / W1 = M2 D2 H2 E2 / W2,

   where
   M1 = 20 men
   D1 = 18 days
   H1 = 8 hours/day
   W1 = 1 unit
   E1 = E2 = Efficiency of each man
   M2 = (20 + x) men
   D2 = 10 days
   H2 = 9 hours/day
   W2 = 2 unit

   So, we have
   20 x 18 x 8 / 1 = (20 + x) x 10 x 9 / 2
   => x + 20 = 64
   => x = 44

Therefore, number of additional men employed = 44

6. **TwPeter and Beckon start to walk in the same direction together. If Peter's speed is 5 km/h and Beckon's speed is 6 km/h, find out the time duration after which they are 17 km apart.**
   a. 15
   b. 17
   c. 19
   d. 20
   Answer:

   17
   Explanation:
   In 1 hour Peter covers 5 km and Beckon covers 6 km.
   So, they are 1 km apart after 1 hour.
   Therefore, they are 17 km apart after 17 hours.

7. **A train is running at a speed of 100Kmph. A car is running on road parallel to the train's track at a speed of 20 Kmph in the same direction as of train. How much time will it take to cross the car if the length of the train is 100 meters?**
   a. 5 sec
   b. 4 sec
   c. 5.5 sec
   d. 4.5 sec
   Answer:

   4.5 sec
   Explanation:
   Relative speed of train = 100-20 Kmph (say car is stopped)

   T = D/V = 0.100/80 = .00125 hrs

   *=> 00125*3600 = 4.5 secs*

8. **Ram spends 20% of is salary on food, 15 % of remaining on cloths, and 400 on entertainment. If his salary is 10000, how much he spends on food?**
   a. 2000
   b. 3000
   c. 1500
   d. 2500

Answer:

`2000`
Explanation:
*10000*20/100 = 2000*

9. **The ratio 5:3 represents 16 litres of a mixture containing milk and water. If 4 litres of water is added and 4 litres of milk is extracted from the mixture, then the ratio of the mixture will be:**
   a. 7:3
   b. 5:6
   c. 2:3
   d. None of these
   Answer:

   `None of these`
   Explanation:
   Amount of Milk in 16 litres of mixture: (5/8) x 16 = 10 litres
   Amount of Water in 16 litres of mixture: 16-10 = 6 litres
   If we add 4 litres of water and extract 4 litres of milk,
   the total volume remains the same.
   Amount of Milk in 16 litres of new mixture: = 10 – 4 = 6 litres
   Amount of Water in 16 litres of new mixture: = 6 + 4 = 10 litres
   So, the new ratio becomes 3:5.

10. **A is as older than B as he is younger than C.If the sum of ages of B and C is 68 years. What is the present age of A?**
    a. 24 years
    b. 34 years
    c. 28 years
    d. 32 years
    Answer:

    `34 years`
    Explanation:
    A – B = C – A
    => 2A = B + C
    And also given that B + C = 68
    => 2A = 68
    => A = 34

Verbal Reasoning

1. **Ram is smarter than Mohan. Rakesh is smarter than Ramu and Mohini is smarter than Rakesh. Which of the following is a set(s) of additional information that can determine the smartest person?**
2. **(I) Mohini is smarter than Ram and Mohan is smarter than Rakesh.**
3. **(II) Mohan is smarter than Mohini.**
4. **(III) Ram is smarter than Mohini.**

   a. Only (II)
   b. Only (III)
   c. Either (I) or (II)
   d. None of these

   Answer:

   Either (I) or (II)

   Explanation:

   It is given that : Ram is smarter than Mohan, (i.e., Ram > Mohan). Rakesh is smarter than Ramu and Mohini is smarter than Rakesh (Mohni > Rakesh > Ramu).
   Our purpose is to add more possible set(s) of additional information that can determine the smartest person.

   *With the help of set (I), we can get **Mohini** as the smartest person.*
   *With the help of set (II), we can get **Ram** as the smartest person.*
   But we can not conclude the smartest person with the set (III), because we have ambiguity (can be either Ram or Mohni).
   So, only set (I) or (II) can decide the smartest person.
   Option (C) is correct.

5. **The long, anxious, and frustrating wait by people outside banks and ATMs across the country over the last five days is an inevitable consequence of the decision to demonetize notes of Rs.500 and Rs.1, 000. When 86 per cent of the value of notes in circulation turns suddenly invalid, as it did with Prime Minister Modi's 'surgical strike' last week, a certain degree of disruption and pain is unavoidable. But the question is whether this chaos could have been anticipated and managed better than it has been.**
   Replacement of the demonetized notes is a time-consuming exercise that requires planning of the highest order. The experience of the last few days shows that preparation was lacking and the transition could have been handled much better.
   Thankfully, the Centre has woken up to ease the pressure on the system by increasing withdrawal limits, allowing for petroleum outlets and hospitals to

accept the old series of notes until November 24 and pushing more cash through post offices.

Why do you think that the replacement of the demonetized notes is a time-consuming exercise?

a. It takes more than 50 days to replace demonized notes.
b. Demonetization is a 'futile exercise' to target black money and fake currency
c. The government was lazy enough to issue the decision of demonetization before.
d. Replacement process requires planning of the highest order and careful implementation.

Answer:

Replacement process requires planning of the highest order and careful implementation.

Explanation:

According to the passage, the demonetization process requires careful thought process, well-chalked out implementation strategies and above all planning of the highest order from the policy makers as well as government.

So, option (D) is most appropriate choice.

6. **The long, anxious, and frustrating wait by people outside banks and ATMs across the country over the last five days is an inevitable consequence of the decision to demonetize notes of Rs.500 and Rs.1, 000. When 86 per cent of the value of notes in circulation turns suddenly invalid, as it did with Prime Minister Modi's 'surgical strike' last week, a certain degree of disruption and pain is unavoidable. But the question is whether this chaos could have been anticipated and managed better than it has been.**

Replacement of the demonetized notes is a time-consuming exercise that requires planning of the highest order. The experience of the last few days shows that preparation was lacking and the transition could have been handled much better.

Thankfully, the Centre has woken up to ease the pressure on the system by increasing withdrawal limits, allowing for petroleum outlets and hospitals to accept the old series of notes until November 24 and pushing more cash through post offices.

Which of the following option is false ?

a. 'Unconcerned' is similar in meaning to the word 'anxious' as used in the passage.
b. 'Disorder' is similar in meaning to the word 'chaos' as used in the passage.
c. 'Hardship' is opposite in meaning to the word 'ease' as used in the passage.
d. 'Shift' is opposite in meaning to the word 'transition'as used in the passage.

Answer:

'Unconcerned' is similar in meaning to the word 'anxious' as used in the passage.

Explanation:
(A) 'Unconcerned' is opposite in meaning to the word 'anxious' as used in the passage.
(B) 'Disorder' word implies that due to the demonetization, citizens all over the country were facing issues with the currency exchange.
(C) 'Hardship' is the right choice.
(D) 'shift' is the right choice.

Only option (A) is false.

7. **There was a man on the news last night who reckons we ——— visited by beings from other worlds.**
   a. were
   b. have been
   c. had been
   d. had
   Answer:

   `have been`
   Explanation:
   Reckons is a verb, which means 'believe' or 'think'. The man on the news (last night) believes that we have been visited by beings from other worlds. So, only option (B) is suitable.

8. **Choose the most closely related word for 'Paradox'**
   a. Certitude
   b. Enigma
   c. Explanation
   d. Derivative
   Answer:

   `Enigma`
   Explanation:
   'Paradox' is a noun, which can be related as a Puzzle. In given options, Enigma (a puzzle) is the only closely related word to Paradox.
   So, option (B) is correct.

9. **"From where are they bringing their books=> _____ bringing _____ books from _____." The words that best fill the blanks in the above sentence are**
   a. Their, they're, there
   b. They're, their, there
   c. There, their, they're
   d. They're, there, there
   Answer:

`They're, their, there`

Explanation:

"From where are they bringing their books=> Who bringing Whose books from Where." Who – A group as subject = They are Whose – of that group = their Where – from a place = there "From where are they bringing their books=> They are bringing their books from there."

So, option (B) is the correct choice.

10. **A _____ investigation can sometimes yield new facts, but typically organized once are more successful.**
    a. Meandering
    b. Timely
    c. Consistent
    d. Systematic

    Answer:

    `Meandering`

    Explanation:

    *Meandering (as adjective) = proceeding in a convoluted or **undirected fashion**.*
    Timely (as adjective) = done or occurring at a favourable or useful time; opportune.
    Consistent (as adjective) = acting or done in the same way over time, especially so as to be fair or accurate.
    Systematic (as adjective) = done or acting according to a fixed plan or system; methodical.

    *Therefore, **meandering** is correct choice, all other options are similar to the word organized.*
11. **Select the correct SYNONYM for:**

    Together
    a. Common
    b. Obstinate
    c. Same
    d. Jointly

    Answer:

    `D`
12. **Select the correct SYNONYM for:**

    Almost
    a. Crafty
    b. Nearly
    c. Relevant
    d. Summary

    Answer:

B

13. **Select the correct ANTONYM for:**
    Arise
    a. Appear
    b. Dive
    c. Occur
    d. Emerge
    Answer:

    B

Logical Reasoning

1. **Find wrong number in series:**
   8, 12, 16, 27, 40.5, 60.75
   a. 12
   b. 16
   c. 40.5
   d. 60.75
   Answer:

   B
   Explanation:
   (8 × 3) ÷ 2 = 12
   (12 × 3) ÷ 2 = 18
   (18 × 3) ÷ 2 = 27
   (27 × 3) ÷ 2 = 40.5
   (40.5 × 3) ÷ 2 = 60.75

2. **Find wrong number in series:**
   15, 25, 30, 51, 85, 90, 115
   a. 30
   b. 51
   c. 85
   d. 115
   Answer:

   51
   Explanation:
   All except 51 are multiple of 5

Directions to solve Question 3 and 4: Each of the questions given below consists of a statement and/or a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement(s) is/are sufficient to answer the given question.
Read both the statements and Give answer
(a) if the data in Statement I alone is sufficient to answer the question, while the data in Statement II alone is not sufficient to answer the question.
(b) if the data in Statement II alone is sufficient to answer the question, while the data in Statement I alone is not sufficient to answer the question.
(c) if the data in each Statement I and Statement II alone is sufficient to answer the question.
(d) if the data even in both Statements I and II together are not sufficient to answer the question.
(e) if the data in both Statements I and II together are necessary to answer the question.

3. **Who is lightest among A, B, C, D?**
   I. A is heavier than B, and B is heavier than D
   II. B is lighter than C
   a. (a)
   b. (b)
   c. (c)
   d. (d)
   e. (e)
   Answer:

   (e) if the data in both Statements I and II together are necessary to answer the question.

4. **How is A related to B?**
   Statement I. B is the brother of A
   Statement II. C is the wife of A
   a. (a)
   b. (b)
   c. (c)
   d. (d)
   e. (e)
   Answer:

   (e) if the data in both Statements I and II together are necessary to answer the question.

5. Consider the following phrase:
   Statement: All C are J.
   All J are B.
   No B is R.
   Conclusions:
   I. All B are C.
   II. Some J are C
   Choose the correct option given below:
   a. only conclusion I is true.
   b. only conclusion II is true.
   c. either conclusion I or conclusion II is true
   d. neither conclusion I nor conclusion II is true
   e. both conclusions I and II are true.
   Answer:

   (b) only conclusion II is true.
   Explanation:
   All B are not C

6. Consider the following phrase:
   Statement: A good man is hard to find
   Assumptions:
   I. There is very less chance to find a man with good qualities nowadays
   II. Today's men are mostly sleeves snakes.
   Choose the correct option given below.
   a. If only assumption I is implicit
   b. If only assumption II is implicit.
   c. If either I or II is implicit.
   d. If neither I nor II is implicit.
   e. If both I and II are implicit.
   Answer:

   (a)

7. Consider the following phrase:
   Statement: A little knowledge is a dangerous thing
   Assumptions:
   I. Small amount of information can mislead people
   II. People often make more mistakes if they have little knowledge about the topic
   Choose the correct option given below.
   a. If only assumption I is implicit
   b. If only assumption II is implicit.

c. If either I or II is implicit.
d. If neither I nor II is implicit.
e. If both I and II are implicit.

Answer:

(e)

8. **Statements:**
I – Some S are L
II – Some C are P
III – All P is R
Conclusions:
I. Some P are L
II. Some C are R
Choose the correct option given below:
a. only conclusion I is true.
b. only conclusion II is true.
c. either conclusion I or conclusion II is true
d. neither conclusion I nor conclusion II is true
e. both conclusions I and II are true.

Answer:

(d) neither conclusion I nor conclusion II is true

9. Find wrong number in series: 3, 15, -35, 63, -99
a. 3
b. 15
c. -35
d. 63

Answer:

3

Explanation:
Series: $S_n = -1*3 + 3*5 - 5*7 + \ldots$

10. Find wrong number in series: 1, 4, 16, 25, 36
a. 4
b. 16
c. 25
d. 36

Answer:

16

Explanation:

$Tn = 1^2 + 2^2 + 3^2 + 4^2 + \ldots..$