

1.) Atomicity is _____

Options

- a) Either all actions are carried out or none are. Users should not have to worry about the effect of incomplete transactions. DBMS ensures this by undoing the actions of incomplete transactions.
- b) A concept which is used to model a relationship between a collection of entities and relationships. It is used when we need to express a relationship among relationships.

Answer : a) Either all actions are carried out or none are. Users should not have to worry about the effect of incomplete transactions. DBMS ensures this by undoing the actions of incomplete transactions.

2.) The phase that identifies an efficient execution plan for evaluating a query that has the least estimated cost is referred to as_____.

Options

- a) Query optimization
- b) Query String

Answer : a) Query optimization

3.) Expansion of DDL is _____.

Options

- a) Data Description Language
- b) Data Definition Language
- c) Data Degree Language

Answer : Data Definition Language

4.) A collection of conceptual tools for describing data, data relationships data semantics and Constraints is called as_____.

Options

- a) Data base
- b) Table
- c) Data model

Answer: Data model

5.) _____ is copying the three sets of files (database files, redo logs, and control file) when the instance is shut down. This is a straight file copy, usually from the disk directly to tape. You must shut down the instance to guarantee a consistent copy.

Options

- a) cold backup
- b) hot backup
- c) Armstrong Rules

Answer: cold backup

6.) _____ is a program module, which ensures that database remains in a consistent state despite system failures and concurrent transaction execution proceeds without conflicting.

Options

- a) Transaction manager
- b) File manager
- c) None of these

Answer: Transaction manager

7.) _____ is a program module that provides the interface between the low-level data stored in database, application programs and queries submitted to the system.

Options

- a) Buffer manager
- b) Storage manager
- C) None of these

Answer : Storage manager

8.) A _____ with respect to DBMS relates to user commands that are used to interact with a data base.

Options

- a) Connection string
- b) Query String
- c) Query

Answer : Query

9.) A 2 mb PCM (Pulse Code Modulation) has

Options

- a) 32 voice channels
- b) 30 voice channels & 1 signalling channel
- c) 31 voice channels & 1 signalling channel
- d) 32 channels out of which 30 voice channels, 1 signalling channel and 1 synchronization channel.

Answer : 31 voice channels & 1 signalling channel

10.) Word alignment is

Options

- a) aligning the address to the next word boundary of the machine
- b) aligning to even boundary
- c) aligning to word boundary
- d) none of the above

Answer : aligning the address to the next word boundary of the machine

11.) To send a packet data using datagram, when a connection will be established

Options

- a) before data transmission
- b) connection is not established before data transmission
- c) no connection required
- d) none of the above

Answer : no connection required

12.) The status of the kernel is?

Options

- a) task
- b) process
- c) not defined
- d) none of the above

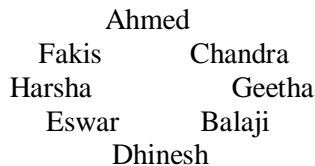
Answer : Process

13.) Eight friends Harsha, Fakis, Balaji, Eswar, Dhinesh, Chandra, Geetha, and Ahmed are sitting in a circle facing the center.

Balaji is sitting between Geetha and Dhinesh. Harsha is third to the left of Balaji and second to the right of Ahmed. Chandra is sitting between Ahmed and Geetha and Balaji and Eshwar are not sitting opposite to each other. Who is third to the left of Dhinesh?

Answer: Fakis

Explanation: Arranging the friends as per the question statement we can arrive at the following diagram



Hence correct answer is Fakis.

14.) A fast typist can type some matter in 2 hours and a slow typist can type the same in 3 hours. If both type jointly, in how much time will they finish?

Answer: 1 hr 12 min

Explanation : The fast typist's work done in 1 hr = $\frac{1}{2}$

The slow typist's work done in 1 hr = $\frac{1}{3}$

If they work jointly, work done in 1 hr = $\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$

So, the work will be completed in $\frac{6}{5}$ hours. i.e., $1\frac{1}{5}$ hours = 1hr 12 min

15.) Today is 4.11.09. Keeping that figure 41109 in mind, i have arrived at the following sequence: 2, 1, 9, 5, _ Which of the following four numbers can fill the dash?

Options

- a) 7
- b) 65

- c) 4563
d) 262145

Answer : 41109

$$1^4 + 1 = 2$$

$$1^1 + 0 = 1$$

$$0^1 + 9 = 9$$

$$9^0 + 4 = 5$$

So next is $4^9 + 1 = 262145$

16.) Let S be a Set of some positive integral numbers; with an average of 47; and containing the number 83. The numbers may or may not be distinct .However ; when the number 83 is removed ; the Avg drops to 46 .What is the largest number that can be possibly contained in that Set ?

Solution:

Let S be the sum of that set of n positive integers. $S/n = 47$

$$(S - 83)/(n - 1) = 46$$

Solving the above 2 equations, we get $S = 1739$; $n = 37$.

This set of 37 positive integers contains 83. To get to the expected answer, we have to Suppose that 35 of the remaining 36 integers has a value of 1 each (least +ve integer).

Thus, the largest possible integer in the set = $1739 - 83 - 35*1 = 1621$

17.) Sum of squares of two numbers 'x' and 'y' is less than or equal to 100. How many sets of integer solutions of 'x', 'y' is possible?

Answer: Total 317 solutions

Explanation:

$x = 0, |y| \leq 10 \rightarrow 21$ solutions

$|x| = 1, |y| \leq 9 \rightarrow 38$ solutions

$|x| = 2, |y| \leq 9 \rightarrow 38$ solutions

$|x| = 3, |y| \leq 9 \rightarrow 38$ solutions

$|x| = 4, |y| \leq 9 \rightarrow 38$ solutions

$|x| = 5, |y| \leq 8 \rightarrow 34$ solutions

$|x| = 6, |y| \leq 8 \rightarrow 34$ solutions

$|x| = 7, |y| \leq 7 \rightarrow 30$ solutions

$|x| = 8, |y| \leq 6 \rightarrow 26$ solutions

$|x| = 9, |y| \leq 4 \rightarrow 18$ solutions

$|x| = 10, y = 0 \rightarrow 2$ solutions

18.) There is a unique number of which the square and the cube together use all ciphers from 0 up to 9 exactly once. Which number is this?

Answer: The number is 69.

Explanation:

$$69^2 = 4761 \text{ and } 69^3 = 328509..$$

19.) You are standing next to a well, and you have two jugs. One jug has a content of 3 litres and the other one has a content of 5 litres. How can you get just 4 litres of water using only these two jugs?

Solution:

Fill 3 litre jug pour to 5 litre jug

Fill again 3 litre jug and add to 5 litre jug then 1 litre will be there in 3 litre jug

Pour all water outside from 5 litre jug

Fill 1 litre water from 3 litre jug to 5 litre jug

Fill 3 litre jug and add to 5 litre jug making it 4 litres of water.

Note: some questions are directly given with answers and solutions without having options.

20.) The Java interpreter is used for the execution of the source code.

Options

True

False

Ans: True

21.) What declarations are required for every Java application?

Ans: A class and the main() method declarations.

22.) What are the two primary components involved in executing a Java program and their purposes?

Ans: Two parts in executing a Java program are:

Java Compiler and Java Interpreter.

The Java Compiler is used for compilation and the Java Interpreter is used for execution of the application.

23.) What are the three basic OOPs principles and define them?

Ans : Encapsulation, Inheritance and Polymorphism are the three OOPs Principles.

Encapsulation:

Is the Mechanism that binds together code and the data. It manipulates, and keeps both safe from outside interference and misuse.

Inheritance:

Is the process by which one object acquires the properties of another object.

Polymorphism:

Is a feature that allows one interface to be used for a general class of actions

24.) What are identifiers and what are their naming conventions in C?

Ans : Identifiers are used for class names, method names and variable names. An

identifier may be any descriptive sequence of upper case & lower case letters, numbers or underscore or dollar sign and must not begin with numbers.

25.) What is the return type of program's main() method?

Ans : void

26.) What is the use of bin and lib in JDK?

Ans : Bin contains all tools such as javac, applet viewer, awt tool etc., whereas Lib contains all packages and variables.

27.) The Java source code can be created in a Notepad editor.

Options

- a) True
- b) False

Ans: True

28.) What is the difference between strcmp and strncmp functions in C?

Answer:

strcmp function compares two given strings till their entire lengths. But strncmp compares only the specified n characters of the strings from the start.

29.) Write a single statement that can interchange values of two variables without utilizing a third variable.

Answer:

Let us consider two variables a and b. Then one of the solutions is $a = (a + b) - (b = a);$

30.) In C, arrays can be passed by reference. State True or False.

Answer:

Yes, it is true, arrays are passed by reference (Though individual or group of elements of the array can be passed by value/values as well.)

31.) Name the function which takes two strings as arguments and copies the second string into the character array of the first string. After this the function returns the value of the first string.

Answer: strcpy is the answer.

32.) Blocks are chosen randomly on a chessboard. What is the probability that they are in the same diagonal?

Answer:

There are total of 64 blocks on a chessboard. So 3 blocks can be chosen out of 64 in ${}^{64}C_3$ ways.

So the sample space is = 41664

There are 2 diagonal on chessboard each one having 8 blocks. Consider one of them.

3 blocks out of 8 blocks in diagonal can be chosen in 8C_3 ways.

But there are 2 such diagonals, hence favourable = $2 * {}^8C_3 = 2 * 56 = 112$

The required probability is

$$= 112 / 41664$$

$$= 1 / 372$$

$$= 0.002688$$

33.) What is the area of the triangle ABC with A(e,p) B(2e,3p) and C(3e,5p)?

where $p = \pi$ (3.141592654)

Answer:

A tricky ONE.

Given 3 points are collinear. Hence, it is a straight line.

Hence area of triangle is 0.

34.) Silu and Meenu were walking on the road. Silu said, "I weigh 51 Kgs. How much do you weigh?" Meenu replied that she wouldn't reveal her weight directly as she is overweight. But she said, "I weigh 29 Kgs plus half of my weight". How much does Meenu weigh?

Answer

Meenu weighs 58 Kgs.

It is given that Meenu weighs 29 Kgs plus half of her own weight. It means that 29 Kgs is the other half. So she weighs 58 Kgs.

Solving mathematically, let's assume that her weight is X Kgs.

$$X = 29 + X/2$$

$$2 \cdot X = 58 + X$$

$$X = 58 \text{ Kgs}$$

35.) Consider the sum: $ABC + DEF + GHI = JJJ$. If different letters represent different digits, and there are no leading zeros, what does J represent?

Answer

The value of J must be 9. Since there are no leading zeros, J must be 7, 8, or 9. ($JJJ = ABC + DEF + GHI = 14? + 25? + 36? = 7??$) Now, the remainder left after dividing any number by 9 is the same as the remainder left after dividing the sum of the digits of that number by 9.

Also, note that $0 + 1 + \dots + 9$ has a remainder of 0 after dividing by 9 and JJJ has a remainder of 0, 3, or 6. The number 9 is the only number from 7, 8 and 9 that leaves a remainder of 0, 3, or 6 if you remove it from the sum $0 + 1 + \dots + 9$. Hence, it follows that J must be 9.

36.) Using two 2's and two 3's and using a maximum of three mathematical signs, symbols, can you have a result in between 14 and 15? Concatenation (clubbing of digits) allowed.

Solution:

$$(23 + 3!) / 2 = 14.5$$

37.) What is the 2883rd term in the series 1234567891011121314.....

Options

- a) 3
- b) 4
- c) 7
- d) 9

Solution:

there are 9 no. of single digit

there are 180 no. of double digit

there are 2700 no. of three digit

now total 2889 no. till 999

remaining no. are 25494 that is divided by 4 and the q is 6373 with remainder of 2 so 28381
 is $6373 + 999 = 737(2)$
 n next no is $7(3)73$
 so ans is 3

38.) $a*b*c*d*e + b*c*d*e*f + a*c*d*e*f + a*b*d*e*f + a*b*c*e*f + a*b*c*d*f = a*b*c*d*e*f$ and a,b,c,d,e and f are all positive nonrepeating integers then solve a,b,c,d,e, and f.

Solution :

Start with $1/2 + 1/2$, then progressively split the last part x into $2x/3 + x/3$. This gives the following progression:

2,2
 2,3,6
 2,3,9,18
 2,3,9,27,54
 2,3,9,27,81,162

39.) 729 ml of a mixture contains milk and water in ratio 7:2. How much of the water is to be added to get a new mixture containing half milk and half water?

Options

- (i) 79 ml
- (ii) 81 ml
- (iii) 72 ml
- (iv) 91 ml

Solution:

Milk = $(729 * (7/9)) = 567\text{ml}$

Water = $(729 - 567) = 162\text{ml}$

Let water to be added be x ml $567/(162+x) = 7/3$ $1701 = 1134 + 7x$ $x = 81\text{ml}$

40.) If one-seventh of a number exceeds its eleventh part by 100 then the number is...

Options:

- (i) 770
- (ii) 1100
- (iii) 1825
- (iv) 1925

Solution:

Let the number be x. Then $X/7 - x/11 = 100$ $11x - 7x = 7700$ $x = 1925$.

41.) If $1.5x = 0.04y$ then the value of $(y-x)/(y+x)$ is

- (i) $730/77$
- (ii) $73/77$
- (iii) $7.3/77$
- (iv) None

Solution:

$x/y = 0.04/1.5 = 2/75$

So $(y-x)/(y+x) = (1 - x/y)/(1 + x/y) = (1 - 2/75)/(1 + 2/75) = 73/77$.

42.) The smallest number which when diminished by 3 is divisible by 21, 28, 36 and 45 is...

- (i) 869
- (ii) 859
- (iii) 4320
- (iv) 1263

Solution:

The required number = l.c.m. of (21, 28, 36 ,45)+3=1263

43.) If x and y are the two digits f the number 653xy such that this number is divisible by 80, then x+y is equal to:

Options

- (i) 2
- (ii) 3
- (iii) 4
- (iv) 6

Solution:

Since 653xy is divisible by 2 as well as by 5, so $y = 0$

Now 653x0 is divisible by 8 so 3x0 is also divisible by 8.

By hit and trial $x=6$ and $x+y = 6$

44.) _____ is a C file function that can be used to indicate the current position of a stream while reading with a function like fread.

Answer

ftell is the function the function that gives the current position. For example, if fread has read 100 bytes in a string, ftell will give an output of 100 indicating the current position.

45.) Which is the function that can be used to test if a given character (input argument) is a hexadecimal digit?

Answer

Int is x digit (int c) returns a non zero value if c is a hexadecimal digit.

46.) Which is the data structure that is used in UNIX, that stores all essential information like access mode, type etc.?

Answer

inode is the UNIX data structure that is responsible for storing file metadata.

47.) Almost all UNIX operating systems are POSIX compliant. POSIX, as you know, indicates a set of standards for OS vendors to follow which eases the use of cross platform applications on all Operating Systems following POSIX. What is the expansion for POSIX?

Answer

POSIX stands for "Portable Operating System Interface".

48.) Find the missing number in the sequence 2,5,4,7, _

Options

- a) 6
- b) 4
- c) 5
- d) 7

Answer is : 6.

Just consider the sequence 3, 4, 5, 6, 7 and start subtracting and adding 1 to consecutive numbers which will get you the sequence in question.

49.) In an alien planet, the word "lion" is coded as "mhpm". Then how the word "tiger" would be coded as?

Options

- a) uhids
- b) uhhds
- c) uhhfs
- d) uhhfq

Answer is : uhhds.

Reason : First letter in a word would be replaced by the next adjacent letter. Second letter would be replaced by the immediately preceding letter... and so on.

50.) Find the odd man out a) 123 b) 235 c) 135 d) 358

Answer is: 135.

Adding first two digits will give the third digit in all the other three options except option c).

51.) Read the following statements.

"Weather is good in all northern cities of India.

Unlike northern cities, sunny weather exists in most of eastern cities of India.

Warm weather exists in all northern cities and some eastern cities of India."

Considering above statements, which of the following statements is false

- a) Warm weather is considered good.
- b) All eastern cities experience bad weather
- c) Some eastern cities experience good weather

Answer is: b) All eastern cities experience bad weather is false.

This is because, the second statement clearly states that warm (good) weather prevails in some eastern cities.

52.) A bookseller sells a particular novel at 10% discount on the labelled price. Also he is so generous that he gives a free book for every 15 books for wholesale buyers. In this transaction his gain is 35%. Then find the ratio of Ratio of Labelled Price to the actual CP.

Answer :

Lets assume the CP of each book be 100. Hence CP of 16 books would be 1600.

SP of 15 books = $1600 + (1600 * 35/100) = 2160$.

SP of each book would be $2160/15 = 144$.

If SP of each book is 90, labelled price would be 100 (since he gives at a 10% discount).

Hence if SP is 144 marked price would be $144 \times (100/90) = 160$.
Ratio of Labelled Price to the actual CP = $160/100 = 8/5$.

53.) If a pen is being sold at 4% profit instead of 4% loss the actual profit is Rs 16. What is the actual cost price of the pen?

Answer :

Let x be the CP.

$$(104/100)x - (96/100)x = 16$$

Solving we get x = Rs.200.

54.) A cake seller sells one cake at a profit of 10% and sells another at a loss of 5%. Let the ratio of the CPs of the cakes is 2:3 respectively. Find his net profit or loss percentage.

Answer :

Let the CPs of the cakes be 2x and 3x (so that they are in the ratio 2:3 as per the question.)

Hence net CP = 5x.

$$\text{SP of first cake} = (110/100) \times 2x = 220x/100$$

$$\text{SP of second cake} = (95/100) \times 3x = 285x/100$$

$$\text{Net SP} = (220x/100) + (285x/100) = 505x/100 = 5.05x.$$

SP is greater than CP and his profit is $5.05x - 5x = .05x$.

$$\text{His profit percentage} = (.05x/5x)\% = .01\%.$$

55.) Which of the following is an appropriate synonym for the word Debauch?

Options

- a) Demoralize
- b) Encourage
- c) Cultivate

Answer: a) Demoralize

56.) Find the synonym of Deceit?

Options

- a) made up one's mind
- b) disagree
- c) decrease in quantity

Answer: a) made up one's mind

57.) What is an appropriate synonym for Bifid?

Options

- a) Divided
- b) Divided in two
- c) Timid

Answer: a) Divided

58.) Find the antonym for gaurish.

Options

- a) Cheap
- b) Flashy
- c) Costly

Answer: a) Cheap

59.) Choose an appropriate antonym for the word deliberate.

Options

- a) unintended
- b) targeted
- c) focussed

Answer: a) Unintended

60.) Choose the antonym for Sorrow.

Options

- a) Joy
- b) empathy
- c) sympathy

Answer: a) Joy

61.) Which of the following is not true about C Programming?

Options

- a) C provides function oriented programming
- b) C program can be compiled on a C++ compiler

Answer: a) C provides function oriented programming

Explanation: C supports encapsulation is false. Only C++ supports encapsulation

62.) What will be effect of sizeof operator on Unions?

Options

- a) gives the size of the biggest member
- b) gives the size of sum of all members
- c) gives the size of the smallest of the members

Answer: a) gives the size of the biggest member

63.) Divide by Zero is a common exception of type

Options

- a) Run Time
- b) Compile Time
- c) can be either Run time or Compile time

Answer: Run Time

64.) If one-seventh of a number exceeds its eleventh part by 100 then the number is...

Options

- (i) 770
- (ii) 1100
- (iii) 1825
- (iv) 1925

Answer: (iv) 1925

Solution: Let the number be x . Then $\frac{x}{7} - \frac{x}{11} = 100$ $11x - 7x = 7700$ $x = 1925$.

65.) The ratio of Rita's age to her mother's age is 3:8. The difference of their ages is 35 years. The ratio of their ages after 4 years will be:

Options

- (i) 7:12
- (ii) 5:12
- (iii) 38:43
- (iv) 42:47

Answer: (ii) 5:12

Solution:

Let their ages be $3x$ and $8x$

$$8x - 3x = 35$$

$$x = 7$$

Their present ages are 21 and 56 years.

Ratio of their ages after 4 years are $25:60 = 5:12$

66.) A tap can fill the tank in 15 minutes and another can empty it in 8 minutes. If the tank is already half full and both the taps are opened together, the tank will be:

Options

- (i) filled in 12 min
- (ii) emptied in 12 min
- (iii) filled in 8 min
- (iv) emptied in 8 min

Answer: 8 minutes

Solution:

Rate of waste pipe being more the tank will be emptied when both taps are opened.

$$\text{Net emptying work done in 1 min} = \left(\frac{1}{8} - \frac{1}{16}\right) = \frac{1}{16}$$

So full tank will be emptied in 16 min

Half tank will be emptied in 8 minutes

67.) A man can row 5 kmph in still water. If the river is running at 1 kmph, it takes him 75 minutes to row to a place and back. How far is the place?

Options

- (i) 3km

- (ii) 2.5 km
- (iii) 4 km
- (iv) 5 km

Answer: 3 Km

Solution:

Speed downstream = $(5+1)\text{km/hr} = 6\text{ km/hr}$ Speed upstream = $(5-1)\text{km/hr} = 4\text{ km/hr}$ Let the required distance be $x\text{ km}$
 $\frac{x}{6} + \frac{x}{4} = \frac{75}{60}$
 $2x+3x = 15$
 $x = 3\text{km}$

68.) 729 ml of a mixture contains milk and water in ratio 7:2. How much of the water is to be added to get a new mixture containing half milk and half water?

Options

- (i) 79 ml
- (ii) 81 ml
- (iii) 72 ml
- (iv) 91 ml

Answer: 81 ml

Solution:

Milk = $(729 * \frac{7}{9}) = 567\text{ml}$

Water = $(729-567) = 162\text{ml}$

Let water to be added be $x\text{ ml}$
 $\frac{567}{162+x} = \frac{7}{3}$
 $1701 = 1134 + 7x$
 $x = 81\text{ml}$

69.) If $\log 0.317 = 0.3332$ and $\log 0.318 = 0.3364$ then find $\log 0.319$?

Options

- (i) 0.3396
- (ii) 0.3369
- (iii) 0.3368
- (iv) 0.3338

Answer: 0.3396

Solution:

$\log 0.317 = 0.3332$ and $\log 0.318 = 0.3364$, then $\log 0.319 = \log 0.318 + (\log(0.318 - 0.317)) = 0.3396$

70.) A box of 150 packets consists of 1kg packets and 2kg packets. Total weight of box is 264kg. How many 2kg packets are there?

Options

- (i) 36
- (ii) 114
- (iii) 120
- (iv) 50

Answer: 114

Solution:

$x = 2\text{ kg Packs}$

$y = 1\text{ kg packs}$

$x + y = 150$ Eqn 1 Solve the Simultaneous equation; $x = 114$

$$2x + y = 264 \quad \dots\dots\dots \text{Eqn 2} \quad \text{so, } y = 36$$

ANS : Number of 2 kg Packs = 114.

71.) In a hotel, rooms are numbered from 101 to 550. A room is chosen at random. What is the probability that room number starts with 1, 2 or 3 and ends with 4, 5 or 6?

Answer

There are total 450 rooms.

Out of which 299 room number starts with either 1, 2 or 3. (as room number 100 is not there) Now out of those 299 rooms only 90 room numbers end with 4, 5 or 6. So the probability is $90/450$ i.e. $1/5$ or 0.20.

72.) What is the four-digit number in which the first digit is $1/3$ of the second, the third is the sum of the first and second, and the last is three times the second?

Answer

The 4 digit number is 1349.

73.) Difference between Bholu's and Molu's age is 2 years and the difference between Molu's and Kolu's age is 5 years. What is the maximum possible value of the sum of the difference in their ages, taken two at a time?

Answer

The maximum possible value of the sum of the difference in their ages - taken two at a time - is 14 years.

74.) A 3 digit number is such that its unit digit is equal to the product of the other two digits which are prime. Also, the difference between its reverse and itself is 396. What is the sum of the three digits?

Answer

The required number is 236 and the sum is 11.

75.) Pepsi, Fanta, Cola order either coffee or tea after dinner. a) If Pepsi orders coffee, Fanta orders the drink that is ordered by Cola. b) If Fanta orders coffee, Pepsi does not order the drink that is ordered by Cola. c) If Cola orders tea, Pepsi orders the same drink ordered by Fanta. Who takes the same drink every day?

Ans: Pepsi.

76.) Boat A leaves shore P and Boat B leaves shore Q. (P and Q are opposite shores of a river.) A and B travel at constant speed. But the speeds are not same. Both boats meet at 600m from P for the first time. In their return journeys (i.e. after touching the shores), they meet again at 200m from Q. Find distance between P and Q.

Ans: 1600m

77.) There are two glasses A and B. A contains orange juice and B contains apple juice in same quantity. Some amount of orange juice from glass A is transferred to glass B. The juice in glass B is mixed well. Then again the same amount of juice from B is transferred to A. Compare the quantities of apple juice in A and orange juice in B.

Ans: Equal.

78.) 100 Kg. Potatoes with 98% water content are dried in an oven. The percentage of water decreases to 50 %. What is the weight of potatoes now?

Ans: 4Kg.

79.) A 31" x 31" square metal plate needs to be fixed by a carpenter on to a wooden board. The carpenter uses nails all along the edges of the square such that there are 32 nails on each side of the square. Each nail is at the same distance from the neighbouring nails. How many nails does the carpenter use?

Solution: $32 \times 2 + 30 \times 2 = 124$

80.) It was vacation time, and so I decided to visit my cousin's home. What a grand time we had! In the mornings, we both would go for a jog. The evenings were spent on the tennis court. Tiring as these activities were, we could manage only one per day, i.e., either we went for a jog or played tennis each day. There were days when we felt lazy and stayed home all day long. Now, there were 12 mornings when we did nothing, 18 evenings when we stayed at home, and a total of 14 days when we jogged or played tennis. For how many days did I stay at my cousin's place?

Solution :

Use sets and venn diagram to solve such questions. a, b ,a**∩**b, a**∪**b etc

12=tennis+leave

18=jog+leave

so jog-tennis=6

again jog+tennis=14. so solve and get jog=10,leave=8,tennis=4. so tot=22

81.) Glenn and Jason each have a collection of cricket balls. Glenn said that if Jason would give him 2 of his balls they would have an equal number; but, if Glenn would give Jason 2 of his balls, Jason would have 2 times as many balls as Glenn. How many balls does Jason have?

Solution: R 14

1. $G+2=j-2$

2. $2(G-2)=J+2$.

solve these 2 to get

J=14

82.) How many even integers n, where, are divisible neither by seven nor by nine?

Solution:

There are 101 integers in all, of which 51 are even. From 100 to 200, there are 14 multiples of 7, of which 7 are even. There are 11 multiples of 9, of which 6 are even. But there is one integer (i.e. 126) that is a multiple of both 7 and 9 and also even. Hence the answer is $(51 - 7 - 6 + 1) = 39$

83.) Four persons A, B, C and D are playing cards. Each person has one card, laid down on the table below him, which has two different colours on either side. No card has the same color on both sides. The colours visible on the table are Red,

Green, Red and Blue respectively. They see the color on the reverse side and give the following comment.

Option

A: Yellow or Green

B: Neither Blue nor Green

C: Blue or Yellow

D: Blue or Yellow

Given that out of the 4 people 2 always lie find out the colours on the cards each person.

ANSWER:

Try all possible combinations. Keep in mind two things. THE combination obtained should satisfy the conditions

1. Two are lying and two are telling the truth

2. Neither two cards are similar nor are two sides of a card are of same color

A	YELLOW
B	YELLOW
C	GREEN
D	RED

84.) Four tourists A,B,C,D and four languages English, German, French and Italian.

They are not able to converse among themselves in one language. Though A does not know English he can act as an interpreter between B and C. No one spoke both French and German. A knows German and was able to converse with D who doesn't know a word in German. Only one language was spoken by more than two persons. Each spoke two languages. Find who spoke what.

ANSWER:

A	B	C	D
GERMAN	FRENCH	GERMAN	ITALIAN
ITALIAN	ITALIAN	ENGLISH	ENGLISH

85.) Grass in lawn grows equally thick and in a uniform rate. It takes 40 days for 40 cows and 60 days for 30 cows to eat the whole of the grass. How many days does it take for 20 cows to do the same?

ANSWER:

g - grass at the beginning

r - rate at which grass grows, per day

y - rate at which one cow eats grass, per day

n - no of cows to eat the grass in 96 days

$g + 40*r = 40 * 40 * y$ ----- 1

$g + 60*r = 30 * 60 * y$ ----- 2

$g + n*r = 20 * n * y$ ----- 3

from 1 and 2

$r = 10y$ $g = 120r$

from 3

$nr = 120r$

Solving, $n = 120$

86.) Lucia is a wonderful grandmother. Her age is between 50 and 70. Each of her sons has

as many sons as they have brothers. Their combined number gives Lucia's age. What is the age?

ANSWER

Let the no. of Lucia's sons = n
No. of brothers for each son = $n-1$
No. of sons for each of Lucia's son = $n-1$
Lucia's age = $n-1 * n-1$
= a perfect square between 50 and 70
= 64

87.) Gold is 19 times as heavy as water and copper is 9 times as heavy as water. In what ratio should these be mixed to get an alloy 15 times as heavy as water?

Options

- (i) 1:1
- (ii) 2:3
- (iii) 1:2
- (iv) 3:2

Solution:

Let 1gm of gold be mixed with x gm of copper to give $(1+x)$ gm of the alloy.
 $1G=19W$, $1C = 9W$ and alloy = $15W$ 1gm gold + x

88.) What is not a part of OS?

Options

- a)swapper
- b)compiler
- c)device driver
- d)file system

Answer is compiler

89.) Which is the protocol used by PING?

Options

- a)ICMP
- b)HTTP
- c)SMTP
- d)RTSP

Answer is ICMP

90.) Hotmail was founded by?

Options

- a)Sabeer Bhatia and Jack Smith
- b)Sabeer Bhatia alone
- c)Sabeer Bhatia and Bill Gates
- d)Sabeer Bhatia and Hang Sen

Answer is Sabeer Bhatia and Jack Smith

91.) Which is an Internet standard that extends the format of e-mail to support

- * non ASCII text
- * Non-text attachments
- * Message bodies with multiple parts
- * Header information in non-ASCII character sets

Options

- a) Multipurpose Internet Mail Extensions
- b) Multivariant Internet Mail Extensions
- c) Multi Internet Mail Extensions
- d) None of the above

Answer is Multipurpose Internet Mail Extensions

92.) An application program that is used by the users to get the information from the backend of some application like databases.

Options

- a) application server
- b) database server
- c) proxy server
- d) mail server

Answer is database server

93.) Why is the synchronize used?

Option

- a) to initialize multiple objects
- b) to lock an object
- c) to release an object

Answer is to lock an object

94.) IRC stands for

Options

- a) Intranet Relay chat
- b) Internet Relay chat
- c) Intranet subnet Relay chat

Answer is Internet Relay chat

95.) VPN stands for

Option

- a) Virtual private network
- b) Virtual public network
- c) Virtual path network

Answer is Virtual private network

96.) A person with some money spends $\frac{1}{3}$ for cloths, $\frac{1}{5}$ of the remaining for food and $\frac{1}{4}$ of the remaining for travel. He is left with Rs 100/- How much did he have with him in the beginning?

Ans: Rs. 250/-

97.) Grass in lawn grows equally thick and in a uniform rate. It takes 24 days for 70 cows and 60 days for 30 cows to eat the whole of the grass. How many cows are needed to eat the grass in 96 days?

Ans: 20 cows

98.) There is a safe with a 5 digit number as the key. The 4th digit is 4 greater than the second digit, while the 3rd digit is 3 less than the 2nd digit. The 1st digit is thrice the last digit. There are 3 pairs whose sum is 11. Find the number.

Ans: 65292

99.) Consider a number 235, where last digit is the sum of first two digits i.e. $2 + 3 = 5$. How many such 3-digit numbers are there?

Ans: There are 45 different 3-digit numbers.

100.) There are 4 parties A,B,C,D. Ram told that either A or B will win. Shyam told C will never win. Hari told either B or C or D will win. Only one of them was Correct. Which party won?

Ans: C

101.) A clock takes 33 seconds to complete the pendulum sound when it is 12:00 noon. How long one can hear the pendulum sound it is 6:00 a.m. i.e. the difference between 1st sound and last sound.

Ans: 15 Secs

102.) There are 111 players participating in a singles tennis tournament. The player who is losing will be out of the tournament. For each and every match, One new ball is taken. Find the no. of balls required for the entire tournament.

Ans: 110

103.) I have got some money in my bag. (Which is stolen after shopping I and II)? I spent 10% of my money for shopping (I) For second time, 10% of the remaining money is spent for shopping (II) The total bill amount=Rs.18. Find the amount which will be remaining in the bag?

Ans: Rs.81

104.) Three cards are drawn at random from an ordinary pack of cards. Find the probability that they will consist of a king, a queen and an ace.

Ans: 64/2210.

105.) A number of cats got together and decided to kill between them 999919 mice. Every cat killed an equal number of mice. Each cat killed more mice than there were cats. How many cats do you think there were?

Ans. 991.

106.) If $\log_2 x - 5 \log x + 6 = 0$, then what would the value / values of x be?

Ans. $x = e^2$ or e^3 .

107.) The square of a two digit number is divided by half the number. After 36 is added to the quotient, this sum is then divided by 2. The digits of the resulting number are the same as those in the original number, but they are in reverse order. The ten's place of the original number is equal to twice the difference between its digits. What is the number?

Ans. 46

108.) Mr. Shah decided to walk down the escalator of a tube station. He found that if he walks down 26 steps, he requires 30 seconds to reach the bottom. However, if he steps down 34 stairs he would only require 18 seconds to get to the bottom. If the time is measured from the moment the top step begins to descend to the time he steps off the last step at the bottom, find out the height of the stair way in steps?

Ans. 46 steps.

109.) The average age of 10 members of a committee is the same as it was 4 years ago, because an old member has been replaced by a young member. Find how much younger is the new member?

Ans. 40 years

110.) ABCE is an isosceles trapezoid and ACDE is a rectangle. $AB = 10$ and $EC = 20$. What is the length of AE?

Ans. $AE = 10$.

111.) In the given figure, PA and PB are tangents to the circle at A and B respectively and the chord BC is parallel to tangent PA. If $AC = 6$ cm, and length of the tangent AP is 9 cm, then what is the length of the chord BC?

Ans. $BC = 4$ cm.

118.) Find the Missing Number 1, 5, 13, 25, ?

Options

a) 41

b) 44

c) 23

Answer is 41

119.) Find the odd man out 3, 5, 7, 12, 13, 17, 19

Options

- a)7
- b)12
- c)17

Answer is 12

120.) Find the Missing Number 6, 24, 60, 120, 210, ?

Options

- a)331
- b)336
- c)333

Answer is 336

121.) Find the Missing Number 1, 2, 4, 10, 16, 40, 64 (Successive terms are related)

Options

- a)100
- b)200
- c)90

Answer is 200

122.) Two people enter a race in which you run to a point and back. Person A runs 20 mph to and from the point. Person B runs to the point going 10 mph and 30 mph going back. Who came in first?

Answer: Person A came in first.

123.) Mark ate half of a pizza on Monday. He ate half of what was left on Tuesday and so on. He followed this pattern for one week. How much of the pizza would he have eaten during the week?

Answer: Mark would have ate $127/128$ (99.22%) of the pizza during the week.

124.) In the General meeting of "Friends Club", Sameer said, "The repairs to the Club will come to a total of Rs 3120 and I propose that this amount should be met by the members, each paying an equal amount." The proposal was immediately agreed. However, four members of the Club chose to resign, leaving the remaining members to pay an extra Rs. 26 each. How many members did the Club originally have?

Answer: The Club originally had 24 members.

125.) If you look at a clock and the time is 3:15. What is the angle between the hour and the minute hands? (The answer to this is not zero!)

Answer: 7.5 degrees.

126.) Mrs. Watsurface had a garage sale. A customer named Gina bought an old lamp and a rug. She paid a total of \$5.25 for everything. The rug cost 25 cents more than the lamp. How much did each cost?

Answer: The lamp cost \$ 2.50 and the rug cost \$ 2.75

127.) SlowRun Express runs between Bangalore and Mumbai, For the up as well as the down journey, the train leaves the starting station at 10:00 PM everyday and reaches the destination at 11:30 PM after three days. Mr. Haani once travelled by SlowRun Express from Mumbai to Bangalore. How many SlowRun Express did he cross during his journey?

Answer: Mr. Haani crossed 7 SlowRun Expresses during his journey.

128.) In a certain year, the number of girls who graduated from City High School was twice the number of boys. If $\frac{3}{4}$ of the girls and $\frac{5}{6}$ of the boys went to college immediately after graduation, what fraction of the graduates that year went to college immediately after graduation?

Answer

Assume that number of boys graduated from City High School = B

Therefore, number of girls graduated from City High School = $2*B$

It is given that $\frac{3}{4}$ of the girls and $\frac{5}{6}$ of the boys went to college immediately after graduation.

Hence, total students went to college

$$= (\frac{3}{4})(2*B) + (\frac{5}{6})(B)$$

$$= B * (\frac{3}{2} + \frac{5}{6})$$

$$= (\frac{7}{3})B$$

Fraction of the graduates that year went to college immediately after graduation

$$= [(\frac{7}{3})B] / [3*B]$$

$$= \frac{7}{9}$$

Therefore, the answer is $\frac{7}{9}$

129.) A mule and a donkey were carrying full sacks on their backs. The mule started complaining that his load was too heavy. The donkey said to him "Why are you complaining? If you gave me one of your sacks I'd have double what you have and if I give you one of my sacks we'd have an even amount." How many sacks was each of them carrying? Give the minimal possible answer.

Answer: The mule was carrying 5 sacks and the donkey was carrying 7 sacks.

130.) There are 6561 balls out of them 1 is heavy. Find the min. no. of times the balls have to be weighed for finding out the heavy ball?

Ans. 8

131.) If i walk with 30 miles/hr i reach 1 hour before and if i walk with 20 miles/hr i reach 1 hour late. Find the distance between 2 points and the exact time of reaching destination is 11 am then find the speed with which it walks.

Ans: 120miles and 24 miles/hr

132.) No. of animals is 11 more than the no. of birds. If the no. of birds were the no. of animals and no. of animals were the no. of birds (i.e., interchanging no's of animals and birds.), the total no. of legs get reduced by one fifth ($\frac{1}{5}$). How many no. of birds and animals were there?

Ans: birds: 11, animals: 22

133.) Complete the series: 5, 20, 24, 6, 2, 8,..?

Ans: 12

(as $5*4=20$, $20+4=24$, $24/4=6$, $6-4=2$, $2*4=8$, $8+4=12$).

134.) Which one of the following conditions must p, q and r satisfy so that the following system of linear simultaneous equations has at least one solution, such that $p + q + r \neq 0$?

$$x + 2y - 3z = p$$

$$2x + 6y - 11z = q$$

$$x - 2y + 7z = r$$

Options

a) $5p - 2q - r = 0$

b) $5p + 2q + r = 0$

c) $5p + 2q - r = 0$

d) $5p - 2q + r = 0$

Solution:

It is given that , if we consider the first option, and multiply the first equation by 5, second by -2 and third by -1 , we see that the coefficients of x, y and z all add up-to zero.

Thus, $5p - 2q - r = 0$. No other option satisfies this.

135.) In a 4000 meter race around a circular stadium having a circumference of 1000 meters, the fastest runner and the slowest runner reach the same point at the end of the 5th minute, for the first time after the start of the race. All the runners have the same starting point and each runner maintains a uniform speed throughout the race. If the fastest runner runs at twice the speed of the slowest runner, what is the time taken by the fastest runner to finish the race?

Options

a) 20 min

b) 15 min

c) 10 min

d) 5 min

Solution:

The ratio of the speeds of the fastest and the slowest runners is $2 : 1$. Hence they should meet at only one point on the circumference i.e. the starting point (As the difference in the ratio in reduced form is 1). For the two of them to meet for the first time, the faster should have completed one complete round over the slower one. Since the two of them meet for the first time after 5 min, the faster one should have completed 2 rounds (i.e. 2000 m) and the slower one should have completed 1 round. (i.e. 1000 m) in this time. Thus, the faster

one would complete the race (i.e. 4000 m) in 10 min.

136.) Dealer sold a radio at a loss of 2.5 %. Had he sold for Rs. 100 more, he would have gained 7 %. In order to gain 12 %, he should sell it for:

Options

- a) 850
- b) 1080
- c) 925
- d) 1120

Solution:

Let c.p be c

let s.p be s

$$s = 0.975c$$

Had he sold for Rs. 100 more, he would have gained 7 %

$$(100 + 0.975c - c) / c * 100 = 7$$

$$(100 - 0.025c) * 100 = 7c$$

$$10000 - 2.5c = 7c$$

$$c = 1000$$

The answer should be 1120.

137.) At the end of the year 1998, Shepherd bought nine dozen goats. Henceforth, every year he had P% of goat at the beginning of the year and sold q% at the end of the year where $p > 0$ and $q > 0$. If the shepherd had nine dozen goat at end of the year 2002, after making the sales for the year, which of the following is true??

Options

- a) $p = q$
- b) $p > q$
- c) $p < q$
- d) $p = q/2$

Solution:

The number of goats remain the same. If the percentage that is added every time is equal to the percentage that is sold, then there should be a net decrease. The same will be the case if the percentage added is less than the percentage sold. The only way, the number of goats will remain the same is if $p > q$.

138.) Who among the following won the men's singles title of the French Open 2004?

Options

- (a) Guillermo Coria
- (b) Roger Federer
- (c) Andy Roddick
- (d) Gaston Gaudio

Ans: Gaston Gaudio

139.) The Lingaraja Temple built during the medieval period is at

Options

- (a) Bhubaneswar
- (b) Khajuraho
- (c) Madurai
- (d) Mount Abu

Ans: Bhubaneswar

140.) During the Mughal period, which one of the following were the first to come to India as traders?

Options

- (a) Portuguese
- (b) Dutch
- (c) Danish
- (d) English

Ans: Portuguese

141.) Who among the following Delhi Sultans is known for introducing market control mechanism?

Options

- (a) Iltutmish
- (b) Balban
- (c) Alauddin Khalji
- (d) Firoze Tughlaq

Ans: Alauddin Khalji

142.) Which of the following cricketers holds the world record of maximum number of sixes in Tests?

Options

- (a) Chris Carins (New Zealand)
- (b) Viv Richards (West Indies)
- (c) Sachin Tendulkar (India)
- (d) Wasim Akram (Pakistan)

Ans: Chris Carins (New Zealand)

143.) Who among the following has been appointed the new Chief Justice of India?

Options

- (a) Justice Rajendra Babu
- (b) Justice V. N. Khare
- (c) Justice R. C. Lahoti
- (d) None of these

Ans: Justice R. C. Lahoti

144.) Who among the following sports persons got the honour of lighting the Olympic flame at the Major Dhyan Chand Stadium in New Delhi recently?

Options

- (a) Anjali Bhagwat
- (b) Abhinav Bindra
- (c) Viswanathan Anand
- (d) K. M. Beenamol

Ans: Anjali Bhagwat

145.) Who among the following has been appointed new chairman of the National Commission for Farmers?

Options

- (a) Ajit Singh
- (b) K. C. Pant
- (c) Dr. M. S. Swaminathan
- (d) Sharad Pawar

Ans: Dr. M. S. Swaminathan

146.) A boy walks 40 km north and then walks 50km towards east. Then turns right and walks 30km and then turns right and walks 50km. Now what is the distance between this point and the starting place?

Answer is 10km

147.) A boy walks some distance towards north and then turns right, walks some distance. After walking some time he turns left and walks some distance and then walks some distance and then he walks at an angle of 45 degree towards right and then turns to his left and walks. Towards Which direction was he walking finally?

Answer is North-west

148.) A man walks 10km towards west. Then which of the combinations will take him to the original starting position?

Options

- a) left, left, right
- b) left, right, right
- c) right, left, right
- d) right, right, right

Answer is right, right, right

149.) My flight takes off at 2am from a place at 18°N 10°E and landed 10 Hrs later at a place with coordinates 36°N 70°W. What is the local time when my plane landed?

Options

- a) 6:00 am

- b) 6:40 am
- c) 7:40 am
- d) 7:00 am
- e) 8:00 am

Answer is

The destination place is 80 degree west to the starting place. Hence the time difference between these two places is 5 hour 20 min. ($=24\text{hr} \times 80/360$).

When the flight landed, the time at the starting place is 12 noon (2 AM + 10 hours).

Hence, the time at the destination place is 12 noon - 5:20 hours = 6: 40 AM

150.) Who among the following has been appointed the National Security Adviser by the UPA Government?

Options

- a) Brajesh Mishra
- b) J. N. Daxit
- c) Soli J. Sorabjee
- d) T. K. A. Nair

Answer is J. N. Daxit

151.) Who among the following has won the Miss Universe 2004 crown?

Options

- a) Jennifer Hawkins
- b) Shandi Finnessey
- c) Alba Reyes
- d) None of these

Answer is Jennifer Hawkins

152.) A solemn ceremony to mark the 60th Anniversary of D-Day landings of the Allies troops during the Second World War, was held in

Options

- a) Pearl Harbour
- b) Normandy
- c) New York
- d) Lisbon

Answer is Normandy

153.) Which of the following planets crossed the face of the sun (in transit) after 122 years recently?

Options

- a) Mars
- b) Venus
- c) Jupiter
- d) Saturn

Answer is Venus

154.) A contractor agreeing to finish a work in 150 days, employed 75 men each working 8 hours daily. After 90 days, only $\frac{2}{7}$ of the work was completed. Increasing the number of men by

Options

- a) 150 mens
- b) 200 mens
- c) 100 mens

Answer is 150 mens

155.) A dishonest shopkeeper professes to sell pulses at the cost price, but he uses a false weight of 950gm. for a kg. His gain is?

Options

- a) 6.2%
- b) 5.3%
- c) 3.9%

Answer is 5.3%

156.) A student divided a number by $\frac{2}{3}$ when he required to multiply by $\frac{3}{2}$. Calculate the percentage of error in his result.

Options

- a) 0%
- b) 2%
- c) 1%

Answer is 0%

157.) What is the sum of the first 25 natural odd numbers?

Options

- a) 575
- b) 600
- c) 625

Answer is 625

158.) It was calculated that 75 men could complete a piece of work in 20 days. When work was scheduled to commence, it was found necessary to send 25 men to another project. How much longer will it take to complete the work?

Options

- a) 27 days
- b) 30 days
- c) 25 days

Answer is 30 days

159.) Five boys were climbing a hill. J was following H. R was just ahead of G. K was between G & H. They were climbing up in a column. Who was the second?

Options

- a)R
- b)K
- c)G
- d)H
- e)J

Answer is G

160.) Five farmers have 7, 9, 11, 13 & 14 apple trees, respectively in their orchards. Last year, each of them discovered that every tree in their own orchard bore exactly the same number of apples. Further, if the third farmer gives one apple to the first, and the fifth gives three to each of the second and the fourth, they would all have exactly the same number of apples. What were the yields per tree in the orchards of the third and fourth farmers?

Options

- a)13 & 9 apples per tree.
- b)11 & 10 apples per tree.
- c)11 & 9 apples per tree.

Answer is 11 & 9 apples per tree.

161.) A man bought a horse and a cart. If he sold the horse at 10 % loss and the cart at 20 % gain, he would not lose anything; but if he sold the horse at 5% loss and the cart at 5% gain, he would lose Rs. 10 in the bargain. The amount paid by him was Rs?

Options

- a) Cost price of horse = Rs. 100 & the cost price of cart = 200.
- b) Cost price of horse = Rs. 400 & the cost price of cart = 200.
- c) Cost price of horse = Rs. 500 & the cost price of cart = 300.

Answer is Cost price of horse = Rs. 400 & the cost price of cart = 200.

162.) A building with height D shadows up to G. A Neighbour building with what height shadows C feet.

Options

- a) CD/G
- b) C/DG
- c) CG/G
- d) DG/C

Answer is CD/G

163.) A person was fined for exceeding the speed limit by 10mph. Another person was also fined for exceeding the speed limit by twice the same. If the second person was travelling at speed of 35mph. find the speed limit?

Options

- a) 25 mph
- b) 15 mph
- c) 28 mph

Answer is 15 mph

164.) A bus started from the bus stand at 8 Am and after staying 30 minutes at a destination return back to the bus stand. The Destination is 27 miles from the busstand. The Speed of the bus is 18mph. In the return journey the bus travels with 50% fast speed. At what time it is return to the bus stand?

Options

- a) 1.30 p.m.
- b) 1.45 p.m.
- c) 1.00 p.m.

Answer is 1.00 p.m.

165.) Two lemons cost 10 cents. Then one and a half dozen cost

Options

- a) 60 cents
- b) 55 cents
- c) 90 cents

Answer is 90 cents

166.) A car is filled with 4.5 gallons of fuel for a round trip. Car is taken $\frac{1}{4}$ more than in going than coming up. What is the fuel consumed in coming up?

Options

- a) 2.5 gallon
- b) 2.25 gallon
- c) 2.0 gallon

Answer is 2.0 gallon

167.) A work is done by two people in 24 minutes. One of them alone can do it in 40 minutes. How much time will the other person will take to complete it?

Options

- a) 45 min
- b) 50 min
- c) 60 min

Answer is 60 min

168.) Low temperature at the night in a city is more than $\frac{1}{2}$ high as higher temperature is 100. Then what is low temperature?

Options

- a) 40 degree
- b) 29 degree
- c) 35 degree

Answer is 40 degree

169.) A sales person multiplied by a number and gets the answer 3. Instead of that number divided by What is the answer she actually has to get?

Options

- a) $\frac{1}{5}$
- b) $\frac{1}{3}$
- c) $\frac{1}{4}$

Answer is $\frac{1}{3}$

170.) Sister's age is twice than that of the brother. If the brother's age is six, what is the sister's age after two years?

Options

- a) 12 yrs
- b) 13 yrs
- c) 14 yrs

Answer is 14 yrs

171.) If a train covers 600m in 0.5 seconds, how long it will cover in 10 seconds?

Options

- a) 6000m
- b) 3000 m
- c) 4500 m

Answer is 3000 m

172.) Y catches 5 times more fishes than X. If total number of fishes caught by X and Y is 48, then number of fishes caught by X?

Options

- a) 8
- b) 10
- c) 6

Answer is 8

173.) One dollar is saved in one month. Then how much dollar is saved in one day?

Options

- a) $\frac{1}{40} = 0.025\$$
- b) $\frac{1}{30} = 0.0333\$$

c) $\frac{1}{25} = 0.0444\%$

Answer is $\frac{1}{30} = 0.0333\%$

174.) Ashok got thrice as many sums wrong as he got right. If he attempted 60 sums in all, how many sums did he solved correctly?

Options

- a) 20
- b) 12
- c) 15
- d) 10

Answer : c) 15

Solution :

Let the number of answers got correct by Ashok be X and the number of wrong answers be $3X$.

Since he attempted 60 sums, $X + 3X = 60$

$$4X = 60$$

$$X = 15$$

So, Ashok had solved 15 sums correctly.

175.) In an examination, there are 100 questions, 4 marks for each correct answer and 2 marks for each wrong answer. If Surya attempted all the 100 questions and scored 40 marks. Find the number of questions he answered wrongly?

Options

- a) 30
- b) 40
- c) 70
- d) 60

Answer : d) 60

Solution :

Let the number of questions Surya answered correctly be X and the number of questions that Surya answered wrongly be $100 - X$. (so that the total number of answered questions is 100)

Marks scored by him is 40.

Given that 4 marks for each correct answer and 2 marks for each wrong answer , i.e $4X - 2(100 - X) = 40$

$$6X = 240$$

$$X = 40$$

Hence, Surya answered 60 questions wrongly.

176.) In an Entrance examination, a multiple choice question has 5 options. If Rohit chooses the correct option, he earns 4 marks and for choosing the wrong option incurs negative marks. If Rohit chooses an option randomly, his expected score is 0. Suppose Rohit has successfully eliminated 3 incorrect options. What will be the expected score if he chooses randomly among the remaining options ?

Options

- a) 1
- b) $\frac{2}{3}$
- c) $\frac{3}{2}$
- d) 0

Answer : c) $\frac{3}{2}$

Solution :

Given that Rohit can get 4 marks for each correct answer.

Let the marks for a wrong answer be X.

Probability of getting correct answer = $\frac{1}{5}$ and Probability of getting wrong answer = $\frac{4}{5}$.

Given that on selecting randomly, Rohit's expected score is 0. Putting this in the form of a formula :

His Expected Score = 0 = (Probability of getting correct answer) x (score for correct answer) + (Probability of getting wrong answer) x (score for wrong answer)

i.e. $(\frac{1}{5}) \times 4 + (\frac{4}{5}) \times X = 0$

$X = -1$ = Score for wrong answer.

If Rohit had eliminated 3 wrong options, then the Probability of getting correct answer is $\frac{1}{2}$ and probability of getting wrong answer is $\frac{1}{2}$.

Then his expected score is $\frac{1}{2} \times (-1) + \frac{1}{2} \times 4 = \frac{3}{2}$.

177.) Six persons namely Raj, Dinesh, Vijay, Aravind, Vivek and Praveen are standing in a queue to get a train ticket in a railway station. Raj is standing between Vivek and Praveen. Praveen is ahead of Dinesh and Vivek is standing behind Aravind. Vijay is standing behind Dinesh. Due to closing time at the ticket counter, they will give tickets only to the first four persons. Who will not get the tickets?

Options

- a) Dinesh and Vivek
- b) Praveen and Vivek
- c) Dinesh and Vijay
- d) Praveen and Vijay

Answer : c) Dinesh and Vijay

Solution :

Going by the data in the question, the resulting arrangement will be :

Aravind Vivek Raj Praveen Dinesh Vijay.

Since the first four person will only get the tickets, Dinesh and Vijay will not get the tickets.

178.) In a conference hall 60 members are seated in a row where women are twice that of men. If Naveen is seated seventeenth from the top and if there are 9 women are seated before Naveen, then how many men are seated after him?

Options

- a) 12
- b) 17
- c) 8
- d) 9

Answer : a) 12

Solution :

Given that number of men = 2 * (number of women)

Let the number of men be X and the number of women be 2X.

Then $X + 2X = 60$

$X = 20$

i.e., Number of men seated = $X = 20$ and number of women seated = $2X = 40$.

Number of persons seated after Naveen = $60 - 17 = 43 \rightarrow \text{eq (1)}$

Its given in the question that, Number of women seated before Naveen = 9

Then, Number of women seated after Naveen = Total number of women - 9 = $40 - 9 = 31$ -> eq (2)

Number of men seated after Naveen = Number of persons seated after Naveen - Number of women seated after Naveen

From eq (1), Number of persons seated after Naveen = 43 and

From eq (2), Number of women seated after Naveen = 31

Therefore Number of men seated after Naveen = $43 - 31 = 12$

179.) In a one day cricket match between India and Australia, India wins the match due to well played players (Dhoni, Tendulkar, Sehwag, Yuvaraj, Kholi and Raina). Dhoni scored more runs than Raina but not more than Tendulkar. Tendulkar scored less runs than Sehwag and Yuvaraj scored more runs than Sehwag. Kholi scored not more than Raina. Then who will get the man of the match award in that game?

Options

- a) Tendulkar
- b) Sehwag
- c) Yuvaraj
- d) Dhoni

Answer : c) Yuvaraj

Solution :

By the given data, the scores of the players are arranged in descending order as follows

Yuvaraj Sehwag Tendulkar Dhoni Raina Kholi

Therefore, Yuvaraj scored more runs when compared to other players.

So, Yuvaraj will get the man of the match award in that game.

180.) Bala started driving from Chennai at 5pm to reach Bangalore. At 6pm, Siva started driving from Bangalore to reach Chennai. Bala travelled at 40 km/hr and Siva travelled at 50 km/hr. If the distance between Bangalore and Chennai is 310 km, then at what time will they meet?

Options

- a) 9.30pm
- b) 10pm
- c) 9pm
- d) 8.30pm

Answer : c) 9pm

Solution :

Suppose Bala meets Siva X hours after 5pm.

Then Siva meets Bala X - 1 hours after 6pm. (Since he started 1 hour late)

Distance covered by Bala in X hours = $40 \times X$

Distance covered by Siva in X - 1 hours = $50 \times (X - 1)$

Given, Distance between Chennai and Bangalore = 310 km

Hence, $40X + 50(X - 1) = 310$

$90X = 360$

$X = 4$

Hence, Bala will meet Siva after 4 hours.

That is, they will meet at 9pm.

181.) Pandiyan Express and Nellai Express are running in the same direction with speeds of 77 km/hr and 68 km/hr. And the length of Nellai Express is 115 metres and the Pandiyan Express is 135 metres.

Assume Pandiyan Express's engine is just behind the last carriage of Nellai express on parallel tracks (not same track). Now, how much time will be taken by Pandiyan express to cross the Nellai express.

Options

- a) 1 min 10 sec
- b) 1 min 05 sec
- c) 1 min 40 sec
- d) 1 min 25 sec

Answer : c) 1 min 40 sec

Solution :

The Relative Speed of the Nellai Express with respect to Pandiyan Express = $(77 - 68)$ km/hr = 9 km/hr

Relative speed in metres per second = $(9 \times 5/18)$ m/sec = $5/2$ m/sec.

Time taken by Pandiyan Express to cross Nellai Express = Time taken to cover $(115 + 135)$ metres at 10 seconds with the relative speed

= $250/(5/2)$ seconds = 100 seconds. (i.e.) 1 min 40 sec (Using the time = distance / speed formula)

182.) At 8 p.m., Vaigai Express from Madurai and The Chennai Express from Chennai are moving in opposite direction at 40 km/hr and 60 km/hr. At Trichy, they meet each other. If the distance covered by the Chennai Express was 100 km more than the Vaigai Express at Trichy, then the distance between Chennai and Madurai is?

Options

- a) 500 km
- b) 300 km
- c) 200 km
- d) 400 km

Answer : a) 500km

Solution :

Let the distance travelled by Vaigai Express be d.

Then the distance travelled by Chennai Express is $d + 100$.

We know that Time = Distance / Speed.

Since the time travelled by both trains is same, $d / 40 = (d + 100) / 60$.

$20d = 4000$.

$d = 200$.

Therefore, the distance travelled by Vaigai Express is 200 km and the distance travelled by Chennai Express is 300 km.

Hence, the distance between Chennai and Madurai is 500 km.

183.) A train A leaves from Agra at 4.30 a.m. and reaches Delhi at 7.30 a.m. And a train B leaves from Delhi at 6.30 a.m. and reaches Agra at 8.30 a.m. At what time do the two trains cross each other?

Options

- a) 7.06 a.m.
- b) 6.45 a.m.
- c) 7.15 a.m.
- d) 6.54 a.m.

Answer : d) 6.54 a.m.

Solution :

Let the distance between Delhi and Agra be X.

And let the train A meet the train B be Y hours after 6.30 a.m.

Then, train A covers X km in 3hrs and B covers X km in 2hrs. (you can find the durations of travel from the time of start and arrivals of the trains as given in question)

Therefore, Speed of Train A = $X / 3$ km/hr and Speed of Train B = $X / 2$ km/hr

Distance covered by the train A in (Y+2) hrs + Distance covered by the train B in Y hrs = X. (We are using Y + 2 hours in this equation for train A as it has started 2 hours earlier)

$$(X/3) \times (Y+2) + (X/2) \times Y = X$$

$$Y/3 + 2/3 + Y/2 = 1$$

$$5Y = 2$$

$$Y = 2/5 \text{ hr.}$$

$$Y = (2/5) \times 60 \text{ min} = 24 \text{ min.}$$

Hence, the train A meet the train B at 6.54 a.m.

184.) Consider a group of working men. If 1/10th of the workers are absent then work of each person would be increased by.

Option

- a. 20%
- b. 22.22%
- c. 10%
- d. 11.11%

Answer is d. 11.11%

Let us assume 100 units of work is divided among 10 men.

When no one is absent, each member have to do $100/10 = 10$ units of the work

With 1/10th of men absent, there would be 9 men present.

Now, if 100 units of work is to be done by the 9 men present, each should do $100/9$ units of work.

Extra work required from each member when only 9 men are present = $100/9 - 10 = 10/9$ units.

Percentage of increase of work for each member = (Extra work required from each member when only 9 men are present) / (Original amount of work when everyone is present) $\times 100\% = ((10/9)/10) \times 100\% = 11.11\%$

185.) Consider the following statements,

All members of team A are good tall guys with an average height of 6 feet.

Average of the height of members of team B is lesser than that of team A.

Which could be true among the below options.

- a) Every member of team B is shorter than each member of team A.
- b) Few members of team B could be over 6 feet.

Answer is Option b) Few members of team B could be over 6 feet.

Reason : The statement says that there is a possibility that few members of team B can actually be taller than few members of team A.

186.) John is supposed to walk from his house to park every morning. One morning, he is in real hurry and wants to save at least 1/3rd of the time. By how much percentage he should increase his speed.

Option

- a. 100%
- b. 33%
- c. 66%

d. 50%

Answer is d. 50%

Let the distance between his house and park be 100 metres.

Lets assume he takes 30 mins daily. Hence his speed would be $100/30$.

One day, if he wishes to save $1/3$ rd of 30 minutes, that is 10 minutes, he should cover the distance in 20 minutes in which case his speed would be $100/20$.

Required increment in speed = $100/20 - 100/30$

Percentage of increase in speed = $(\text{Required increment in speed} / \text{Original speed}) \times 100 \% = ((100/20 - 100/30) / 100/30) \times 100 \% = 50\%$.

187.) In a college of arts and science 96 students are seated in rows and columns in such a way that the number of students in each row is 50 % more than the number of students in each column. How many students are there in each row?

Options

- a) 7
- b) 9
- c) 12
- d) 11

Answer : c) 12

Reason :

(These kinds of questions can be answered in two ways. Either by applying pure mathematical calculations or by applying pure logic considering the options given. But logical answering may not yield correct answers all the time as some questions may require mathematical solving for accurate answers when options are close to each other.)

In each row there are 50 % more students than that of the columns. This means the number of students in each row should be divisible by 2 (Because 50 % of any number can be found by dividing it by 2.)

Of the given choices c) alone satisfies this condition (As simple as that!)

188.) A secondary school student scored 31 marks in Science, 39 marks in mathematics, 28 marks in Hindi, 26 marks in Social studies and 36 marks in English. The maximum marks a student can score in each subject is 80. How much percentage did the student get in this examination?

Options

- a) 30%
- b) 50%
- c) 40%
- d) 44%

Answer : c). 40%

Reason :

Student's total marks in all the subjects = 160. This is in five subjects.

Each subject carries 80 marks . Total maximum marks = 400

Hence, his percentage in the examination = $(\text{Student's total marks in all the subjects} / \text{Total maximum marks}) \times 100$

$160/400 \times 100 = 40\%$

189.) In a class of certain number of students, Kamal's rank is tenth from the top. Ram is seven ranks below Kamal. Also Ram ranks 30th from bottom. What is the strength of the class.

Option

- a)47
- b)57
- c)28
- d)46

Answer : a). 47

Reason :

Kamal is tenth rank from the top. Ram is seven ranks below Kamal. This means he is 17th rank from the top.

Let the number of students be x.

Ram's rank from bottom = Strength - Ram's Rank from top

$$\text{Or } 30 = x - 17$$

$$\text{Or } x = 47$$

Hence, strength of the class = 47.

190.) In a class of 50 students 26% students play only cricket, 18% students play only badminton, 10% students play only football. 20% students play only badminton and cricket, 12% students play only cricket and football and 8% students play only football and badminton, 6% students play all the three games. Totally how many students play cricket?

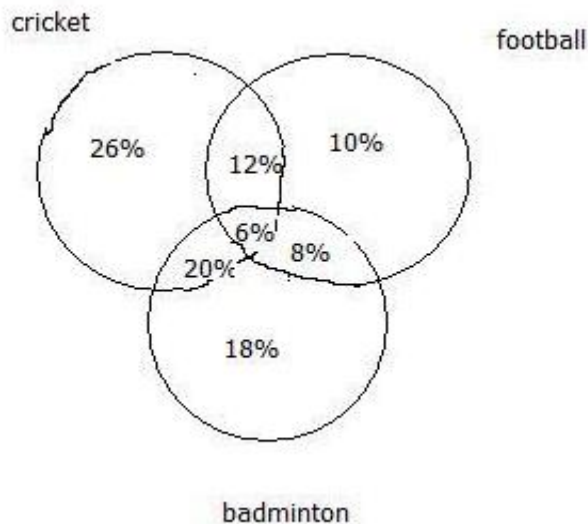
Option

- a)32
- b) 24
- c) 14
- d)12

Answer : a)32

Reason :

Below Venn diagram represents percentage of students playing Cricket, Badminton and Football



You will find cricket is played by

$$26\% + 20\% + 6\% + 12\% = 64\%$$

$$64\% \text{ of } 50 = 50 \times 64/100 = 32.$$