

1) Let A be a square matrix of size n x n. Consider the following program. What is the expected output?

```
C = 100
for i = 1 to n do
for j = 1 to n do
{
    Temp = A[i][j] + C
    A[i][j] = A[j][i]
    A[j][i] = Temp - C
}
for i = 1 to n do
for j = 1 to n do
Output(A[i][j]);
```

- a. Transpose of matrix A
- Adding 100 to the upper diagonal elements and subtracting 100 from diagonal elements of A
- c. The matrix A itself
- d. None of these
- 2) Consider a hash table with 9 slots. The hash function is $h(k) = k \mod 9$. The collisions are resolved by chaining. The following 9 keys are inserted in the order: 5, 28, 19, 15, 20, 33, 12, 17, 10. The maximum, minimum, and average chain lengths in the hash table, respectively, are
 - 1. 3, 0 and 2
 - 2. 4, 0, 1
 - 3. 3, 0, and 1
 - 4. 3, 3, and 3
- 3) Suppose implementation supports an instruction REVERSE, which reverses the order of elements on the stack, in addition to the PUSH and POP



instructions. Which one of the following statements is TRUE with respect to this modified stack?

- 1. A queue cannot be implemented using this stack.
- 2. A queue can be implemented where ENQUEUE takes a sequence of three instructions and DEQUEUE takes a single instruction.
- 3. A queue can be implemented where both ENQUEUE and DEQUEUE take a single instruction each.
- 4. A queue can be implemented where ENQUEUE takes a single instruction and DEQUEUE takes a sequence of two instructions.
- 4) A priority queue is implemented as a Max-Heap. Initially, it has 5 elements. The level-order traversal of the heap is: 10, 8, 5, 3, 2. Two new elements 1 and 7 are inserted into the heap in that order. The level-order traversal of the heap after the insertion of the elements is:
- 1. 10, 8, 7, 2, 3, 1, 5
- 2. 10, 8, 7, 1, 2, 3, 5
- 3. 10, 8, 7, 3, 2, 1, 5
- 4. 10, 8, 7, 5, 3, 2, 1
- 5) State True or False.
- i) Binary search is used for searching in a sorted array.
- ii) The time complexity of binary search is O(logn).
- 1. False, True
- 2. True, True
- 3. False, False
- 4. True, False



6) A binary tree that has n leaf nodes.	The number of nodes of degree 2 in
this tree is ?	

- 1. n
- 2. n 1
- 3. log2n
- 4. n^2
- 7) Which of the following is true about the characteristics of abstract data types? https://www.freshersnow.com/previous-year-question-papers/
- i) It exports a type.
- ii) It exports a set of operations
- 1. False, False
- 2. True, True
- 3. True, False
- 4. False, True
- 8) A machine took 200 sec to sort 200 names, using bubble sort. In 800 sec, it can approximately sort?
- 1. 800 names
- 2. 400 names
- 3. 750 names
- 4. 800 names



- 9) The average search time of hashing with linear probing will be less if the load factor?
- 1. equals one
- 2. is far less than one
- 3. is far greater than one
- 4. none of these
- 10) The initial configuration of the queue is a,b,c,d (a is the front end). To get the configuration d,c,b,a one needs a minimum of ?
- 1. 3 deletions and 4 additions
- 2. 3 deletions and 3 additions
- 3. 3 additions and 2 deletions
- 4. 2 deletions and 3 additions
- 11) State true or false.
- i) The degree of root node is always zero.
- ii) Nodes that are not root and not leaf are called as internal nodes.
- 1. False, False
- 2. True, True
- 3. False, True
- 4. True, False
- 12) The number of binary trees with 3 nodes which when traversed in post order gives the sequence A,B,C is ?
- 1.9
- 2.3



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- 13) Which of the following is not the internal sort?
- 1. Insertion Sort
- 2. Merge Sort
- 3. Heap Sort
- 4. Bubble Sort
- 14) Consider the tree arcs of a BFS traversal from a source node W in an unweighted, connected, undirected graph. The tree T formed by the tree arcs is a data structure for computing.
- 1. the shortest path from W to every vertex in the graph.
- 2. the shortest paths from W to only those nodes that are leaves of T.
- 3. the longest path in the graph
- 4. the shortest path between every pair of vertices.
- 15) The number of swapping needed to sort numbers 8,22,7,9,31,19,5,13 in ascending order using bubble sort is ?
- 1. 12
- 2. 11
- 3. 14
- 4. 13
- 16) The postfix expression for * + a b c d is?
- 1. ab cd + *
- 2. ab + cd * -
- 3. ab + cd *



4. ab + cd - *

- 17) Given two sorted lists of size m and n respectively. The number of comparisons needed in the worst case by the merge sort algorithm will be?
- 1. min(m,n)
- 2. mn
- $3. \max(m,n)$
- 4. m+n-1
- 18) State True of False.
- i) Network is a graph that has weights or costs associated with it.
- ii) An undirected graph which contains no cycles is called a forest.
- iii) A graph is said to be complete if there is no edge between every pair of vertices.
- 1. True, True, True
- 2. True, False, True
- 3. True, True, False
- 4. False, True, True
- 19) Consider the following pseudo code. What is the total number of multiplications to be performed?

$$D = 2$$

for i = 1 to n do

for j = i to n do



for
$$k = j + 1$$
 to n do $D = D * 3$

- 1. Half of the product of the 3 consecutive integers.
- 2. One-third of the product of the 3 consecutive integers.
- 3. One-sixth of the product of the 3 consecutive integers.
- 4. No
- 20) If the sequence of operations push(1), push(2), pop, push(1), push(2), pop, pop, pop, push(2), pop are performed on a stack, the sequence of popped out values are ?
- 1. 2, 1, 2, 2, 1
- 2. 2, 1, 2, 2, 2
- 3. 2, 2, 1, 2, 2
- 4. 2, 2, 1, 1, 2



Direction (Q. 1 - 5): Choose the Synonyms of the following words

- 1. Impartial
- A. Biased
- B. Distant
- C. Unjust
- D. Equitable

Answer – D. Equitable

Explanation: Equitable – fair and impartial.

2. Hoodwink

- A. Brittle
- B. Lucidity
- C. Deteriorate
- D. Deceive

Answer - D. Deceive

Explanation: Hoodwink – deceive or trick.

- 3. Conscript
- A. Inverse
- B. Draft
- C. Retrogress
- D. Explicitness

Answer - B. Draft

Explanation: Conscript – enlist (someone) compulsorily, typically into the armed services.

- 4. Vulnerable
- A. Foregoing
- B. Relentless
- C. Swamp
- D. Endangered

Answer - D. Endangered

Explanation: Vulnerable – exposed to the possibility of being attacked or harmed, either physically or emotionally.



5. Staggering

- A. Accumulate
- B. Thwart
- C. Interminable
- D. Lurch

Answer - D. Lurch

Explanation: Staggering – walk or move unsteadily, as if about to fall.

Direction (Q. 6 - 10): Choose the Antonyms of the following words

6. Promulgate

- A. Impudent
- B. Conceal
- C. Decent
- D. Compliant

Answer - B. Conceal

Explanation: Promulgate – promote or make widely known (an idea or cause).

7. Opulence

- A. Critical
- B. Finicky
- C. Poverty
- D. Funky

Answer – C. Poverty

Explanation: Opulence – great wealth or luxuriousness.

Poverty – the state of being extremely poor.

8. Usurp

- A. Grant
- B. Viability
- C. Liquefaction
- D. Flexibility



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Answer – A. Grant Explanation: Usurp – take (a position of power or importance) illegally or by force. Grant – agree to give or allow (something requested) to.
9. Pledge
A. Break B. Placate C. Curtail D. Unwise
Answer – A. Break Explanation: pledge – a solemn promise or undertaking.
10. Occult
A. Dissuade B. Rash C. Natural D. Discreet
Answer – C. Natural Explanation: Occult – mystical, supernatural, or magical powers, practices, or phenomena.
Direction (Q. 11 - 14): Fill in the Blanks. Choose the correct word which makes the sentence meaningful
11. Until a few years ago, the toss-up for the city's commuters was between overcrowded city buses and, sometimes-greedy autorickshaw drivers.
A. stunning B. usual C. eccentric D. horrible

Answer - C. eccentric

Explanation: eccentric – unusual



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12. The bench also struck down the 99th Constitution Amendment Act, which was passedby both Houses of Parliament.
A. rimation
B. publicly
C. unanimously
D. conjunctively
2. Sorijanstivery
Answer - C. unanimously
Explanation: unanimously – with the agreement
13. Thisstrengthens the allegation that the influence of the executive in the
appointment of judges cannot be ruled out unless a judicial commission is formed.
A. hindrance
B. thoughts
C. consent
D. persuasion
American D. monoversion
Answer - D. persuasion
Explanation: persuasion – opinion
14. Even after 10 years of the RTI, I find a widespread lack of
A. ingratiating,
B. inviting
C. cognizance
D. misunderstanding
· ·
Answer - C. cognizance
Explanation: cognizance – awareness
Direction (Q. 11 - 14): Choose the correct words which substitute the bolded words.
15. A fight broke out in the pub and it was hard to pull the people involved Abido
15. A fight broke out in the pub and it was hard to pull the people involved Abide.A. pull, of
B. pull, over
C. pull, in
D. pull, apart
and the series of the series o
Answer – D. pull, apart
Explanation: Pull apart – Stop people or animals fighting.



16.	She didn't get	t on till well	after twelve	e o'clock	because	she'd	been	out for	a few	drinks
with	n her mates.									

- A. get in
- B. get up
- C. get on
- D. get receive

Answer - A. get in

Explanation: get in – Arrive home.

17. The opposition parties are trying to **Clean off** the voters they lost in the last election.

- A. Clean of
- B. Clag up
- C. Clawback
- D. Clam up

Answer - C. clawback

Explanation: Clawback – Retake possession with difficulty.

- **18.** She **wheeled around** when he told her to stop.
- A. while away
- B. weigh out
- C. weird out
- D. wheeled round

Answer - D. wheeled round

Explanation: wheeled round – Turn quickly and face in the opposite direction.

- **19.** The boat **keeled of** in the storm and the crew drowned.
- A. keeled up
- B. keeled over
- C. keeled at
- D. keeled out

Answer – B. keeled over

Explanation: keeled over – Turn upside down.



- **20.** I spent the afternoon **gadding of** in the West End.
- A. gadding of
- B. gadding about
- C. gadding over
- D. gadding on

Answer – B. gadding about

Explanation: Gadabout (gadding about) – Visit a lot of different places for pleasure.



 Four of the following five are alike in a certain way 	\prime and so form a group. Which is
the one that does not belong to that group?	

- A. Chess
- B. Badminton
- C. Cricket
- D. Volleyball
- E. Table tennis

Answer - A. Chess

Explanation: Remaining games are played in the field

2. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?

- A. Win
- B. Compete
- C. Triumph
- D. Victory
- E. Succeed

Answer - B. Compete

Explanation: Remaining words give the same meaning

- 3. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
- A. Jackal
- B. Horse
- C. Cat
- D. Dog
- E. Wolf

Answer - B. Horse

Explanation: Horse alone omnivores

4. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?

A. YB

B. AD



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◡.	11.

D. MP

E. WZ

Answer - C. IK

Explanation: Remaining pairs have 2 letters between them

- 5. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
- A. BCDF
- B. KJNL
- C. RSTU
- D. WXYZ
- E. FGHP

Answer - C. RSTU

Explanation: Remaining are contained only consonants

- 6. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
- A. Avoid
- B. Obstruct
- C. Block
- D. Hamper
- E. Impede

Answer - A. Avoid

Explanation: Remaining words give the same meaning

- 7. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
- A. Arvind Kejriwal
- B. Siddaramaiah
- C. Draupadi Murmu
- D. Mukul Sangma
- E. Nabam Tuki

Answer – C. Draupadi Murmu



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Draupadi Murmu is governor of Jharkhand remaining all are CM 's

Pradpadi marma to governor or orianarana romaning an are om e
8. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
A. Wheat B. Corn C. Millet D. Jowar E. Cotton
Answer – E. Cotton Explanation: Cotton is a fiber crop, remaining are food crops
9. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
A. Sparrow B. Parrot C. Swan D. Koel E. Vulture
Answer – C. Swan Explanation: Only Swan is the water bird
10. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
A. Manure B. Ammonia C. Urea D. Potash E. Nitrogen
Answer – E. Nitrogen Explanation: All except Nitrogen are used as fertilizers



11. Statements:

- **I.** The bank decided to give advances to the priority sector at the rate of interest at par with the corporate sector.
- **II.** The percentage of bad loans given by the banks to the priority sector is very low compared to the corporate sector.
- A. I is the cause and II is its effect.
- B. II is the cause and I is its effect.
- C. Both I and II are independent causes.
- D. Both I and II are effects of independent causes.
- E. Both I and II are effects of some common causes.

Answer – D. Both the I and II are effects of independent causes.

Explanation:

The bank can change its policy with the priority sector due to a change in the government policy. Thus, it is an effect. But the same cause cannot be the reason for the percentage of bad loans being less for the priority sector.

12. Statements:

- **I.** Many seats in the private medical colleges in the state have remained vacant this year.
- **II.** The government medical colleges in the state could accommodate all the students who sought admission this year.
- A. I is the cause and II is its effect.
- B. II is the cause and I is its effect.
- C. Both I and II are effects of independent causes.
- D. Both I and II are effects of some common causes.
- E. Both I and II are independent causes.

Answer - B. II is the cause and I is its effect.

Explanation:

Statement II is the cause and statement I is its effect. As the government medical college could accommodate all students who applied to it (and most medical students prefer government colleges which are less expensive), many seats in the private medical colleges in the state have remained vacant.

13. Statements:



- I. The Ganges river is flooded due to large sheets of ice coming down from the Himalayas.
- II. Many people in the Himalayan ranges lost their houses under huge sheets of ice.
- A. I is the cause and II is its effect.
- B. II is the cause and I is its effect.
- C. Both I and II are effects of some common causes.
- D. Both I and II are independent causes.
- E. Both I and II are effects of independent causes.

Answer – C. Both I and II are effects of some common causes.

Explanation:

Both statements are the effects of some common cause. In this case, the cause is 'melting' or 'sliding down of ice' from the Himalayan mountain ranges. Some common climatic cause is associated with the occurrence and hence the effects have been manifested in the following way.

- 14. In a class of 20 students, Shreya is 5 from the top and Annie is 7 ranks below Shreya. Find Annie's rank from the bottom.
- A. 3
- B. 5
- C. 6
- D. 9
- E. None of these

Answer - D. 9

Explanation:

Annie is 12 ranks from top, so from bottom = 20-12 + 1 = 9

- 15. Rita is sitting 5th from the left end of the row and Sita is 11th to the right of Rita with Tina being 4th to left of Sita. Madhuri is 8th to the right of Tina. What is the total number of students in the row if Madhuri is sitting at the extreme end?
- A. 20
- B. 28
- C. 23
- D. 33
- E. 12

Answer - A. 20



Explanation:

Rita is 5th from left, Sita 11th to the right of Rita, so 16th from the left end, Tina is 4th to left of Sita so Tina is 12th from the left end. Now Madhuri is 8th to the right of Tina, this means 20th from left, so 20 students

16. Karuna is sitting 25th from the left end and Preeti is sitting 26th from the right end.
Preeti is at 20th to the left of Karuna. What is the total number of students sitting in
the row?

- A. 21
- B. 32
- C. 26
- D. 28
- E. 30

Answer - E. 30

Explanation:

Karuna is 25th from the left end and Preeti is 20th to left of Karuna so Preeti is 5th from the left end and given 26th from the right end, so total = (5+26) - 1 = 30

17. In a row of 30 children, A is 11th from the right end of row. If there are 4 children between A and B, What is the position of B from the left end of the row?

- A. 5
- B. 8
- C. 4
- D. 6
- E. Cannot be determined

Answer - E. Cannot be determined

Explanation:

Since it is not given that B is left of A or right of A, cant is determined.

18. Prerna is 5th from the left end and Charu is 4th from the right of the row. Charu interchanges her position with the one who is sitting 3rd to the right of Prerna and now Charu is 10th from the right end. How many children are there in the row?

- A. 18
- B. 20
- C. 15
- D. 17



E. 16

Answer - D. 17

Explanation:

Let A is 3rd to the right of Prerna, so Charu comes to his place so now charge is (5+3) = 8th from the left end and also she is 10th from the right end, so in total (8+10)-1 = 17

19. Judge: Court:: Doctor:?

- A. Municipality
- B. Hospital
- C. Tehsil
- D. Factory
- E. None of these

Answer – B. Hospital

Explanation:

The judge sits in court similarly doctor sits in a hospital

20. Carbon dioxide: Extinguish:: Oxygen:?

- A. Foam
- B. Explode
- C. Burn
- D. Isolate
- E. None of these

Answer – C. Burn

Explanation:

Oxygen supports Burning similarly Carbon dioxide helps in extinguishing

21. Kitten: Cat:: Cub:?

- A. Tiger
- B. Dear
- C. Giraffe
- D. Horse
- E. None of these

Answer - A. Tiger



Explanation:

Kitten is the young one of Cat similarly Cub is the younger one of Tiger

22. Den: lion:: stable: ?

- A. Cat
- B. Dog
- C. Horse
- D. Cow
- E. None of these

Answer - C. Horse

Explanation:

Lion lives in den similarly Horse lives in Stable

23. Thermometer: Temperature:: Barometer:?

- A. Stress
- B. Pressure
- C. Strain
- D. Force
- E. None of these

Answer – B. Pressure

Explanation:

The thermometer is used to measure to Temperature similarly Barometer is used to measure Pressure

24. In which year was Sugan born?

- I. Sugan's present age is 20 years more than his child
- II. Sugans have two children. The first child was born in 1993?
- A. Only I
- B. Only II
- C. Both I and II
- D. Either I or II
- E. Neither I or II

Answer - 5. Neither I or II



Explanation:

From I:

S = 20+Which child(not mentioned)

From II:

Only data about first child

25. How many students did secure First class in a class of 50 students?

- **I.** Double the number of first-class students secured second class and all the remaining students failed
- II. Number of students failed was twice the number of first class students in the class
- A. Only I
- B. Only II
- C. Both I and II
- D. Either I or II
- E. Neither I or II

Answer - 3.Both I and II

Explanation:

From I:

No of Students Failed = 50-3x

From II:

No of Students Failed = 2x

2x = 50-3x

5x=50

X = 10



1. A certa	ain number of m	ien take 45 d	ays to comp	olete work.	If there are	10 men less
then they	y will take 60 da	ys to comple	te the work.	Find the o	riginal num	ber of men.

- A. 50
- B. 60
- C. 30
- D. 40

Answer - D. 40

Explanation:

Let us assume initially there are X men. Then x*45 = (x-10)*60. So we get x = 40

2. 5 men and 10 boys can do a piece of work in 30 days and 8 men and 12 boys can do the work in 20 days then the ratio of daily work done by a man to that of a boy.

- A. 5:1
- B. 4:5
- C. 6:1
- D. 7:3

Answer - C. 6:1

Explanation:

Given that, 5m + 10b = 1/30 and 8m + 12b = 1/20 after solving we get m = 1/200 and b = 1/1200 so required ratio = (1/200) : (1/1200) = 6:1

- 3. 4 women and 5 men working together can do 3 times the work done by 2 women and one man together. Calculate the work of a man to that of a woman.
- A. 1:1
- B. 3:2
- C. 1:2
- D. 2:1

Answer – A. 1:1

Explanation:

Given

$$4w + 5m = 3*(2w + m)$$

i.e. 2w = 2m

so the ratio of work done by man to woman is 1:1



- 4. Manoj can do a work in 20 days, while Chandu can do the same work in 25 days. They started the work jointly. A few days later Suresh also joined them and thus all of them completed the whole work in 10 days. All of them were paid total Rs.1000. What is the share of Suresh?
- A. 100
- B. 300
- C. 200
- D. 400

Answer – A. 100

Explanation:

Efficiency of Manoj = 5%

The efficiency of Chandu = 4%

They will complete only 90% of the work = [(5+4)*10] = 90

Remaining work was done by Suresh = 10%.

Share of Suresh = 10/100 * 1000 = 100

- 5. Nagarjuna lends Rs 30,000 of two of his friends. He gives Rs 15,000 to the first at 6% p.a. simple interest. He wants to make a profit of 10% on the whole. The simple interest rate at which he should lend the remaining sum of money to the second friend is
- A. 8%
- B. 12%
- C. 14%
- D. 16%

Answer - C. 14%

Explanation:

Simple Interest on Rs 15000

 $=(15000\times6\times1)/100 = Rs. 900$

Profit to made on Rs 30000

= 30000×10/100=Rs 3000

Simple Interest on Rs.15000 = 3000-900 = Rs.2100

Rate=(S.I.* 100)/(P * T)=(2100×100)/15000

=14% per annum

Therefore, the simple interest rate at which he should lend the remaining sum of money to the second friend is 14%



6. A portion of \$6600 is invested at a 5% annual return, while the remainder is invested at a 3% annual return. If the annual income from the portion earning a 5% return is twice that of the other portion, what is the total income from the two investments after one year?

- A. 270
- B. 250
- C. 280
- D. 200

Answer - A. 270

Explanation:

According to the given data

5x + 3y = z (total)

x + y = 6600

5x = 2(3y) [condition given] 5x - 6y = 0

x + y = 6600

5x - 6y = 0

Subtract both equations and you get x = 3600 so y = 3000

3600*.05 = 180

3000*.03 = 90

z (total) = 270

Therefore, the total income from the two investments after one year = 270

7. While calculating the weight of a group of men, the weight of 63 kg of one of the member was mistakenly written as 83 kg. Due to this the average of the weights increased by half kg. What is the number of men in the group?

- A. 25
- B. 20
- C. 40
- D. 60

Answer - C. 40

Explanation:

Increase in marks lead to an increase in average by 1/2

So
$$(83-63) = x/2$$

$$x = 40$$

Therefore, the number of men in the group are 40



8. In a group of 8 be	oys, 2 men aged at 21 an	nd 23 were replaced	l, two new boys. Due t	O
this the average co	st of the group increased	d by 2 years. What	is the average age of	
the 2 new boys?				

- A. 17
- B. 30
- C. 28
- D. 23

Answer - B. 30

Explanation:

According to the given data

Average of 8 boys increased by 2, this means the total age of boys increased by 8*2 = 16 yrs

So sum of ages of two new boys = 21+23+16 = 60

Average of these = 60/2 = 30

9. A Boat takes total 16 hours for traveling downstream from point A to point B and coming back point C which is somewhere between A and B. If the speed of the Boat in Still water is 9 Km/hr and the rate of stream is 6 Km/hr, then what is the distance between A and C?

- A. 60 Km
- B. 90 Km
- C. 30 Km
- D. Cannot be determined

Answer - D. Cannot be determined

Explanation:

16 = D/9 + 6 + x/9 - 6

10. A Boat going upstream takes 8 hours 24 minutes to cover a certain distance, while it takes 5 hours to cover 5/7 of the same distance running downstream. Then what is the ratio of the speed of boat to speed of water current?

- A. 11:5
- B. 11:6
- C. 11:1
- D. 6:5



Answer – C. 11:1

Explanation:

(S-R)*42/5 = (S+R)*7

S:R = 11:1

- 11. A Boat takes 128 min less to travel to 48 Km downstream than to travel the same distance upstream. If the speed of the stream is 3 Km/hr. Then Speed of Boat in still water is?
- A. 12 Km/hr
- B. 15 Km/hr
- C. 6 Km/hr
- D. 9 Km/hr

Answer - A. 12 Km/hr

Explanation:

32/15 = 48(1/s-3 - 1/s+3)

s = 12

Therefore, Speed of Boat in still water is 12 Km/hr.

- 12. An alloy contains Brass, Iron, and Zinc in the ratio 2:3:1 and another contains Iron, zinc, and lead in the ratio 5:4:3. If equal weights of both alloys are melted together to form a third alloy, then what will be the weight of lead per kg in new alloy?
- A. 1/4
- B. 41/7
- C. 1/8
- D. 51/9

Answer - C. 1/8

Explanation:

Shortcut:

In the first alloy,

2:3:1 =6*2

5:4:3 =12

Multiply 2 to make it equal,

4:6:2

5:4:3

Adding all,

4:11:6:3=24

3/24=1/8



13. A milkman mixes 6 liters of free tap water with 20litres of pure milk. If the cost of pure milk is Rs.28 per liter the % Profit of the milkman when he sells all the mixture at the cost price is

- A. 30%
- B. 16(1/3)%
- C. 25%
- D. 16.5%

Answer – A. 30%

Explanation:

Profit=28*6=728

Cp=28*20=560

Profit = 168*100/560=30%

14. 144 liters of the mixture contains milk and water in the ratio 5: 7. How much milk needs to be added to this mixture so that the new ratio is 23: 21 respectively?

- A. 40 liters
- B. 28 liters
- C. 32 liters
- D. 36 liters

Answer - C. 32 liters

Explanation:

144 == 5:7

60:84

Now == 21 = 84

23 = 92

92-60 = 32

15. A shopkeeper bought 30kg of rice at Rs.75 per kg and 20 kg of rice the rate of Rs.70. per kg.If he mixed the two brand of rice and sold the mixture at Rs.80 per kg. Find his gain

- A. Rs.350
- B. Rs.550
- C. Rs.420
- D.Rs.210

Answer – A. Rs.350



Explanation:

- 16. Cost price of 80 notebooks is equal to the selling price of 65 notebooks. The gain or loss % is
- A. 32%
- B. 42%
- C. 27%
- D. 23%

Answer – D. 23%

Explanation:

% = [80 - 65/65]*100 = 15*100/65 = 1500/65 = 23.07 = 23% profit

Therefore, the gain percentage is 23%.

- 17. Eight years ago, Pranathi's age was equal to the sum of the present ages of her one son and one daughter. Five years hence, the respective ratio between the ages of her daughter and her son that time will be 7:6. If Pranathi's husband is 7 years elder to her and his present age is three times the present age of their son, what is the present age of the daughter?
- A. 19 years
- B. 27 years
- C. 15 years
- D. 23 years

Answer - D. 23 years

Explanation:

$$P - 8 = S + D$$
—(1)
 $6D + 30 = 7S + 35$ —(2)
 $H = 7 + P$
 $H = 3S$
 $3S = 7 + P$ —(3)

Solving equation (1),(2) and (3) D = 23

Therefore, the present age of the daughter is 23 years



18. Shas married 8 year ago. Today her age is 9/7 times to that time of marriage. At present his son's age is 1/6th of her age. What was her son's age 3 year ago?

```
A. 4 yr
B. 2 yr
C. 3 yr
```

D. 5 yr

Answer - B. 2 yr

Explanation:

Let us assume that Sravan's age 8 year ago = xPresent age = x + 8 x + 8 = 9/7 x 7(x + 8) = 9x x = 28; 28 + 8 = 36Son's age = 1/6 * 36 = 6Son's age 4 year ago = 6-4 = 2

19. The respective ratio between the present age of Mani and Dheeraj is x:42. Mani is 8 years younger than Murali. Murali's age after 8 years will be 33 years. The difference between Dheeraj's and Mani's age is same as the present age of Murali. What is the value of x?

```
A. 18
B. 10
C. 16
D. 17
```

Answer – D. 17

Explanation:

Murali's age after 8 years = 33 years Murali's present age = 33 - 8 = 25 years Mani's present age = 25 - 8 = 17 years Dheeraj's present age = 17 + 25 = 42 years Ratio between Mani and Dheeraj = 17: 42X = 17

20. Revanth's present age is three times his son's present age and 4/5th of his father's present age. The average of the present ages of all of them is 62 years. What is the difference between the Revanth's son's present age and Revanth's father's present age?



- A. 64 years
- B. 69 years
- C. 66 years
- D. 62 years

Answer - C. 66 years

Explanation:

Present age of Revanth is = 4/5x

Present age of Revanth's father is = 4/15x

Ratio = 15: 12: 4

Difference between the Revanth's son's present age and Revanth's father's present age = 62/31 * 3(15 - 4).

= 2*3*11 = 66 years.

21. **36% of 945 – 26% of 765 + 17.7 =?**

- A. 167
- B. 187
- C. 159
- D. 143

Answer – C. 159

Explanation:

340.2 - 198.9 = 141.3 + 17.7 = 159

22. \(\dagga(456\div 12\div 142\div 11)\div =?\)

- A. 11
- B. 169
- C. 23
- D. 13

Answer – D. 13

Explanation:

38+142-11 = 169 = 13*13

23. 1(1/5) of 1(1/2) of ? = 216

- A. 100
- B. 125
- C. 140
- D. 120



Answer – D. 120

Explanation:

6/5*3/2 *x = 216 X = 216*2*5/6*3 = 2160/18 = 120

24. **15 32 60 122 240 ?**

A. 488

B. 482

C. 364

D. 362

Answer – B. 482

Explanation:

15 * 2 + 2 = 32

32 * 2 - 4 = 60

60 * 2 + 2 = 122; 122 * 2 - 4 = 240

Then 240*2 + 2 = 482

25. **18 10 8 9 11.5 ?**

A. 10.75

B. 18.75

C. 19.75

D. 14.75

Answer – D. 14.75

Explanation:

18 / 2 + 1 = 10

10/2 + 3 = 8

8/2 + 5 = 9

9/2 + 7 = 11.5

11.5 / 2 + 9 = 14.75