

SNAP 2014

Quantitative Aptitude

1. How many different letter arrangements can be made from the letter of the word EXTRA in such a way that the vowels are always together?

- A** 48
B 60
C 40
D 30

Answer: A

Explanation:

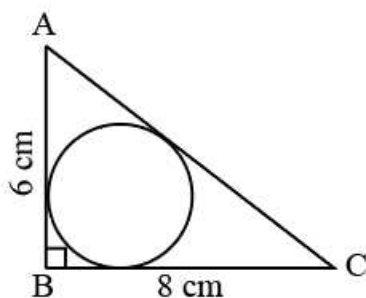
Considering two vowels as one unit ,total number of units = 4

Number of way of arranging these 4 units = $4! = 24$ ways

2 vowels can be internally arranged in $2!$ ways 2 ways

Therefore total number of ways = $24 \times 2 = 48$ ways.

2. The radius of the incircle in the given diagram will be



- A** 1.8 cm
B 2 cm
C 2.5 cm
D 3.6 cm

Answer: B

Explanation:

$$AC = \sqrt{AB^2 + BC^2} = \sqrt{6^2 + 8^2} = 10$$

$$\text{In-radius of right angled triangle} = \frac{(a+b-h)}{2}$$

$$\text{Inradius} = \frac{(6+8-10)}{2} = 2$$

3. If $\tan \theta + \sin \theta = m$ and $\tan \theta - \sin \theta = n$, then the value of $m^2 - n^2$ is equal to

- A** $4mn$
B $2\sqrt{mn}$

- C** $4\sqrt{(mn)}$
- D** $2\sqrt{(m/n)}$

Answer: C

Explanation:

$$m^2 - n^2 = (m + n)(m - n) = (2 \tan \theta)(2 \sin \theta) = 4 \tan \theta \sin \theta$$

Going by the options you have only mn or m/n

Case 1 : mn

$$mn = (\tan \theta + \sin \theta)(\tan \theta - \sin \theta) = \tan^2 \theta - \sin^2 \theta = \frac{\sin^2 \theta}{\cos^2 \theta} - \sin^2 \theta = \sin^2 \theta \left(\frac{1}{\cos^2 \theta} - 1 \right) = \frac{\sin^2 \theta}{\cos^2 \theta} (1 - \cos^2 \theta) = \tan^2 \theta \cdot \sin^2 \theta$$

$$\text{So } 4\sqrt{mn} = 4 \tan \theta \cdot \sin \theta$$

4. If A and B are two mutually exclusive and exhaustive events with $P(B) = 3P(A)$, then what is the value of $P(B)$?

- A** $\frac{3}{4}$
- B** $\frac{1}{4}$
- C** $\frac{1}{3}$
- D** $\frac{2}{3}$

Answer: B

Explanation:

Since P(B) and P(A) are mutually exclusive and exhaustive, thus, P(B)+P(A)=1

But we know that P(B)=3 P(A), thus substituting in the above equation we get P(B)=3/4 and P(A)=1/4

Now they have asked P(B_) i.e. 1-P(B)=1-(3/4)=1/4

5. A and B entered into a partnership investing ₹16,000 and ₹12,000 respectively. After 3 months, A withdrew ₹5000 while B invested ₹5000 more. After 3 more months, C joins the business with a capital of ₹21,000. The share of B exceeds that of C, out of a total profit of ₹26,400 after one year by:

- A** 2400
- B** 3000
- C** 3600
- D** 4800

Answer: C

Explanation:

The profit will be shared based on amount and time the money was invested by person

$$\text{For A : } (16000 \times 3) + (11000 \times 9) = 147,000$$

$$\text{For B : } (12000 \times 3) + (17000 \times 9) = 189,000$$

$$\text{For C : } (21000 \times 6) = 126,000$$

$$\text{Share of B will be } \frac{189}{147+189+126} \times 26400 = 10,800$$

Share of C will be $\frac{126}{147+189+126} \times 26400 = 7,200$

Difference is 3,600

6. An aeroplane takes off 30 minutes later than the scheduled time and in order to reach its destination 1500 km away in time, it has to increase its speed by 250 km/h from its usual speed. Find its usual speed.

- A 1000 km/h
- B 750 km/h
- C 850 km/h
- D 650 km/h

Answer: B

Explanation:

$$time = \frac{distance}{speed}$$

$$t_1 = \frac{1500}{S}$$

$$t_2 = \frac{1500}{S+250}$$

Given $t_1 - t_2 = 1/2$ hours

$$\text{So, } \frac{1500}{S} - \frac{1500}{S+250} = \frac{1}{2}$$

On solving $S=750$ kmph

7. What smallest number should be added to 4456 so that the sum is completely divisible by 6?

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

Answer: C

Explanation:

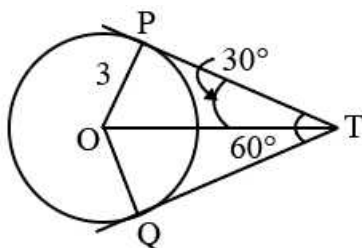
For divisibility by 6, number should be divide by 3 and even.

$$\text{Sum of number} = 4 + 4 + 5 + 6 = 19$$

For divisible by 3, 2 number should be added so,

$$\text{Number} = 4456 + 2 = 4458$$

8. If two tangents inclined at an angle 60° are drawn to a circle of radius 3 cm, then length of each tangent is equal to



- A $\frac{3}{2}\sqrt{2}$ cm

B 6 cm

C 3 cm

D $3\sqrt{3}\text{ cm}$

Answer: D

Explanation:

TPO is a right angled triangle .

$$\text{So } \sin(30) = \frac{OP}{TO} = \frac{3}{TO} \Rightarrow TO = 6$$

$$PT^2 = TO^2 - OP^2 = 36 - 9 = 27$$

$$PT = 3\sqrt{3}$$

9. Find the value of $\log_3 2 \cdot 5^4 \times \log_5 2 \cdot 3^4$

A 5

B 3

C 4

D 2

Answer: C

Explanation:

$$\log_{b^n}(a^m) = \frac{m}{n} \log_b a = \frac{m}{n} \cdot \frac{\log(a)}{\log(b)}$$

$$\text{So given equation becomes } \frac{4}{2} \cdot \frac{4}{2} \cdot \frac{\log(3)}{\log(2)} \cdot \frac{\log(2)}{\log(3)} = 4$$

10. Find the value of 1% of 1% of 25% of 1000 is

A 0.025

B 0.0025

C 0.25

D 0.000025

Answer: A

Explanation:

$$\frac{1}{100} \cdot \frac{1}{100} \cdot \frac{25}{100} \cdot 1000 = 0.025$$

11. C is the mid-point of PQ, if P is (4, x), C is (y, -1) and Q is (-2, 4), then x and y respectively are

A -6 and 1

B -6 and 2

C 6 and -1

D 6 and -2

Answer: A

Explanation:

Midpoint of P(x₁,y₁) , Q(x₂,y₂) = $C(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2})$

So $y = \frac{4-2}{2}$, $-1 = \frac{x+4}{2}$

On solving x=-6 and y=1

12. In a given race the odds in favour of three horses A, B, C are 1:3; 1:4; 1:5 respectively. Assuming that dead heat is impossible the probability that one of them wins is

A $\frac{7}{60}$

B $\frac{37}{60}$

C $\frac{1}{5}$

D $\frac{1}{8}$

Answer: B

Explanation:

Odds in favour of A = 1:3, thus $P(A \text{ wins}) = \frac{1}{1+3} = \frac{1}{4}$

Odds in favour of B = 1:4, thus $P(A \text{ wins}) = \frac{1}{1+4} = \frac{1}{5}$

Odds in favour of C = 1:5, thus $P(A \text{ wins}) = \frac{1}{1+5} = \frac{1}{6}$

Since deadheat is not possible only 1 will win.

$P(A \text{ or } B \text{ or } C \text{ wins}) = \frac{1}{4} + \frac{1}{5} + \frac{1}{6} = \frac{37}{60}$

13. A and B rent a pasture for 10 months; A puts in 80 cows for 7 months. How many can B put in for the remaining 3 months, if he pays half as much again as A?

A 120

B 180

C 200

D 280

Answer: D

Explanation:

It is given that B pays 1.5 times that of A

Let B put N number of cows for 3 month

$$\frac{\text{Money paid by B}}{\text{Money paid by A}} = \frac{3}{2} = \frac{3 \times N}{80 \times 7}$$

$$N = 280$$

14. A property dealer sells a house for ` 6,30,000 and in the bargain makes a profit of 5%. Had he sold it for ` 5,00,000, then what percentage of loss or gain he would have made?

A $2\frac{1}{4}\%$ gain

B 10% loss

C $12\frac{1}{2}\%$ loss

D $16\frac{2}{3}\%$ loss

Answer: D

Explanation:

$\frac{100000}{600000} \times 100\% = 16\frac{2}{3}\%$ Let the Cost Price of the house be C.P

$$\left(1 + \frac{5}{100}\right) C.P = 630000$$

$$(1.05) C.P = 630000$$

$$C.P = 600,000$$

If he sold house for 500,000; he would incur loss of 100,000

$$\text{loss percent} = \frac{100000}{600000} \times 100\% = 16\frac{2}{3}\%$$

15. The average of 11 numbers is 10.9. If the average of the first six numbers is 10.5 and that of the last six numbers is 11.4, then the middle number is :

A 11.5

B 11.4

C 11.3

D 11.0

Answer: A

Explanation:

Let $a_1, a_2, \dots, a_{11}$ be the 11 number

$$a_1 + a_2 + \dots + a_{11} = 11 \times 10.9 = 119.9 \dots \text{(I)}$$

$$\text{Average of first six is 10.5 thus } a_1 + a_2 + \dots + a_6 = 6 \times 10.5 = 63 \dots \text{(II)}$$

$$\text{Average of last six is 11.4 thus } a_6 + a_7 + \dots + a_{11} = 6 \times 11.4 = 68.4 \dots \text{(III)}$$

$$\text{(II)+(III)-(I) gives } a_6 = 11.5$$

16. A can do a piece of work in 25 days and B in 20 days. They work together for 5 days and then A goes away. In how many days will B finish the remaining work ?

A 17 days

B 11 days

C 10 days

D 15 days

Answer: B

Explanation:

Let 100 units of work be there.

$$\eta_A = \frac{100}{25} = 4 \text{ units per day}$$

$$\eta_B = \frac{100}{20} = 5 \text{ units per day}$$

$$\text{Amount of work done when they work together for 5 days} = 5 \times (\eta_A + \eta_B) = 5 \times (4 + 5) = 45 \text{ units}$$

$$\text{Remaining work} = 100 - 45 = 55 \text{ units}$$

Time taken by B = $\frac{55}{5} = 11 \text{ days}$

17. At a simple interest, 800 becomes 956 in three years. If the interest rate, is increased by 3%, how much would 800 become in three years?

- A 1020.80
- B 1004
- C 1028
- D Data inadequate

Answer: C

Explanation:

Let the current interest be r%

$$800 + \frac{800 \times r \times 3}{100} = 956$$

$$r = 6.5\%$$

Updated rate of interest = $3 + 6.5 = 9.5\%$

$$\text{Sum after 3 years} = 800 + \frac{800 \times 9.5 \times 3}{100} = 1028$$

18. The jogging track in a sports complex is 726 metres in circumference. Pradeep and his wife start from the same point and walk in opposite directions at 4.5 km/h and 3.75 km/h, respectively. They will meet for the first time in

- A 5.5 min
- B 6.0 min
- C 5.28 min
- D 4.9 min

Answer: C

Explanation:

Since Pradeep and his wife are going in the opposite direction, their relative velocity will be added.

Their relative velocity = $4.5 + 3.75 = 8.25 \text{ km/hr} = 137.5 \text{ m/min}$

$$\text{Time taken to cover 726 meters} = \frac{726}{137.5} = 5.28 \text{ minutes}$$

19. What number must be added to the expression $16a^2 - 12a$ to make it a perfect square?

- A $\frac{9}{4}$
- B $\frac{11}{2}$
- C $\frac{13}{2}$
- D 16

Answer: A

Explanation:

$$16a^2 - 12a = (4a)^2 - (2)(4a)\left(\frac{3}{2}\right)$$

by adding $\left(\frac{3}{2}\right)^2$ we can write it as $\left(4a - \frac{3}{2}\right)^2$

Hence $\left(\frac{3}{2}\right)^2 = \frac{9}{4}$ is required answer

20. The monthly salaries of A and B together amount to ₹ 40,000. A spends 85% of his salary and B, 95% of his salary. If now their savings are the same, then the salary (in ₹) of A is

A 10,000

B 12,000

C 16,000

D 18,000

Answer: A

Explanation:

Let a and b represent salaries of A and B respectively

then $a + b = 40000$...(I)

After spending 85% of his salary, savings of A will be $= (0.15)a$

After spending 95% of his salary, savings of B will be $= (0.05)b$

Their savings are equal, therefore $(0.15)a = (0.05)b$ or $3a = b$...(II)

Solving eqn (I) and (II) we get $a = 10,000$

21. The difference of two numbers is 1365. On dividing the larger number by the smaller, we get 6 as quotient and 15 as remainder. What is the smaller number ?

A 240

B 270

C 295

D 360

Answer: B

Explanation:

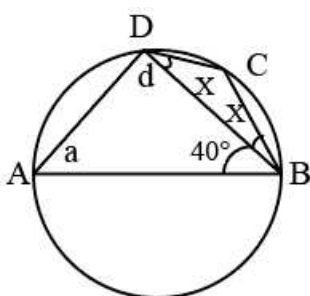
Let smaller number be x

The bigger number will be $6x + 15$

Their difference $= 5x + 15 = 1365$

$x = 270$ is required answer

22. In the adjoining figure, ABCD is a cyclic quadrilateral. If AB is a diameter, $BC = CD$ and $\angle ABD = 40^\circ$, find the measure of $\angle DBC$.



- A** 65
- B** 25
- C** 45
- D** 60

Answer: B

Explanation:

Since AB is the diameter $\angle ADB = 90^0$

Which gives $\angle DAB = 50^0$

ABCD is cyclic quadrilateral so $\angle A + \angle C = 180^0$

Thus $\angle DCB = 130^0$

In $\triangle BCD$, $2x + 130 = 150$

$$x = 25^0$$

23. **A bag contains 5 white and 3 black balls, and 4 are successively drawn out and not replaced. What's the chance of getting different colours alternatively?**

- A** $\frac{1}{6}$
- B** $\frac{1}{5}$
- C** $\frac{1}{4}$
- D** $\frac{1}{7}$

Answer: D

Explanation:

Probability of alternate balls when first ball is black = $\frac{5}{8} \times \frac{3}{7} \times \frac{4}{6} \times \frac{2}{5} = \frac{1}{14}$

Probability of alternate balls when first ball is white = $\frac{3}{8} \times \frac{5}{7} \times \frac{2}{6} \times \frac{4}{5} = \frac{1}{14}$

Overall Probability = $\frac{1}{14} + \frac{1}{14} = \frac{1}{7}$

24. **What is the value of x in the following expression?**

$$x + \log_{10}(1 + 2^x) = x \log_{10} 5 + \log_{10} 6$$

- A** 1
- B** 0
- C** -1
- D** 3

Answer: A

Explanation:

The given equation can be written as

$$\log (10)^x + \log (1 + 2^x) = \log (5)^x + \log 6$$

$$\log (10)^x (1 + 2^x) = \log (5)^x \cdot 6 \quad (\text{since } \log A + \log B = \log AB)$$

$$\log \frac{(2^x \cdot 5^x)(1+2^x)}{5^x \cdot 6} = 0 \quad (\text{since } \log A - \log B = \log A/B)$$

$$\frac{(2^x + 2^{2x})}{6} = 10^0 \quad (\text{Since } \log_a N = x \Rightarrow N = a^x)$$

$$2^x + 2^{2x} = 6$$

The above equation is satisfied only when $x=1$

25. Which of the following functions is an odd function?

A $2^{-x \cdot x}$

B $2^{x-x \cdot x \cdot x \cdot x}$

C Both (a) and (b)

D Neither (a) nor (b)

Answer: D

Explanation:

For odd function $f(x) = -f(-x)$

for option A : $f(x) = 2^{-x \cdot x}$, $f(-x) = 2^{-(-x) \cdot (-x)} = 2^{-x \cdot x} = f(x)$. Hence Option A is not correct

for Option B : $f(x) = 2^{x-x \cdot x \cdot x \cdot x}$, $f(-x) = 2^{(-x)-(-x) \cdot (-x) \cdot (-x) \cdot (-x)} = 2^{(-x)-x \cdot x \cdot x \cdot x} \neq -f(-x)$

Neither A or B are correct

26. The cost of the paint is 36.50 per kg. If 1 kg of paint covers 16 square feet, how much will it cost to paint outside of a cube having 8 feet each side?

A 692

B 768

C 876

D 972

Answer: C

Explanation:

$$\text{Total surface area of cube} = 6 \times 8^2 = 384$$

$$\text{Amount of paint required} = \frac{384}{16} = 24 \text{ kgs}$$

$$\text{Cost of 24kgs paint} = 24 \times 36.5 = 876$$

27. A horse takes $2\frac{1}{2}$ seconds to complete a round around a circular field. If the speed of the horse was 66 m/sec, then the radius of the field is,
[Given $\pi = \frac{22}{7}$]

A 25.62 m

B 26.52 m

C 25.26 m

D 26.25 m

Answer: D

Explanation:

Total distance covered by horse = Circumference of the circle.

$$2.5 \times 66 = 2\pi \times (\text{radius})$$

$$2.5 \times 66 = 2 \times \frac{22}{7} \times (\text{radius})$$

$$\text{radius} = 26.25$$

28. One litre of water is evaporated from 6 litres of a solution containing 5% salt. The percentage of salt in the remaining solution is

A $4\left(\frac{4}{9}\right)\%$

B $5\left(\frac{5}{7}\right)\%$

C 5%

D 6%

Answer: D

Explanation:

Let the percentage of salt in the solution be $x\%$. The amount of salt will be constant. Upon equating

$$5\% \text{ of } 6l = x\% \text{ of } 5l$$

It gives $x = 6$

29. The last two-digits in the multiplication $122 \times 123 \times 125 \times 127 \times 129$ will be

A 20

B 50

C 30

D 40

Answer: B

Explanation:

While finding the last 2 digits, we can ignore the hundredth digit of each number and the last two digit will be the same as last two digit in case of $22 \times 23 \times 25 \times 27 \times 29$.

$25 \times 22 = 550$, which is an important result.

The rest numbers, 23, 27 and 29 when multiplied by 550, will result in the same last 2 digits as odd number multiplied by 5 will always give 5 as the last digit and we already have 0 at the end of it. So, odd number $\times 50 = X50$ always.

So, the last 2 digits will always be 50.

30. If the numerator of a fraction is increased by 200% and the denominator is increased by 200%, then resultant fraction is $2\frac{4}{5}$. What is the original fraction?

A $\frac{4}{7}$

B $\frac{13}{12}$

C $\frac{11}{12}$

D None

Answer: D

Explanation:

Let the original fraction be $\frac{a}{b}$.

Given that Numerator, a is increased by 200% or it becomes 3 times. So, new numerator= 3a.

The denominator increases by 200%, and it also becomes 3 times. So, new denominator= 3b.

So, the new fraction= $\frac{3a}{3b}$, which is same as $\frac{a}{b}$, the old fraction.

The value of the fraction is given to be $2\frac{4}{5} = \frac{14}{5}$, which is also the old fraction.

Since, none of the first three options match. Option D is the correct choice.

31. The value of $\frac{\frac{1}{2} \text{ divided by } \frac{1}{2} \text{ of } \frac{1}{2}}{\frac{1}{2} + \frac{1}{2} \text{ of } \frac{1}{2}}$

A $\frac{2}{3}$

B 2

C $\frac{4}{3}$

D 3

Answer: A

Explanation:

We always follow BODMAS

Now first taking numerator

which $\frac{1}{2} \text{ divided by } \frac{1}{2} \text{ of } \frac{1}{2}$

so we get $\frac{\frac{1}{2}}{\frac{1}{2}} \times \frac{1}{2} = \frac{1}{2}$

Now taking denominator we get $\frac{1}{2} + \frac{1}{2} \times \frac{1}{2} = \frac{3}{4}$

Taking ratio

we get : $\frac{\frac{1}{2}}{\frac{3}{4}} = \frac{2}{3}$

32. On a journey across Kolkata, a taxi averages 40 kmph for 60% of distance, 30 kmph for 20% of the distance, and 10 kmph for the remainder. The average speed of the whole journey is

A 25 kmph

B 26 kmph

C 24 kmph

D 30 kmph

Answer: C

Explanation:

Let the total distance covered by the taxi be 100 kms.

For 60% of the distance, i.e. 60 Kms, Speed of the taxi was 40 kmph. Time taken to cover 60 kms= $\frac{\text{Distance}}{\text{Speed}} = \frac{60}{40} = \frac{3}{2} \text{ hrs.}$

For 20% of the distance, i.e. 20 Kms, Speed of the taxi was 30 kmph. Time taken to cover 20 kms= $\frac{\text{Distance}}{\text{Speed}} = \frac{20}{30} = \frac{2}{3} \text{ hrs.}$

For remaining, i.e. 20% of the distance, i.e. 20 Kms, Speed of the taxi was 10 kmph. Time taken to cover 20 kms= $\frac{\text{Distance}}{\text{Speed}} = \frac{20}{10} = 2 \text{ hrs.}$

So, total distance= 100 kms.

$$\text{Total time} = \frac{3}{2} + \frac{2}{3} + 2 = \frac{9+4+12}{6} = \frac{25}{6} \text{ hrs}$$

$$\therefore \text{Average speed} = \frac{\text{Total Distance}}{\text{Total Time}} = \frac{100}{\frac{25}{6}} = \frac{100 \cdot 6}{25} = 4 \times 6 = 24 \text{ kmph}$$

33. **Two numbers are such that the square of greater number is 504 less than 8 times the square of the other. If the numbers are in the ratio 3 : 4. Find the number.**

A 15 and 20

B 6 and 8

C 12 and 16

D 9 and 12

Answer: D

Explanation:

Let the two numbers be 3x and 4x.

According to the question,

$$(4x)^2 = 8(3x^2) - 504$$

$$\Rightarrow 16x^2 = 72x^2 - 504$$

$$\Rightarrow 56x^2 = 504$$

$$\Rightarrow x^2 = 9$$

$$\text{Or, } x = \pm 3$$

Since, x cannot be -3, it is 3.

Therefore the numbers are 3x and 4x, which is 9 and 12.

34. **A bag contains 100 tickets numbered 1, 2, 3, 100. If a ticket is drawn out of it at random, what is the probability that the ticket drawn has the digit 2 appearing on it?**

A $\frac{21}{100}$

B $\frac{19}{100}$

C $\frac{32}{100}$

D $\frac{23}{100}$

Answer: B

Explanation:

We will first look at the numbers that have 2 in the unit's digit.

So, the numbers between 1 to 100 having 2 in unit's place are 2, 12, 22, 32... 92. So, there are 10 such numbers.

For numbers having 2 at ten's place, we have numbers from 20 to 29. In total we have 10 such numbers.

But, 22 is common to both the groups, and hence,

Total numbers with between 1 and 100 with digit 2 on it is $10+10-1=19$.

Total sample space= 100.

So, required probability= $\frac{19}{100}$

35. A train passes a station platform in 36 seconds and a man standing on the platform in 20 seconds. If the speed of the train is 54 km/h, then find the length of the platform.

A 225 m

B 235 m

C 230 m

D 240 m

Answer: D

Explanation:

We have two parameters to look at in this question:

1) Length of the train. Let this be assumed to be a metres.

2) Length of the platform. Let us assume it as b metres.

It is given that speed of the train is 54 km/h Or, $54 \times \frac{5}{18} = 15$ m/s

So, when it passes the man, distance covered will be the length of the train itself= a metres.

So, time taken= $\frac{\text{Distance}}{\text{Speed}} = \frac{a}{15}$, which is given to be 20 seconds.

So, $\frac{a}{15} = 20$. And a= 300 metres.

Now, to pass the entire platform, we need to account for both the length of the platform and that of the train.

So, effective distance to be covered= a+b= 300+b metres.

Speed of the train = 15 m/s.

So, time taken= $\frac{300+b}{15}$, which is given to be 36 seconds.

So, $\frac{300+b}{15} = 36$

$\Rightarrow 300 + b = 36 \times 15$

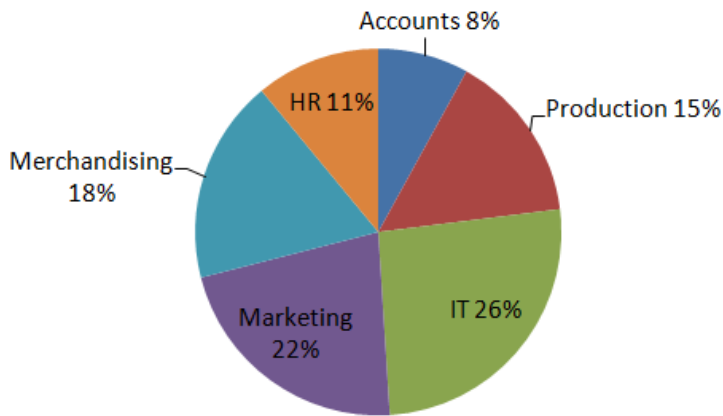
$\Rightarrow b = 540 - 300$

So, b= Length of the train= 240 metres.

Instructions [36 - 40]

Study the pie chart and table carefully to answer the questions that below:

Number of employees working in various departments of an organization and the ratio of men to women in the same



Total number of Employees = 4600

Ratio of men to women

Departments	Men	Women
HR	1	1
Accounts	3	1
Production	3	2
IT	1	3
Marketing	1	1
Merchandising	5	1

36. What is the number of women in the accounts department ?

- A** 86
- B** 102
- C** 80
- D** 92

Answer: D

Explanation:

Total employees in Accounts department= 8% of 4600= 368

Ratio of Men: women= 1:3

So, total women in accounts department= $\frac{1}{4} \times 368 = 92$

37. What is the total number of employees working in the IT department and HR department together ?

- A** 1628
- B** 1742
- C** 1766
- D** 1702

Answer: D

Explanation:

The total number of employees :4600

Now total percentage of employees working in IT and HR : 26+11 =37 %

S o number = 4600(0.37)

=1646

38. What is the ratio of the total number of men to the total number of women working in all the departments together ?

A 63 : 41

B 41 : 27

C 53 : 47

D 27 : 19

Answer: C

Explanation:

$$\text{Number of Men in HR} = \frac{1}{2} \times 11\% \text{ of } 4600 = \frac{1}{2} \times \frac{11}{100} \times 4600 = 253$$

$$\text{Number of Men in Accounts} = \frac{3}{4} \times 8\% \text{ of } 4600 = \frac{1}{2} \times \frac{8}{100} \times 4600 = 276$$

$$\text{Number of Men in Production} = \frac{3}{5} \times 15\% \text{ of } 4600 = \frac{1}{2} \times \frac{15}{100} \times 4600 = 414$$

$$\text{Number of Men in IT} = \frac{1}{4} \times 26\% \text{ of } 4600 = \frac{1}{2} \times \frac{26}{100} \times 4600 = 299$$

$$\text{Number of Men in Marketing} = \frac{1}{2} \times 22\% \text{ of } 4600 = \frac{1}{2} \times \frac{22}{100} \times 4600 = 506$$

$$\text{Number of Men in Merchandising} = \frac{5}{6} \times 18\% \text{ of } 4600 = \frac{1}{2} \times \frac{18}{100} \times 4600 = 690$$

$$\text{Total men} = 253 + 276 + 414 + 299 + 506 + 690 = 2438.$$

$$\text{Total Women} = 4600 - 2438 = 2162.$$

$$\text{Ratio of men and women} = \frac{2438}{2162} = \frac{53}{47}$$

Hence, Option C

39. The number of women in the merchandising department forms what per cent of the total number of employees in the organization ?

A 3%

B 6%

C 1%

D 12%

Answer: A

Explanation:

$$\text{Total Employees} = 4600.$$

$$\text{Total employees in Merchandising} = 18\% \text{ of } 4600 = 828.$$

$$\text{Ratio of women and men} = 1/5.$$

$$\text{So, number of women} = \frac{1}{6} \times 828 = 138$$

$$\% \text{ of women} = \frac{138}{4600} \times 100 = 3\%$$

40. What is the ratio of the number of men in the production department to the number of men in the marketing department ?

A 7 : 3

B 9 : 11

C 13 : 7

D 11 : 9

Answer: B

Explanation:

Total employees given= 4600

Total employees in production = 15% of 4600= 690.

Ratio of men and women in Production= 3:2

Number of men= $\frac{3}{5} \times 690 = 3 \times 138 = 414$

Total employees in Marketing= 22% of 4600= $22 \times 46 = 1012$.

Ratio of men and women in Production= 1:1

Therefore number of men= $\frac{1}{2} \times 1012 = 506$

So, Number of men in Production: Number of men in Marketing= $\frac{414}{506} = \frac{9}{11}$

Reasoning

Instructions [41 - 42]

In each of the following questions, there are two words / set of letters / numbers to the left of the sign :: which are connected in some way. The same relationship obtains between the third words / set of letters / numbers and one of the four alternatives under it. Find the correct alternative in each question.

41. **DRIVEN : EIDRVN :: BEGUM : ?**

A EUBGM

B MGBEU

C BGMEU

D UEBGM

Answer: A

Explanation:

In the first pair of words, vowels are taken together and written down in the alphabetical order followed by the consonants in the same alphabetical order.

So, for BEGUM, the vowels are E and U. The consonants are B,G and M. When arranged alphabetically, it becomes EUBGM- option A.

42. **Shout : Whisper :: Run : ?**

A Stay

B Stand

C Walk

D Hop

Answer: C

Explanation:

The analogy could be understood as the first word of the given pair is an extreme form of the other.

So, running is an extreme form of walking. And hence, C is our answer.

43. Question below has a three statement, followed by four conclusions numbered I, II, III and IV. You have to consider every given statement as true, even if it does not conform to the well known facts. Read the conclusions and then decide which of the conclusions can be logically derived.

Statements:

- I. Some toys are pens.
- II. Some pens are papers.
- III. Some papers are black.

Conclusions:

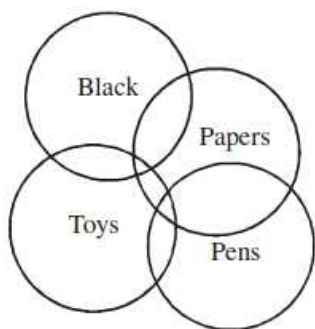
- I. Some toys are black.
- II. No pen is black.
- III. No toy is black.
- IV. Some pens are black.

- A** None follows
- B** Either II or IV
- C** Either I or III and either II or IV
- D** Either I or IV
- E** All of the above

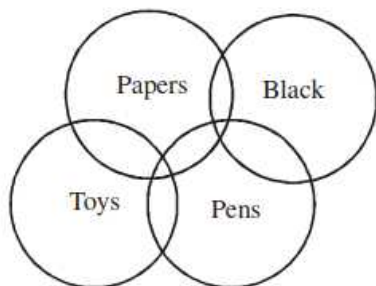
Answer: C

Explanation:

From the statements
The possibilities are :



or



From the above two possibilities
we can say Either I or III and either II or IV follows

44. A fires 5 shots to B's 3 but A kills only once in 3 shots while B kills once in 2 shots. When B has missed 27 times, A has killed

- A** 30 birds

B 60 birds

C 72 birds

D 90 birds

Answer: A

Explanation:

Let the no of shots be x . Then,

Shots fired by A = $(5/8)x$

Shots fired by B = $(3/8)x$

Killing shots by A = $1/3$ of $(5/8)x = (5/24)x$

Shots missed by B = $1/2$ of $(3/8)x = (3/16)x$

$(3/16)x = 27 \Rightarrow$

$x = 144$

Birds killed by A = $(5/24)x = (5/24) \times 144 = 30$

45. At what time between 9PM and 10PM minute hand and hour hand will be opposite to each other?

A 9:15 $\frac{4}{11}$

B 9:16 $\frac{4}{11}$

C 9:12 $\frac{4}{11}$

D None of these

Answer: B

Explanation:

The hour hand and the minute hands will be opposite to each other when the angle between them = 180° .

At 9PM, angle between the two hands = 270°

The minute hand covers 360° in 60 minutes. So, in 1 minute, it covers $\frac{360^\circ}{60} = 6^\circ$

Similarly for the hour hand, it covers 360° in 12 hours or 720 minutes.

$\therefore$ The hour hand covers $\frac{360^\circ}{720} = 0.5^\circ$.

Using the concept of relative speed, since both the hands move in the same directions, the effective speed = $(6 - 0.5)^\circ = 5.5$ or $\frac{11}{2}$ degrees per minute.

Effective distance to cover = $270^\circ - 180^\circ = 90^\circ$

Therefore time taken = $\frac{90}{\frac{11}{2}} = \frac{180}{11} = 16 \frac{4}{11}$ minutes after 9 PM.

Option B is our answer.

46. Read the following information and answer the questions given below it :

'A + B' means 'A is the daughter of B';

'A $\times$ B' means 'A is the son of B';

'A - B' means 'A is the wife of B';

If $P \times Q - S$, which of the following is true ?

- A** S is wife of Q.
- B** S is father of P.
- C** P is daughter of Q.
- D** None of these

Answer: B

Explanation:

$P \times Q$ means P is the son of Q.

Q-S Means Q is the wife of S.

So, Q and S are a couple, where S is the husband and Q is the wife. Also, P is their son.

So, S is the father of P.

Instructions [47 - 50]

In a school students at Pioneer career Kolkata wrote Mock test which has three subjects DI, VA and QA, here is the result of these students. 80 students cleared cut off in DI, 70 in VA and 60 in QA. Only 40 students cleared all the three subjects. 10 students failed to clear cut off even in one subjects. 50 students cleared cut off in VA and QA. 5 students cleared in cut off in only QA.

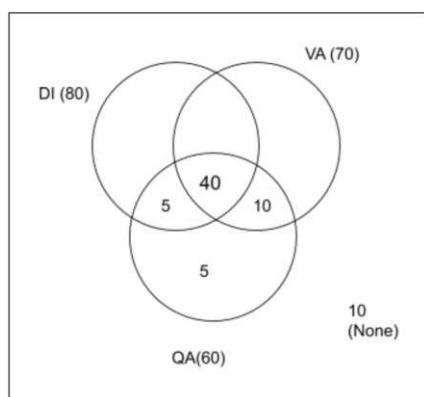
47. **What is the minimum number of students who appeared in the Mock test.**

- A** 105
- B** 110
- C** 115
- D** None of these

Answer: A

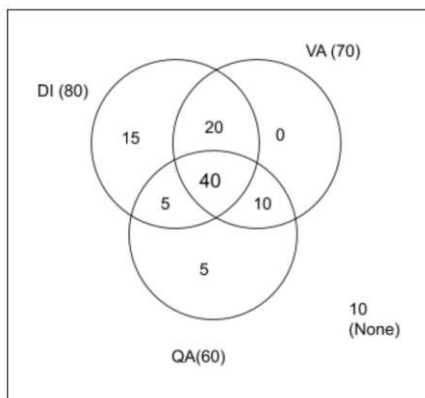
Explanation:

With the given information, we can draw the following venn diagram:



For minimum students to appear for the exam, we can maximise the part common to VA and DI.

We will get the following final venn diagram:



So, total students appearing= $80+10+5+10= 105$

48. What is the minimum number of students who did not clear cut off in exactly two subjects?

- A 5
- B 15
- C 20
- D None of these

Answer: C

49. What is the ratio of number of students who didn't clear cut off DI, but cleared cut off in QA to the number of students who didn't clear cut off only in VA

- A 3:1
- B 3:2
- C 1:3
- D None of these

Answer: A

Explanation:

Since 40 students cleared cut off in all the three subjects, while 50 students cleared cut off in VA and QA hence the number of students who cleared cut off in only VA and QA is $50-40=10$

5 students cleared cut off in only QA hence the number of students who cleared cut off in only DI and QA is $60-40-10=5$

Let the number of students who cleared cut off in only DI and VA is x.

From the given condition, the ratio is $15/5 = 3:1$

50. If number of students who didn't clear cut off in at least two subjects is maximum possible then find the number of students who failed in exactly one subject?

- A 5
- B 15
- C 20
- D None of these

Answer: B

Explanation:

Since 40 students cleared cut off in all the three subjects, while 50 students cleared cut off in VA and QA hence the number of students who cleared cut off in only VA and QA is $50 - 40 = 10$

5 students cleared cut off in only QA hence the number of students who cleared cut off in only DI and QA is $60 - 40 - 10 - 5 = 5$

Let the number of students who cleared cut off in only DI and VA is x .

number of students who didn't clear cut off in at least two subjects = $(35 - x) + (20 - x) + 5 + 10 = 70 - 2x$

This is max when $x = 0$

=> number of students who failed in exactly one subject = $10 + 5 + x = 15$

51. Five persons with names P, M, U, T and X live separately in any one of the following: a palace, a hut, a fort, a house or a hotel. Each one likes two different colors from among the following: blue, black, red, yellow and green. U likes red and blue. T like black. The person living in a palace does not like black or blue. P likes blue and red. M likes yellow. X lives in a hotel. M lives in a:

- A Hut
- B Palace
- C Fort
- D House

Answer: B

Explanation:

X lives in a hotel

Palace cannot be allotted to T since T likes black

Palace cannot be allotted to U since U likes blue

Palace cannot be allotted to P since P likes blue

Hence M stays in palace

52. Sangeeta remembers that her father's birthday was certainly after eighth but before thirteenth of December. Her sister Natasha remembers that their father's birthday was definitely after ninth but before fourteenth of December. On which date of December was their father's birthday ?

- A 10^{th}
- B 11^{th}
- C 12^{th}
- D Data inadequate

Answer: D

Explanation:

According to Sangeeta, the dates can be 9,10,11,12

According to Natasha, the dates can be 10,11,12,13

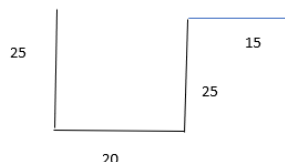
Hence we cannot accurately say the date of his birthday.

53. Rohit walked 25 metres towards South. Then he turned to his left and walked 20 metres. He then turned to his left and walked 25 metres. He again turned to his right and walked 15 metres. At what distance is he from the starting point and in which direction?

- A** 35 metres east
- B** 35 metres north
- C** 40 metres east
- D** 60 metres east

Answer: A

Explanation:



The final position would be 35 metres east

54. In the following question, a statement is given followed by two conclusions I and II. Give answer :

Statement :

The best way to escape from a problem is to solve it.

Conclusions :

I. Your life will be dull if you don't face problem.

II. To escape from problem, you should always have some solutions with you.

- A** if only conclusion I follows;
- B** if only conclusion II follows;
- C** if either I or II follows;
- D** if neither I nor II follows;

Answer: D

Explanation:

The **statement** says that the **best way to escape from a problem is to solve** it. From this **we** cannot conclude that **life is dull if you don't face problems**. Neither **can we** conclude that to **escape** or avoid **problems you should have some solutions with you**.

Instructions [55 - 58]

Read the following information and answer the questions that follow:

Mr. Mansingh has five sons - Arun, Mahi, Rohit, Nilesh and Saurav, and three daughters - Tamanna, Kuntala and Janaki. Three sons of Mr. Mansingh were born first followed by two daughters. Saurav is the eldest child and Janki is the youngest. Three of the children are studying at Trinity School and three are studying at St. Stefan. Tamanna and Rohit study at St. Stefan School. Kuntala, the eldest daughter, plays chess. Mansorover school offers cricket only, while Trinity school offers chess. Beside, these schools offer no other games. The children who are at Mansorover School have been born in succession. Mahi and Nilesh are cricketers while Arun plays football. Rohit who was born just before Janki, plays hockey.

55. Arun is the _____ child of Mr. Mansingh.

- A** 2nd
- B** 3rd
- C** 6th

D 5th

Answer: C

Explanation:

Order	Gender	Person	School	Sport
1	Male	Saurav	Trinity	chess
2	Male	Mahi/Nilesh	Mansorover	cricket
3	Male	Nilesh/mahi	Mansorover	cricket
4	Female	Kuntala	Trinity	chess
5	Female	Tamanna	Stefan	
6	Male	Arun	Stefan	Football
7	Male	Rohit	Stefan	Hockey
8	Female	Janaki	Trinity	chess

56. Saurav is a student of which school?

- A Trinity
- B St. Stefan
- C Mansarover
- D Cannot be determined

Answer: A

Explanation:

Order	Gender	Person	School	Sport
1	Male	Saurav	Trinity	chess
2	Male	Mahi/Nilesh	Mansorover	cricket
3	Male	Nilesh/mahi	Mansorover	cricket
4	Female	Kuntala	Trinity	chess
5	Female	Tamanna	Stefan	
6	Male	Arun	Stefan	Football
7	Male	Rohit	Stefan	Hockey
8	Female	Janaki	Trinity	chess

57. What game does Tamanna play?

- A Cricket
- B Hockey
- C Football
- D Cannot be determined

Answer: D

Explanation:

Order	Gender	Person	School	Sport
1	Male	Saurav	Trinity	chess
2	Male	Mahi/Nilesh	Mansorover	cricket
3	Male	Nilesh/mahi	Mansorover	cricket
4	Female	Kuntala	Trinity	chess
5	Female	Tamanna	Stefan	
6	Male	Arun	Stefan	Football
7	Male	Rohit	Stefan	Hockey
8	Female	Janaki	Trinity	chess

The sport of Tamanna is unknown

58. Which of the following pairs was not born in succession (ignore the order)?

- A** Mahi and Nilesch
- B** Kuntala and Arun
- C** Rohit and Janki
- D** Arun and Rohit

Answer: B

Explanation:

Order	Gender	Person	School	Sport
1	Male	Saurav	Trinity	chess
2	Male	Mahi/Nilesch	Mansorover	cricket
3	Male	Nilesch/mahi	Mansorover	cricket
4	Female	Kuntala	Trinity	chess
5	Female	Tamanna	Stefan	
6	Male	Arun	Stefan	Football
7	Male	Rohit	Stefan	Hockey
8	Female	Janaki	Trinity	chess

Kuntala and Arun are not born in succession.

59. Read this question based on the information given below:

Wendy, a student, is an avid backgammon player. All students play either chess or checkers, but some checkers players do not play chess because they do not understand chess strategy. Backgammon players never play checkers, because they do not find checkers challenging. Therefore, Wendy must understand chess strategy.

Which of the following must be true for the conclusion drawn above to be logically correct?

- A** All chess players understand chess strategy
- B** Backgammon is more challenging than checkers
- C** Chess is more challenging than backgammon
- D** All students who find backgammon challenging play checkers

Answer: A

Explanation:

B and C can be rules because nothing has been mentioned about how challenging each sport is.

D is also ruled out. It is possible that only some (not ALL) students who find backgammon challenging play checkers.

60. In the following question, a statement is given followed by three assumptions numbered I, II and III. Consider the statement and the following assumptions and decide which of the assumptions is implicit.

Statement :

India's economic growth has come at a terrible price of increased industrial and vehicular pollution.

Assumptions :

- I. Pollution is a part of industrial society.
- II. Indian economic growth is based on only industrial growth.
- III. A country desires economic growth with manageable side-effects.

- A** Only I is implicit
- B** Only II is implicit
- C** Only I and III are implicit

D Only III is implicit

Answer: C

Explanation:

The statement mentions that India had to pay the price of increased pollution level to earn its economic growth. So, both I and III are implicit. However, this does not imply that only industrial growth has brought about India's economic growth. So, II is not implicit.

61. In a joint family, there are father, mother, 3 married sons and one unmarried daughter. Of the sons, two have 2 daughters each, and one has a son. How many female members are there in the family ?

A 2

B 3

C 6

D 9

Answer: D

Explanation:

The female members in the family are mother, wives of 3 married sons unmarried daughter and 2 daughters of each of the two sons. Number of female members = $(1 + 3 + 1 + 2 \times 2) = 9$

Instructions [62 - 63]

In the following letter series, some of the letters are missing, which are given below it. Choose the correct alternative.

62. D_F_DEE_D_EF_DE_F

A EFFDED

B EFFDDF

C EFFDFE

D None of the above

Answer: C

Explanation:

Options (a) and (b) do not make any sense if they are put in the blanks of the series sequence: DEFFDEEFDDEFEDDF using the option (a) shows no consistent pattern.

Similarly, the sequence DEFFDEEFDDEFDDEFF got by using the option (b) also shows no consistent pattern and hence can be rejected.

The sequence formed using option (c) is:

DEFFDEEFDDEFDEEF. This sequence makes sense if you were to break the sequence into 3 terms at a time. You will get the sequence as:

DEF - FDE - EFD - DEF - F-E - EF

In the above sequence, it can be seen that there is always a sequential order in which the three letters appear and also the second group of 3 alphabets starts from the last letter of the first group of 3 alphabets. And this trend continues uninterrupted throughout the sequence. Hence, we can mark option (c) as the correct answer

63. If every 2 out of 3 ready-made shirts need alterations in the sleeves, 3 out of 4 ready-made shirts need alterations in the collar, and every 4 out of 5 need it in the body, how many alterations will be required for 60 shirts?

A 88

- B** 123
C 133
D 143

Answer: C

Explanation:

$\frac{2}{3}$ th of 60 + $\frac{3}{4}$ th of 60 + $\frac{4}{5}$ th of 60

Thus, the number of alterations required = $20 + 45 + 48 = 133$

64. In the following question, a statement is given followed by three assumptions numbered I, II and III. Consider the statement and the following assumptions and decide which of the assumptions is implicit.

Statement :

"Smoking is injurious to health"-a warning printed on the cigarette packets.

Assumptions :

- I. People read printed matter on the cigarette packet.
II. People take careful note of warning.
III. Non-smoking promotes health.

- A** Only I is implicit
B Only I and II are implicit
C Only II is implicit
D All are implicit

Answer: C

Explanation:

A special warning has been printed to caution people against adverse effects of smoking. So, II is implicit while I is not. Also, the fact that smoking is injurious to health does not imply that non-smoking promotes health. So, III is not implicit.

Instructions [65 - 68]

Read the following information answer the question that follow:

Some people enter a conference room and get seated around a circular table.

The following is known about them.

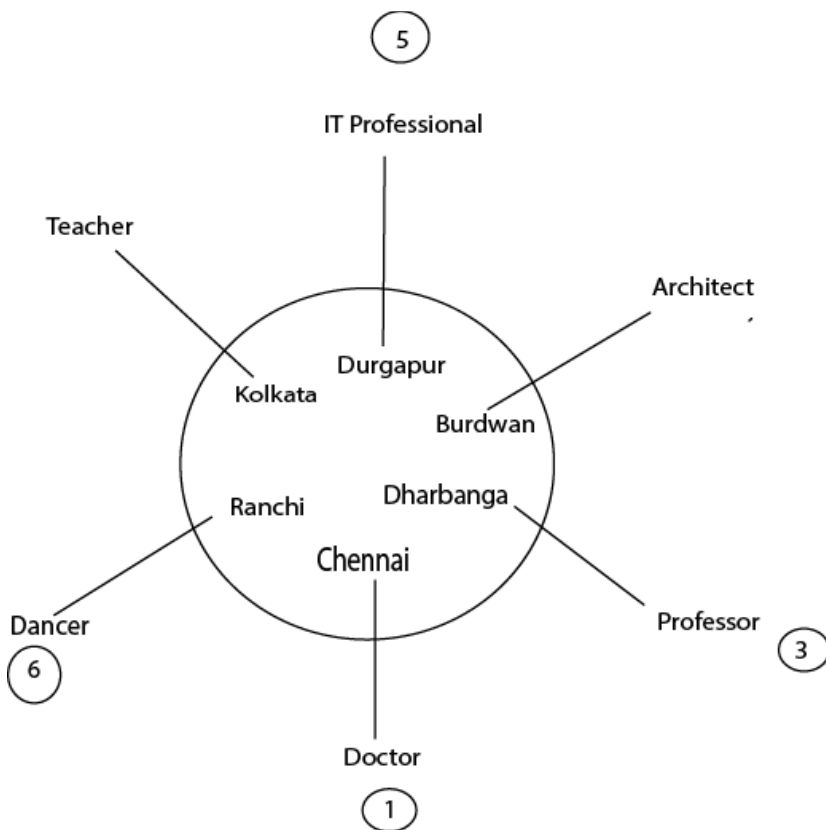
- (i) The first to enter sits opposite to one who belongs to Durgapur but right of Ranchi.
(ii) Teacher belongs to Kolkata and is right to IT professional.
(iii) The guy from Durgapur is adjacent to teacher and architect and opposite to doctor.
(iv) The guy from Ranchi is opposite to architect who is not from Dharbhanga.
(v) The doctor belongs to Chennai and sits adjacent to those who came at 3rd and 6th positions.
(vi) The guy from Burdwan is adjacent to guys who came at 3rd and 5th positions.
(vii) Professor who didn't come at 5th position is equidistant from guys from Ranchi and Durgapur.

65. **Professor is opposite to-**

- A** Teacher
B IT professional
C Dancer
D None of these

Answer: A

Explanation:



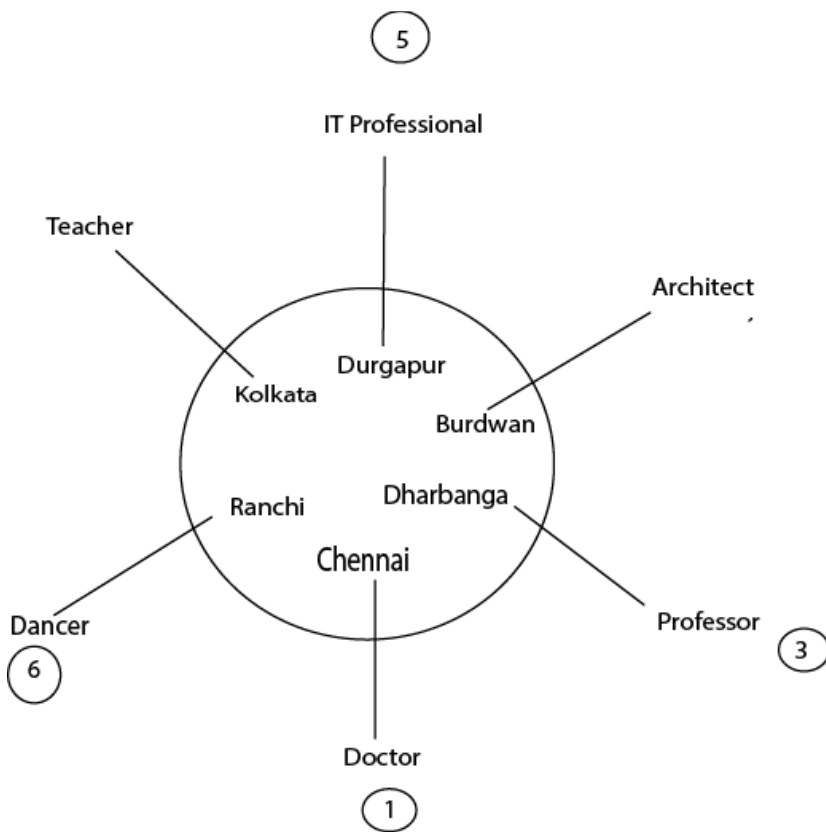
From the arrangement, we can see that Professor is sitting opposite to teacher.

66. Guy from Burdwan is adjacent to-
- (1) Professor and architect
 - (2) Guys from Dharbhanga and Durgapur
 - (3) Architect and IT professional

- A** Only 1
- B** Only 2
- C** Only 2 and 3
- D** None of these

Answer: B

Explanation:



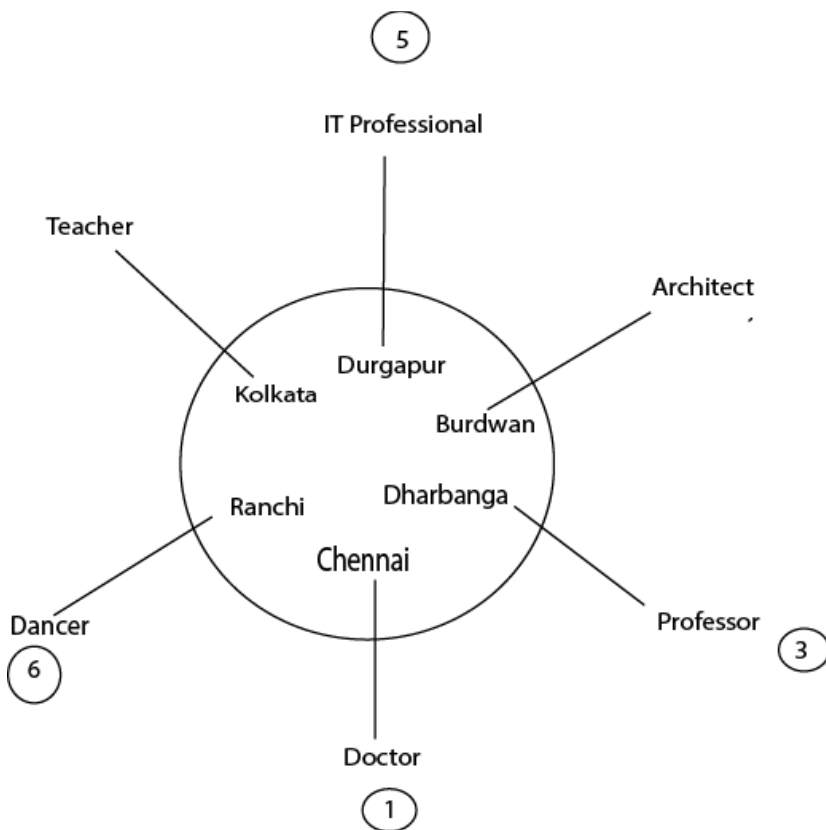
From the given arrangement we can see that only 2 is correct.

67. The guy from Burdwan sitting opposite to guy from Ranchi came at which position?

- A 2nd
- B 4th
- C 5th
- D Cannot be determined

Answer: D

Explanation:



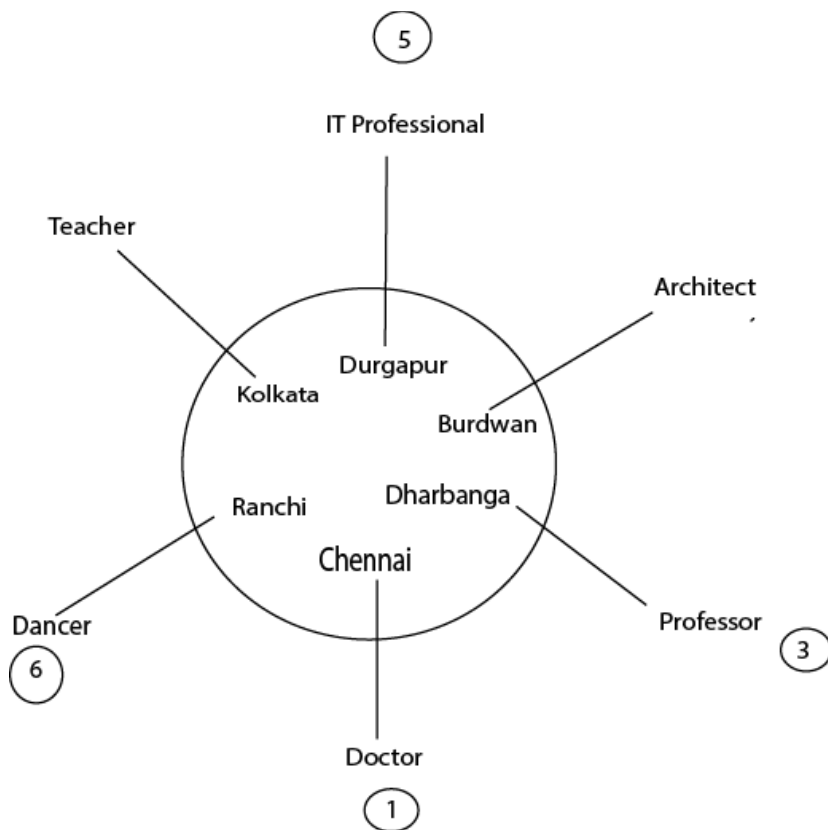
The guy from Burdwan can be at position 2 or 4

68. The dancer is from-

- A Ranchi
- B Dharbhanga
- C Durgapur
- D None of these

Answer: A

Explanation:



From the given figure we can see that dancer is from Ranchi

69. In a queue, A is eighteenth from the front while B is sixteenth from the back. If C is twentyfifth from the front and is exactly in the middle of A and B, then how many persons are there in the queue ?

- A 45
- B 46
- C 47
- D 48

Answer: C

Explanation:

A's position from front 18

C's position from front = 25

B's position from front = 32

B's position from back = 16

Total number of people = $32 + 16 - 1 = 47$

70. Efficiency is all right in its place, in the shop, the factory, the store. The trouble with efficiency is that it wants to rule our play as well as our work; it won't be content to reign in the shop, it follows us home.
It can be inferred from the above passage that:

- A Efficiency can become all - pervading
- B Efficiency does not always pay
- C Efficiency can be more of a torture than a blessing

D None of these

Answer: A

Explanation:

The author is of the opinion that efficiency is not limited only to work. but to all the things, and thus it is all-pervading

General English

Instructions [71 - 73]

Choose the correct antonym for the word below from the options provided.

71. **'Native'**

A Endemic

B Indigenous

C Genuine

D Foreign

Answer: D

72. **'Attenuate'**

A Contract

B Expand

C Mitigate

D Disable

Answer: B

73. **'Cajole'**

A Deceive

B Mislead

C Build up

D Bully

Answer: D

74. **Choose the correct synonym for the word below from the options provided.**
'consanguinity'

A Illegitimate

B Adoptive

C Nonbiological

D Kin

Answer: D

75. **Choose the word spelt correctly:**

A Demurrage

B Dimurrage

C Demurage

D Demerage

Answer: A

76. **From the option below,choose the word with the incorrect spelling:**

A Allotted

B Generous

C Deprive

D Prenicious

Answer: D

Instructions [77 - 78]

Which of phrases given below each sentence should replace the phrase printed in bold type to make the grammatically correct? If the sentence is correct as it is, mark 'd' as the answer.

77. **The long or short of it is that I do not want to deal with that new firm.**

A The long and short of it

B The long and short for it

C The long or short for it

D No correction required

Answer: A

78. **Most of the Indian workers are as healthy as, if not healthier than, British workers.**

A as if healthy as not healthier

B healthier but not as healthy

C as healthy, if not healthier

D No correction required

Answer: D

79. Choose the correct options for the given blanks.

You would _____ surprised to get this letter.

- A** doubtless be somewhat
- B** doubtlessly be somewhat
- C** somewhat doubtlessly be
- D** doubtlessly somewhat be

Answer: B

80. Choose the correct options for the given blanks.

If you had been a little more proactive, this golden opportunity would not have_____

- A** Escaped your fingers
- B** Slipped through your fingers
- C** Slipped through your head
- D** Escaped your hands

Answer: B

81. Choose the correct options for the given blanks.

Although the rival cricket team was quite competitive it did not _____ against our team of veterans.

- A** Stand a ground
- B** Stand a chance
- C** Stand a stead
- D** None of these

Answer: B

82. Choose the correct options for the given blanks.

I told him that I could invest some money in a joint venture with him, but as I was busy with my own projects I could only be a _____

- A** Visiting partner
- B** Half partner
- C** Sleeping partner
- D** Inactive partner

Answer: B

83. Choose the correct options for the given blanks.

We must always _____ people who indulge in anti-social activities.

- A** Steer clear of
- B** Stay away
- C** Stick out of
- D** Steer clear

Answer: C

84. Choose the correct options for the given blanks.

Are you telling the truth or just ____ ?

- A** Spinning a tale
- B** Spinning a yarn
- C** Spinning a story
- D** None of these

Answer: A

85. Choose the correct options for the given blanks.

There is a _____ amount of fatty acids and carbohydrates in some of the imported chocolates

- A** neglecting
- B** negligent
- C** negligible
- D** neglected

Answer: B

86. Choose the correct options for the given blanks.

Some people ____ themselves into believing that they are indispensable to the organisation they work for.

- A** force
- B** denigrate
- C** delude
- D** fool

Answer: C

87. Choose the correct options for the given blanks.

Many Tamil Speaking Sri Lankans _____ from the island to escape the military and its atrocities.

- A** flown

- B** flee
- C** fled
- D** flew

Answer: C

88. Choose the correct options for the given blanks.

These essays are intellectually ____ and represent various levels of complexity.

- A** revealing
- B** modern
- C** demanding
- D** superior

Answer: C

89. Choose the correct options for the given blanks.

How do you expect that country to progress when her government is corrupt, _____ and still largely feudal.

- A** devalued
- B** dwindling
- C** despotic
- D** demeaning

Answer: C

90. Choose the correct options for the given blanks.

The teacher must _____ the unique style of a learner in order to _____ it to desired knowledge.

- A** advocate _____ direct
- B** perpetuate _____ develop
- C** appreciate _____ focus
- D** absorb _____ maintain

Answer: C

91. Choose the correct options for the given blanks.

He was an _____ musician, had been awarded the George medal during the second world war and _____ with the title of Rai Bahadur .

- A** outstanding _____ popularise
- B** underestimate _____ declared
- C** accomplished _____ honoured
- D** impressive _____ assigned

Answer: C

92. Choose the correct options for the given blanks.

Management can be defined as the process of _____ organizational goals by working with and through human and non-human resources to _____ improve value added to the world.

- A getting _____ deliberately
- B managing _____ purposefully
- C targeting _____ critically
- D reaching _____ continuously

Answer: D

Instructions [93 - 98]

Read the following Passage and answer the questions below:

The World Trade Organisation (WTO) was created in the early 1990s as a component of the Uruguay Round negotiation. However, it could have been negotiated as part of the Tokyo Round of the 1970's, since that negotiation was an attempt at a 'constitutional reform' of the General Agreement on Tariffs and Trade (GATT). Or it could have been put off to the future, as the US government wanted. What factors led to the creation of the WTO in the early 1990s? One factor was the pattern of multilateral bargaining that developed late in the Uruguay Round. Like all complex international agreements, the WTO was a product of a series of trade-offs between principal actors and groups. For the United States, which did not want a new organization, the dispute settlement part of the WTO package achieved its long-standing goal of a more effective and more legal dispute settlement system.

For the Europeans, who by the 1990s had come to view GATT dispute settlement less in political terms and more as a regime of legal obligations, the WTO package was acceptable as a means to discipline the resort to unilateral measures by the United States. Countries like Canada and other middle and smaller trading partners were attracted by the expansion of a rules based system and by the symbolic value of a trade organization, both of which inherently support the weak against the strong. The developing countries were attracted due to the provisions banning unilateral measures. Finally, and perhaps most important, many countries at the Uruguay Round came to put a higher priority on the export gains than on the import losses that the negotiation would produce, and they came to associate the WTO and a rules-based system with those gains. This reasoning replicated in many countries - was contained in U.S. Ambassador Kantor's defense of the WTO, and it amounted to a recognition that international trade and its benefits cannot be enjoyed unless trading nations accept the discipline of a negotiated rules-based environment.

A second factor in the creation of the WTO was pressure from lawyers and the legal process. The dispute settlement system of the WTO was seen as a victory of legalists over pragmatists but the matter went deeper than that. The GATT, and the WTO, are contract organizations based on rules, and it is inevitable that an organization created to further rules will in turn be influenced by the legal process. Robert Hudec has written of the 'momentum of legal development', but what is this precisely? Legal development can be defined as promotion of the technical legal values of consistency, clarity (or, certainty) and effectiveness; these are values that those responsible for administering any legal system will seek to maximize. As it played out in the WTO, consistency meant integrating under one roof the whole lot of separate agreements signed under GATT auspices; clarity meant removing ambiguities about the powers of contracting parties to make certain decisions or to undertake waivers; and effectiveness meant eliminating exceptions arising out of grandfather-rights and resolving defects in dispute settlement procedures and institutional provisions.

Concern for these values is inherent in any rules based system of co-operation, since without these values, rules would be meaningless in the first place. Rules, therefore, create their own incentive for fulfillment. The momentum of legal development has occurred in other institutions besides the GATT, most notably in the European Union (EU).

Over the past two decades, the European Court of Justice (ECJ) has consistently rendered decisions that have expanded incrementally the EU's internal market, in which the doctrine of 'mutual recognition' handed down in the case Cassis de Dijon was a key turning point. The Court is now widely recognized as a major player in European integration, even though arguably such a strong role was not originally envisaged in the Treaty of Rome, which initiated the current European Union. One means the Court used to expand integration was the 'teleological method of interpretation' whereby the actions of member states were evaluated against 'the accomplishment of the most elementary community goals set forth in the Preamble to the [Rome] treaty.

The teleological method represents an effort to keep current policies consistent with stated goals, and it is analogous to the effort in

GATT to keep contracting party trade practices consistent with stated rules. In both cases legal concerns and procedures are an independent force for further co-operation. In large part, the WTO was an exercise in consolidation. In the context of a trade negotiation that created a near-revolutionary expansion of international trade rules, the formation of the WTO was a deeply conservative act needed to ensure that the benefits of the new rules would not be lost. The WTO was all about institutional structure and dispute settlement, these are the concerns of conservatives and not revolutionaries, which is why lawyers and legalists took the lead on these issues. The WTO codified the GATT institutional practice that had developed by custom over three decades, and it incorporated a new dispute settlement system that was necessary to keep both old and new rules from becoming a sham. Both the international structure and the dispute settlement system were necessary to preserve and enhance the integrity of the multilateral trade regime that had been built incrementally from the 1940s to the 1990s.

93. **What could be the closest reason why the WTO was not formed in the 1970s?**

- A** The US government did not like it.
- B** Important players did not find it in their best interest to do so.
- C** Lawyers did not work for the dispute settlement system
- D** The Tokyo round negotiations was an attempt at constitutional reform

Answer: B

94. **The most likely reason for the acceptance of the WTO package by nations was that**

- A** it had the means to prevent the US from taking unilateral measures.
- B** they recognized the need for a rule-based environment to protect the benefits of increased trade.
- C** it settles disputes more legally and more effectively.
- D** its rule-based system leads to export gains.

Answer: B

95. **According to the passage, WTO promoted the technical legal values partly through**

- A** integrating under one roof the agreements signed under GATT.
- B** rules that create their own incentive for fulfillment
- C** grandfather-rights exceptions and defects in dispute settlement procedures.
- D** ambiguities about the powers of contracting parties to make certain decisions.

Answer: A

96. **In the method of interpretation of the European Court of Justice**

- A** current policies needed to be consistent with stated goals
- B** contracting party trade practices needed to be consistent with stated rules.
- C** enunciation of the most elementary community goals needed to be emphasized.
- D** actions of member states needed to be evaluated against the stated community goals

Answer: D

97. In the statement ‘.... it amounted to a recognition that international trade and its benefits cannot be enjoyed unless trading nations accept the discipline of a negotiated rules-based environment’, ‘it’ refers to

- A Ambassador Kantor’s defence of the WTO
- B the higher priority on export gains placed by many countries at the Uruguay Round
- C the export gains many countries came to associate with a rule-based system
- D the provision of a rule-based system by the WTO.

Answer: C

98. The importance of Cassis de Dijon is that it

- A gave a new impetus to the momentum of legal development at the European Court of Justice.
- B resulted in a decision that expanded incrementally the EU’s internal market
- C strengthened the role of the Court more than envisaged in the Treaty of Rome.
- D led to a doctrine that was a key turning point in European integration.

Answer: D

Instructions [99 - 101]

Read the following Passage and answer the questions below:

A TED talk (the acronym stands for Technology, Entertainment, and Design) is one of the routes to academic stardom that didn’t exist a decade ago. (The 30th anniversary celebration aside, curators only began posting fame-making free online videos in 2006.) Although TED plays an inordinate role in setting the tone for how ideas are conveyed—not only because of the reach of its videos but also through spinoffs like regional “TEDx” events and the TED Radio Hour, one of the few places nonpolicy intellectuals get substantial on-air time—it’s just one of a number of platforms that are changing the ecology of academic celebrity. These include similar ideas-in-nuggets conclaves, such as the Aspen Ideas Festival and PopTech, along with huge online courses and—yes, still—blogs. These new, or at least newish, forms are upending traditional hierarchies of academic visibility and helping to change which ideas gain purchase in the public discourse. In a famous essay, “The Unbearable Ugliness of Volvos,” first published in the early 90s, the literary scholar Stanley Fish wrote that “the flourishing of the lecture circuit has brought with it new sources of extra income ... [and] an ever-growing list of stages on which to showcase one’s talents, and geometric increase in the availability of the commodities for which academics yearn, attention, applause, fame, and ultimately, adulation of a kind usually reserved for the icons of popular culture.” Fish was Exhibit A among professors taking advantage of such trends, and his trailblazing as a lit-crit celebrity inspired the dapper, globe-trotting lit theory operator Morris Zapp, a character in David Lodge’s academic satire *Small World*. But the world Fish was describing, where no one could live-tweet the lectures, let alone post the talks for worldwide distribution, now seems sepiatoned. “If David Lodge’s Morris Zapp were alive and kicking today,” observes John Holbo, an associate professor of philosophy at the National University of Singapore, and blogger at *Crooked Timber* and *the Valve*, “he’d be giving a TED talk, not an MLA talk. Which is to say: He wouldn’t be doing Theory. He probably wouldn’t be in an English department.

99. The passage is mainly about:

- A Technology, Entertainment, and Design
- B Turning over the conventional.
- C Gaining popular adulation.
- D Changing presentations.
- E Worldwide metamorphosis

Answer: B

100. The phrase "sepia-toned" implies :

- A** The end of an era.
- B** The way things were.
- C** The brown pigment.
- D** The time bound nature of things
- E** The decadence of ideas.

Answer: A

101. Which of the following cannot be inferred from the passage?

- A** TED is the future
- B** Theory can no longer be counted on.
- C** Philosophy is best understood through demos.
- D** TED is irreplaceable

Answer: D

Instructions [102 - 104]

In questions below, each passage consist of six sentences. The first and sixth sentence are given in the beginning. The middle four sentences in each have been removed and jumbled up. These are labelled as P, Q, R and S. Find out the proper order for the four sentences.

102. **S1: In the middle of one side of the square sits the Chairman of the committee, the most important person in the room.**

P : For a committee is not just a mere collection of individuals.

Q : On him rests much of the responsibility for the success or failure of the committee.

R : While this is happening we have an opportunity to get the 'feel' of this committee.

S : As the meeting opens, he runs briskly through a number of formalities.

S6: From the moment its members meet, it begins to have a sort nebulous life of its own.

The Proper sequence should be:

- A** RSQP
- B** PQRS
- C** SQPR
- D** QSPR

Answer: D

103. **S1: All the land was covered by the ocean.**

P : The leading god fought the monster, killed it and chopped its body in to two halves.

Q : A terrible monster prevented the gods from separating the land from the water.

R : The god made the sky out of the upper part of the body and ornamented it with stars.

S : The god created the earth from the lower part, grew plants on it and populated it with animals.

S6: The god moulded the first people out of clay according to his own image and mind.

The Proper sequence should be:

- A** PQRS
- B** PQSR
- C** QPSR
- D** QPRS

Answer: D

104. **S1: And then Gandhi came.**

P : Get off the backs of these peasants and workers, he told us, all you who live by their exploitation.

Q : He was like a powerful current of fresh air, like a beam of light, like a whirlwind that upset many things.

R : He spoke their language and constantly drew their attention to their appalling conditions.

S : He didn't descend from the top, he seemed to emerge from the masses of India.

S6: Political freedom took new shape and then acquired a new content.

The Proper sequence should be:

- A** QSRP
- B** SRQP
- C** RSQP
- D** PRSQ

Answer: B

Instructions [105 - 107]

In each of the following questions a related pair of words or phrases is followed by five lettered pairs of words or phrases. Select the lettered pair that best expresses a relationship that is least similar to the one expressed in the original pair.

105. **XENOPHOBIA : FOREIGNERS**

- A** claustrophobia : foreigners
- B** anglophobia : Englishmen
- C** bibliophobia : book
- D** hemophobia : blood

Answer: A

106. **SAIL : SHIP**

- A** propeller : dog
- B** radar : satellite
- C** hydrogen : balloon
- D** accelerator : car

Answer: A

107. **CANINE : DOG**

- A** feline : cat
- B** acquatic : parrot
- C** serpentine : cobra
- D** vulpine : fox

Answer: B

Instructions [108 - 110]

In each of the following questions there are sentences that form a paragraph. Identify the sentence(s) or part(s) of sentence(s) that is/are correct in terms of grammar and usage (including spelling, punctuation and logical consistency). Then, choose the most appropriate option.

108. **A. In 1849, a poor Bavarian imigrant named Levi Strauss.**
B. landed in San Francisco, California,
C. at the invitation of his brother-in-law David Stern.
D. owner of dry goods business.
E. This dry goods business would later became known as Levi Strauss & Company.

- A** B only
- B** B and C
- C** A and B
- D** A only
- E** A, B and D

Answer: A

109. **A. In response to the allegations and condemnation pouring in,**
B. Nike implemented comprehensive changes in their labour policy.
C. Perhaps sensing the rising tide of global labour concerns,
D. from the public would become a prominent media issue,
E. Nike sought to be a industry leader in employee relations.

- A** D and E
- B** D only
- C** A and E
- D** A and D
- E** B, C and E

Answer: D

110. **A. Charges and countercharges mean nothing.**
B. to the few million who have lost their home.
C. The nightmare is far from over, for the government.
D. is still unable to reach hundreds who are marooned.
E. The death count have just begun.

- A** A only
- B** C only
- C** A and C
- D** A, C and D
- E** D only

Answer: B

General Awareness

111. Which of the following is not correct with regard to RTI Act, 2005?

- A** An officer as public officer shall be designated to provide information to citizens by every public authority
- B** The Act provides for the penalty of upto Rs 25,000 on the public information officers if they fail to divulge the information sought by the citizen.
- C** The Act provides for setting up of central information and state information commission
- D** The information sought shall be made available within 90 days

Answer: D

112. Who estimated national income in India first?

- A** Dadabhai Naoroji
- B** R.C. Dutt
- C** V.K. R.V. Rao
- D** D.R. Gadgil

Answer: A

113. The banks are required to maintain a certain ratio between their cash in hand and total assets. This is called

- A** Statutory Bank Ratio (SBR)
- B** Statutory Liquid Ratio (SLR)
- C** Central Bank Reserve (CBR)
- D** Central Liquid Reserve (CLR)

Answer: B

114. Dwarf wheat (mexican) is introduced in India by

- A** Dr. N. E. Borlaug

- B** Dr. M.S. Swaminathan
- C** Dr. Subramanian
- D** Dr. B. P. Pal

Answer: A

115. Russian space craft established a new record by reaching the International Space Station (ISS) in only 6 hours, while earlier the space crafts used to take two or three days to reach the ISS. Which is this space craft ?

- A** Sputnik - II
- B** Soyuz
- C** Zond
- D** Venera

Answer: B

116. What contribution has been made by Ernest Binfield Havell (E.B. Havell) in the Indian art and culture?

- A** E.B. Havell was a official of East India company, whose efforts led to establishment of Asiatic Society
- B** E.B. Havell made efforts in establishing the Bengal school of art
- C** E.B. Havell was a famous indologist who translated several Sanskrit dramas in English
- D** E.B. Havell was a teacher at Pune who established the National Archives of India

Answer: B

117. The India Human Development award in association with UNDP instituted in

- A** 2010
- B** 2011
- C** 2012
- D** 2013

Answer: C

118. The book 'The Audacity of Hope' is written by

- A** Nayantara Sehgal
- B** Aravind Adiga
- C** Vikram Seth
- D** Barrack Obama

Answer: D

119. In which Olympic Games, Hockey was introduced for the first time

- A** London, 1908
- B** Stockholm, 1912
- C** St. Louis, 1904
- D** Paris, 1900

Answer: B

120. Larry page and Sergey Brin are well known as

- A** Creators of Bluetooth device
- B** Founders of Google
- C** Stem cell researchers
- D** Scientists

Answer: B

121. Environmental Kuznets curve

- A** a semi-circle curve suggesting increase in per-capita income increases the pollution
- B** a U-shaped curve suggesting the level of development and carbon emission
- C** suggest a U-shaped relationship between the carbon emission and Ozone layer depletion
- D** suggest a bell-shaped relationship between the concentration of certain pollution emission and per-capita real GDP

Answer: D

122. Which of the following are correctly matched?

1. Viena : protection convention : of ozone layer
2. Stockholm : Hazardous wastes convention and their disposal
3. Rotterdam : Hazardous convention chemicals
4. Basel : persistent organic convention pollutants

- A** 1 and 2
- B** 1 and 3
- C** 2, 3 and 4
- D** 1, 2 and 4

Answer: B

123. Which of following statement is true about the Primary deficit?

- A** It is difference between Revenue Receipts and Revenue Expenditure
- B** It is difference between Capital Receipts and Interest Payment
- C** It is difference between the Fiscal Deficit and Interest Payment
- D** It is addition of Fiscal Deficit and Interest Payment

Answer: C

124. **The slogan of 'poverty abolition' was given in which Five Year Plan?**

- A** Second plan
- B** Fourth plan
- C** Fifth plan
- D** Sixth plan

Answer: C

125. **REDD Plus Programme is concerned with which of the following ?**

- A** Nuclear Non-Proliferation Treaty (NPT)
- B** Convention on Biological Diversity (CBD)
- C** Millennium Development Goals (MDG)
- D** Earth Summit

Answer: B

126. **Which is the largest stock exchange in the world ?**

- A** The New York Stock Exchange (NYSE)
- B** The Swiss Stock Exchange (SWX)
- C** The London Stock Exchange (LSE)
- D** The National Stock Exchange (NSE)

Answer: A

127. **Between which two countries was the battle of Stalingard fought in 1942-43 ?**

- A** Russia and Germany
- B** Russia and Japan
- C** Germany and Italy

D Italy and Russia

Answer: A

128. **International Day for Disaster Reduction is observed on**

A 9th August

B 13th October

C 24th November

D 11th December

Answer: B

129. **Name the India-China joint military exercise that started in Pune recently?**

A Surya-Kiran 2014

B Hand-in-Hand 2014

C Mitra-Maitri 2014

D Yudh Abhyas 2014

Answer: B

130. **What would you study if you were a speleologist ?**

A Mineral deposits

B Tress

C Birds

D Caves

Answer: D

131. **In a swap transaction where two fixed-floating currency swaps are combined to form a fixed to fixed currency swap is known as**

A Roller-coaster swap

B Amortized swap

C Amortizing swap

D Circus swap

Answer: D

132. **In monetary terminology, what is called the 'monetary base' or 'high powered money' ?**

A the total assets of RBI

B the total liability of RBI

- C** the total debt of the government
- D** the total foreign exchange of RBI

Answer: B

133. Which is considered as the mother of all Central Banks ?

- A** Bank of England
- B** Risks Bank of Sweden
- C** Federal Reserve Bank
- D** Reserve Bank of India

Answer: A

134. The catch-line 'American dream, Indian soul' was of the film....?

- A** American Desi
- B** Aa Ab Laut Chalein
- C** Indian
- D** Pardes

Answer: D

135. The words 'secular' and 'socialist' were added to the Indian Constitution in 1976 by amending the

- A** All of the above
- B** Directive Principles
- C** Preamble
- D** Fundamental Rights

Answer: C

136. Who declared that his ultimate aim was to wipe 'every tear from every eye'?

- A** Rajendra Prasad
- B** Sardar Patel
- C** Jawaharlal Nehru
- D** Mahatma Gandhi

Answer: D

137. Amnesty International is an organisation associated with which of the following fields ?

- A** Protection of Cruelty to animals
- B** Environment protection
- C** Protection of human rights
- D** Protection of historic monuments

Answer: C

138. **Google's main shopping service is called**

- A** Froggle
- B** Cragle
- C** Doudle
- D** Ibibo
- E** Google+

Answer: A

139. **The branch of medical science which is concerned with the study of disease as it affects a community of people is called**

- A** epidemiology
- B** oncology
- C** paleontology
- D** pathology

Answer: A

140. **Which of the following ports of system unit can be used to attach an external storage media/peripheral devices ?**

- A** VGA port
- B** USB port
- C** Parallel port
- D** Serial port

Answer: B

141. **This personality is the father of radio science and has pioneered Bengali science fiction in the country. He invented the crescograph, a device that measures growth in plants. Identify him.**

- A** Homi Bhabha
- B** Jagadish Chandra Bose
- C** CV Raman

D Govind Khurana

Answer: B

142. The Union Cabinet approved signing of three SAARC agreements that is to be signed at 18th SAARC Summit scheduled to be held recently. Which one of the following is not one of the SAARC agreements ?

- A** SAARC Regional Railways Agreement
- B** SAARC Motor Vehicles Agreement
- C** SAARC Framework Agreement for Energy Cooperation (Electricity)
- D** SAARC Inter governmental Transport Connectivity

Answer: D

143. The scientific term Fallstreak Hole Cloud was in news recently because

- A** It appeared in the sky cover Gippsland in eastern Victoria of Britain
- B** It appeared in the sky over Gippsland in eastern Victoria of Burma
- C** It appeared in the sky over Gippsland in eastern Victoria of Australia
- D** It appeared in the sky over Gippsland in eastern Victoria of New Zealand

Answer: C

144. Hyderabad recently found an intelligent way to manage the traffic problems in the city in a smart way by using H-TRIMS. What is the full form of H-TRIMS?

- A** Hyderabad Traffic Integrated Maintenance System
- B** Hyderabad Traffic Integrated Management System
- C** Hyderabad Traffic Integrated Manipulation System
- D** Hyderabad Traffic Inked Management System

Answer: B

145. Which international organisation recently passed a resolution of sports autonomy and sports as means to promote peace and development ?

- A** International Olympic Committee
- B** Commonwealth Games Federation
- C** United Nations
- D** Asia-Pacific Economic Cooperation

Answer: C

146. **Liberty Medal is annually given to honour men and women of courage and conviction who strive to secure the blessings of liberty to people around the globe. It was established in ?**

- A** 1987, to commemorate the bicentennial of the US Constitution
- B** 1988, to commemorate the bicentennial of the US Constitution
- C** 1990, to commemorate the bicentennial of the US Constitution
- D** 1997, to commemorate the bicentennial of the US Constitution

Answer: B

147. **The Union Commerce Ministry recently cancelled approvals of nine special economic zones (SEZs).**

- I. Hindalco Industries**
 - II. Chennai Business Park**
 - III. Essar Jamnagar**
 - IV. Adani Townships and Real Estate Company**
- Which option is correct?**

- A** I, II and III
- B** I, III and IV
- C** II and III
- D** I, II, III and IV

Answer: D

148. **World Wildlife Fund on released the Living Planet Report 2014. In this context, consider the following statements**

- I. The theme of the report is Species and Spaces, People and Places.**
 - II. Populations of fish, birds, mammals, amphibians and reptiles have declined by 52 percent since 1970**
 - III. Freshwater species have declined by 76 percent**
 - IV. The report's measure of humanity's Ecological Footprint is provided by the Global Footprint Network**
- Which is/are correct?**

- A** I, II and III
- B** I, III and IV
- C** II and III
- D** I, II, III and IV

Answer: D

149. **Vanbandhu Kalyan Yojana (VKY) was launched by Union Ministry of Tribal Affairs to**

- A** Lift human development indices of tribal people
- B** ensure that forest dwellers are not deprived of their due
- C** promote Tribal language
- D** establish a National Research Centre in the Tribal Research Institute

Answer: A

150. **Name the player who won the IBSF World Billiards Championship in 2014.**

- A** Ashok Mehta
- B** Geet Sethi
- C** Pankaj Advani
- D** None of these

Answer: C