SNAP 2015

General Awareness

1. **The full form of CSIRO is**

A Comprehensive Scientific and Industrial Research Organization

B Cross-cultural Scientific and Industrial Research Organization

C Commonwealth Scientific and Industrial Research Organization

D Council of Scientific and Industrial Research Organization

Answer: C

2. **The full form of UNRISD is**

A United Nations Research Institute for Soviet Development

B United Nations Research Institute for Scientific Development

C United Nations Research Institute for Socio-economic Development

D United Nations Research Institute for Social Development

Answer: D

3. **Bhaona is a presentation of the Ankia Naat of Assam. In Bhaona the cultural glimpses of _____ is/ are reflected.**

A Assam and Orissa

B Bengal

C Mathura and Brindavan

D All of the above

Answer: D

4. **Under which Act does the Archaeological Survey of India (ASI) protect monuments, sites and remains of national importance ?**

A AMASR Act, 1958

B AMASR Act, 1968

C AMASR Act, 1978

D AMASR Act, 1948

Answer: A

5. **In 2015 the President of India approved conferment of Padma Awards to all of the following but for _____**

A Kharag Singh Valdiya

B Mohammad Yusuf Khan

C Lakshmi Gopala Naidu

D Saichiro Misumi

Answer: C

6. **In Grammy Awards 2015 the best folk album was won by _____**

A Pharrell Williams - "Happy"

B Old Crow Medicine Show - Remedy

C Rosanne Cash - The River & the Thread

D None of the above

Answer: B

7. **Scientists discovered a new species in the human family tree which is a small creature with a tiny brain. The new species has been named as _____**

A Homo Naledi

B Dwarf Sapein

C Dwarf Homo Sapein

D None of the above

Answer: A

8. **The ministry of external affairs has recently decided to change the nomenclature of Indian Based Domestic Assistance (IBDA) to _____**

A Government Serving Based Domestic Assistance (GSBDA)

B Swadesh Swatcha Domestic Assistance (SSDA)

C Service Staff (SS)

D Bharath Based Service Assistance (BBSA)

Answer: C

9. **The foreign exchange reserve of India consists of _____**

A The foreign currency assets held by RBI and the gold holding of RBI

B The gold holding of RBI and special drawing rights

C The gold holding of RBI, the foreign currency assets held by RBI and special drawing rights

D Only the foreign currency assets held by RBI

Answer: C

10. **_____ is a charge for converting bullion into coins where free coinage is permitted. This charge is equal to the cost of bullion to coins transformation.**

A Bull-Coin

B Brassage

C Bit Coin

D Coin Levy

Answer: C

11. **Microsoft introduced several new products for education customers, this includes a notetaking app called _____**

A Office Note classroom

B Micro Note class Notebook

C Soft note for classroom

D One Note class Notebook

Answer: D

12. **The National Merit Scholarship Scheme, which provided financial assistance to meritorious students from Class XI to Post-Graduation level in Government Schools/Colleges/Universities has been discontinued from the year _____**

A 2009

B 2008

C 2007

D None of the above

Answer: C

13. **The Symbol used for reusable microwaveable plastic ware is _____**

1. 

2. 

3. 

4. 

A 1

B 2

C 3

D 4

Answer: B

14. **The agency that estimates national income in India is**

A RBI

B Central Statistics Organisation

C Planning commission

D Central Statistic Organisation

Answer: B

15. **Super Blood Moon, which is a rare astronomical phenomenon hasn't happened since _____, and won't happen again until _____**

A 1982 , 2033

B 1980 , 2035

C 1978 , 2032

D 1975 , 2031

Answer: A

16. **The galaxy _____ was initially discovered with NASA's Spitzer Space Telescope in infrared light and is believed to be at least 9 billion years old.**

A ANDROMEDA

B COSMOS REDSHIFT

C SAGE0536AGN

D SUNFLOWER

Answer: A

17. **In the year 2014 Facebook bought Whatsapp for _____ US Dollars.**

A 17 billion

B 18 billion

C 19 billion

D 20 billion

Answer: C

18. **Shri Narendra Modi was sworn in as the Prime Minister of India on _____ at the Rashtrapati Bhavan in New Delhi.**

A 25^{th} May 2014

B 19^{th} May 2014

C 26^{th} May 2014

D 27^{th} May 2014

Answer: C

19. **Where is the doldrums belt located ?**

A Near the Equator

B Near the Poles

C Near the Tropic of Cancer

D Near the Tropic of Capricorn

Answer: A

20. **The air quality in Singapore deteriorated to a hazardous level in September 2015, forcing the city-state to shut its schools for the first time in 12 years. This was due to**

A Haze created mainly due to companies in Malaysia

B Haze created mainly due to companies in Indonesia

C Haze created mainly due to companies in Philippines

D Haze created mainly due to companies in Vietnam

Answer: A

21. **In 1347 during the reign of Muhammed Tuglak an Afghan officer named _____setup an independent kingdom called Bahmani Kingdom.**

A Mahmud Gawan Bahmani

B Mohammad Yusuf Bahmani

C Hasan Gangu Bahmani

D Khwaja Tuglak Bahmani

Answer: C

22. **The task of consolidating Mughal Kingdom was left to Akbar who was only _____ years old at the time of his accession of the throne.**

A Eleven Years

B Twell Years

C Thirteen Years

D Fourteen Years

Answer: C

23. **Smoking in public places was prohibited nationwide from _____**

A 15th August 2008

B 2nd October 2008

C 15th August 2009

D 2nd October 2009

Answer: B

24. **A constitutional right can be _____ recognized and established by a sovereign State or union of States.**

A a prerogative or a duty or a restraint of power

B a prerogative or a duty, a power or a restraint of power

C a prerogative or a duty, a power but not a restraint of power

D a power but not a prerogative or a duty

Answer: B

25. **In Nepal the festival of lights i.e. Diwali is celebrated by some Buddhists as _____**

A Tihar

B Swanti

C Both options a and b

D Neither of the options above

Answer: C

26. **The term "Vrajapati" used in Indian Mythology denoted _____**

A The Head of the Village

B The Head of the Family

C The Head of a Society

D The Head of a City

Answer: A

27. **One of India's most distinguished constitutional lawyers who had received brickbats for arguing in favor of Dow Chemicals in the Bhopal gas disaster case is _____**

A Ram Jethmalai

B Fali Nariman

C Mukul Rohatgi

D Pramila Nesargi

Answer: B

28. **The Nobel Peace Prize winner who gave up .freedom and a life with her family in Britain, to protest against the military rule at another country, who is also the Chair of the National League for democracy is _____**

A Angela Merkel

B Christine Lagarde

C Brito Polman

D Aung San Suu Kyi

Answer: D

29. **In September 2015 it was revealed that is the country which was exporting drone components worth hundreds of millions to countries that include Saudi Arabia and South Korea, to regain lost ground in a global arms race.**

A France

B United Kingdom

C Japan

D USA

Answer: B

30. **In the Indian general assembly elections 2014 the BJP-led NDA won _____seats out of_____ Lok Sabha seats that were announced**

A 335546

B 334545

C 336543

D 331544

Answer: C

31. **The BS EN 16001 solutions from BSI is applicable for**

A Energy Management Systems

B Environment Management Systems

C Energy Process Systems

D Environment Standard Systems

Answer: A

32. **The WEEE (Waste from Electrical and Electronic Equipment) is a directive that controls _____**

A how electric and electronic equipment is handled and recycled

B how electric and electronic equipment is manufactured and handled

C how electric and electronic equipment is recycled

D how electric and electronic equipment is manufactured, handled and recycled

Answer: C

33. **The Sensex and Nifty are both indices. The base years for the BSE Sensex and Nifty are_____ and _____ respectively.**

A 1980-81 and 1990

B 1990-91 and 2000

C 1978-79 and 1995

D 2000-01 and 2004

Answer: C

34. **The artist who painted Irises, Sunflowers, Red Poppies, Pink Roses was _____**

A Vincent van Gogh

B Sandro Botticelli

C Leonardo da Vinci

D Michelangelo

Answer: A

35. **Which Indian satellite was launched that has a fantastic timing and records 1000th of a second ?**

A GSAT - 16

B IRNSS - ID

C GSAT - 6

D Astrosat

Answer: C

36. **W3C stands for _____**

A Triple Web Consortium

B Triple Web Consolidation Council

C World Wide Web Consortium

D World Wide Web Company

Answer: C

37. **The country/countries that has/have resorted to Quantitative easing in the last decade is/are**

A United States of America

B United Kingdom

C Japan

D All of the above

Answer: D

38. **Who is the Indian badminton player who after spending an year after his shoulder injury earned a final appearance at the Korean Open in 2015 ?**

A Chetan Anand

B AjayJayaram

C Parupalli Kashyap

D Sameer Verma

Answer: B

39. **Tamaasha, the traditional folk theatre form of Maharashtra has evolved from the folk forms of**

A Gondhal, Jagran and Kirtan

B Only Kirtan

C Only Gondhal, Jagran

D Only Gondhal

Answer: A

40. **The last series of wall painting in India are from near Hindupur belonging to 16th century A.D.**

A Lepakshi temple

B Shiva temple

C Sri Venkateswara Swami Temple

D Ganesh Temple

Answer: A

Reasoning

41. **A bungalow has one of its room located on the first floor and there are three identical 100 watt electrical bulbs fixed in the room. Each bulb is connected to a specific switch located at the basement. There are only three switches in the basement. All the bulbs are switched off at present and you are also at the basement area. The first floor cannot be seen from the basement area. If you are allowed to use your common prudence, what is the minimum number of times that you will have to go from basement to first floor to identify which switch goes to which bulb?**

A 3 times

B 20 times

C 1 time

D 6 times

Answer: C

Explanation:
Given that there are 3 bulbs and 3 switches.

First, we switch on the first switch and switch it off after some time. And then switch off the second switch and check the basement

The bulb which is off but a little bit warm corresponds to switch 1. The on bulb corresponds to switch 2 and remaining 1 is connected to switch 3.

Hence we need to check only once

42. **Shyam is running a start-up. His initial investments are high and he is trying hard to manage and increase his cash flow. The sundry expenses that his firm incurs is negligible. He found from his accountant that the amount of pre-paid expenses in the balance sheet,**
which were booked from the previous year to the current year was increased. Shyam also ensured that his cash funded by the venture capitalists did not reduce when compared to the previous year. The interest that he gets from his fixed deposits increases, which is in tune with his sundry expenses. The final effect on cash for this year would be _____.

A Cash flow marginally increases

B Cash flow exponentially increases

C Cash flow remains the same

D None of the above

Answer: D

Explanation:
Cashflow is determined by other factors also like sales, expenditure. Moreover, it is not given how much increase sundry expense is actually there. So we can't comment on the cash flow

43. **A producer of a drama theatre is creating his weekend schedule. The producer has six plays to choose from: "Made in India", "Laugh for a while", "The Life is your choice", "MBA - Maha Budhiman Aadmi", "Placements -my goal", "MBA Go Getters". The producer sets a schedule based upon the following criteria.**

    I. "Made in India" must be shown before "The Life is your choice" and "Laugh for a while"
    II. "Laugh for a while" must be shown before "MBA - Maha Budhiman Aadmi"
    III. "Placements - my goal" must be shown after "The Life is your choice" and "MBA Go Getters"
    Which of the following weekend schedules are consistent with the producer's criteria ?

A Made in India, Laugh for a while, The Life is your choice, MBA - Maha Budhiman Aadmi, Placements - my goal and MBA Go Getters.

B MBA Go Getters, Made in India, Laugh for a while, The Life is your choice, Placements - my goal and MBA - Maha Budhiman Aadmi.

C Made in India, MBA Go Getters, Placements - my goal, Laugh for a while, MBA - Maha Budhiman Aadmi and The Life is your choice.

D Made in India, MBA Go Getters, MBA - Maha Budhiman Aadmi, The Life is your choice, Placements - my goal and Laugh for a while

Answer: B

Explanation:
option 1 is incorrect as in this "Placements - my goal" is shown before "MBA Go Getters" which is against condition 3.
option 3 is incorrect as in this "Placements - my goal" is shown before "The Life is your choice" which is against condition 3.
option 4 is incorrect as in this "Laugh for a while" is shown after "MBA - Maha Budhiman Aadmi" which is against condition 2
Hence option 2 is correct which is satisfying all the conditions.

44. **Mr. Peter gave his eldest son David a bag with 1000 gold coins. David took 230 gold coins from the bag and gave the rest to his younger brothers John, Joe and Jonathan, and advised them to distribute the balance left in the bag amongst themselves in proportion to their age which together amounted to 17.5 years. After a lot of deliberation and discussion John, Joe and Jonathan came to a conclusion to distribute the gold coins. Their methodology was as follows: As often John took 4 gold coins, Joe took 3. As often John took 6 gold coins Jonathan took 7. What was the age of John, Joe and Jonathan ?**

A 6 years, 4.5 years and 7 years respectively

B 5 years, 5.5 years and 7 years respectively

C 6 years, 5 years and 6.5 years respectively

D 5 years, 6.5 years and 6 years respectively

Answer: A

Explanation:
BY using their methodology, we can create a table as:

John	Joe	Jonathon
4	3	
6		7

Now, if we distribute 12 coins to John, we will have the following gold coins for the rest using the ratio mentioned above:

John	Joe	Jonathon
4	3	
6		7
12	9	14

The given ratio, 12:9:14 is also the ratio of their ages.

For the sum of their ages to be 12+9+14=35 years, Age of John, Joe and Jonathon are 12, 9 and 14 years respectively.

So, if the sum of their ages amount to 17.5 which is half of 35,

their ages will be 6, 4.5 and 7 years respectively

45. **Mohan has an antique clock which strikes and makes loud gong sound every hour. It strikes the exact number of times indicating the time of the day or night. His clock takes seven seconds to strike Seven O' clock, how many seconds will his clock take to strike Eleven O'clock?**

A 11.22222227 seconds

B 11 seconds

C 11.66666667 seconds.

D None of the above

Answer: C

Explanation:
After making the first gong, it has a gap of 6 time periods to complete the 7 gongs.

In other words, let us assume that at t=0, the first loud gong took place at 7 O' clock. After a period of 6 equal time periods, all the 7 gongs were made.

So, 6 time period= 7 seconds.

1 Time period= $\frac{7}{6}$ sec

Similarly, at 11 O' clock, after the first gong, the remaining 10 gongs will sound at an interval of 10 equal time periods.

So, time taken= $10 \times \frac{7}{6}$ sec= $\frac{70}{6}$ sec $= 11.67$ seconds.

46. **Find the missing number : 2, 6, 20, 42, 110 _____**

A 126

B 156

C 176

D 196

Answer: B

Explanation:
The pattern is followed as:

Prime numbers multiplied by a number before that, i.e.,

2*1, 3*2, 5*4, 7*6, 11*10

So, the next number has to be 13*12, which is 156.

47. **Fifteen years back, Ms. Kalpana had three sons Ramesh, Suresh and Rajesh. The sum of the age of Ramesh, Suresh and Rajesh was equal to half of the age of their mother. It was during the next five years when Mahesh was born. Then the age of Ms. Kalpana was equal to the sum of the ages of all her children. Time went on and years passed and Dinesh was bom and age of Ramesh equaled the sum of the ages of Rajesh and Mahesh. Now, it so happened that the sum of the ages of Ramesh, Suresh, Rajesh, Mahesh and Dinesh was double the age of their mother and was also equal to the sum of the ages of Suresh and Ramesh. Also Ramesh's age was equal to sum of the ages of Mahesh and Dinesh. What is the age of Ms. Kalpana?**

A 39 years

B 42 years

C 41 years

D none of the above

Answer: A

Explanation:
Let G, S, R & N be their ages 15 years back. Let Amit & Keshav be born

after x & y years, Thus their ages after 15 years can be written as

Ax & K - y respectively. Thus the following equations are formed:
G = 2 (S + R + N)……..(1)
2(G + 15) = (S + 15) + (R + 15) + (N + 15) + {A + (15 x)}+ {K + (15 - y) }.....(2)
S + 15 = {A + (15 - x)}+ {K + (15 - y)}.....(3)
G + 15 = (S + 15) + (R + 15).....(4)
Substituting equation 3 in 2 & then equation 4 in the new equation formed, we get R = N. Thus G = 24.
Therefore G's present age is 24 + 15 = 39 years.

48. **Find the missing number: -1, 0, 0, ____, 8**

A 1

B 2

C 3

D 4

Answer: B

49. **Ceiling Fan : Table Fan :: abcdefg :**

A abcdefg

B abcdgfe

C gfedcba

D None of these

Answer: C

Explanation:
Ceiling fan is at the the top of the room, and table fan is at the bottom part of the room. So, the analogy is that of opposite places.

So, abcdefg can best be represented as gfedcba

Instructions [50 - 51]

There is a statement followed by two arguments. Choose the correct option which gives the decision on the arguments, which is derived from the statement.

50. **Given Statement: The new amendment of Corporate Social Responsibility (CSR) in India refers to bringing an overall positive impact on the communities, cultures, societies and environments. The fundamentals of CSR rest on the fact that not only public policy but even corporate should be responsible enough to address social issues.**

    Argument I: Government should not enforce companies to take up CSR.
    Argument II: Companies moral responsibility is to take up CSR for a long run benefit.

A Argument II is correct but Argument I is wrong

B Argument I is correct but Argument II is wrong

C Both the arguments are false

D Both the arguments are correct

Answer: A

51. **LPG subsidy is a stand taken by the government. Linking of Aadhar card to a bank account has been made mandatory for receiving the subsidy.**
Argument I: All people should give up LPG subsidies.
Argument II: To fill the gap between poor and rich.

A Argument II is the output of Argument I

B Argument I is a byproduct of Argument II

C Argument I and Argument II are complementing to each other

D No logical link between Argument I and Argument II

Answer: D

Explanation:
The premise of the question revolves around LPG subsidy being introduced by the government and that in order to receive the subsidy, Linking of Aadhar card to bank account has been made mandatory.

Argument 1 is out of scope as giving up LPG subsidy is not even close to the premise.

Argument 2 also falls under the same category, as there is no mention about the rich and poor in the premise.

Also, when we consider the two arguments together, there is no logical link between the two. So, option D.

52. **If CAB is coded as 723 - 5 58 in a coded language then how will DAD be coded ?**

A 4023 -5 4023

B 4090 -5 4090

C 1024 -5 1024

D 1246 -5 1189

Answer: B

Explanation:
As per the CAB code, A is coded as 5 and should be the same in case of A in DAD.

For C in the CAB, C is the third letter in the English Alphabet.

So, 1) $3^2 = 9$

2) $9^3 = 729$

3) 729-6= 723.

These 3 steps are followed to find the code of C.

If we cross check with B, the second alphabet,

1) $2^2 = 4$

2) $4^3 = 64$

3) 64-6= 58- Which is how B is coded.

So, for D- the fourth alphabet, we have

1) $4^2 = 16$

2) $16^3 = 4096$

3) 4096-6= 4090.

So, Option B is the correct one.

53. **If MONEY is coded as 144 200 171 0 600 then DOLLAR is coded as _____**

A - 9 200 119 119 - 24 299

B - 8 200 106 106 - 20 200

C 122 200 102 102 10 154

D 120 200 101 101 08 156

Answer: A

Explanation:
MONEY is coded as 144 200 171 0 600
M = 144 = 13^2-25
O = 200 = 15^2-25
N =171 = 14^2-25
E =0 = 5^2-25
Y = 600 = 25^2-25
So similarly following for Dollar
we get
D= 16-25
O = 225-25
L =144-25
A =1-25
R = 324-25
We get DOLLAR as - 9 200 119 119 - 24 299

54. **There are 100 MBA aspirants in a classroom and 99% of them are engineers. How many engineers must leave the classroom in order to reduce the percentage of engineers in the classroom to 98% ?**

A 1

B 2

C 50

D 90

Answer: C

Explanation:
99% of 100 students are engineers means that there are 99 engineers.

Let 'k' be the no. of engineers who leave.

no. of engineers now = 99-k

total no. of students now = 100-k

So, (99-k)/(100-k) = 0.98

=> 99-k = 0.98(100-k)

=> 0.02*k = 1

=> k = 50

55. **Vikas was showing a photograph to his friend and pointed to a boy and told the following statement "His name is Atul and his maternal grandfather's brother is my maternal grandfather's sister's son." How is Atul related to Vikas ?**

A They are brothers

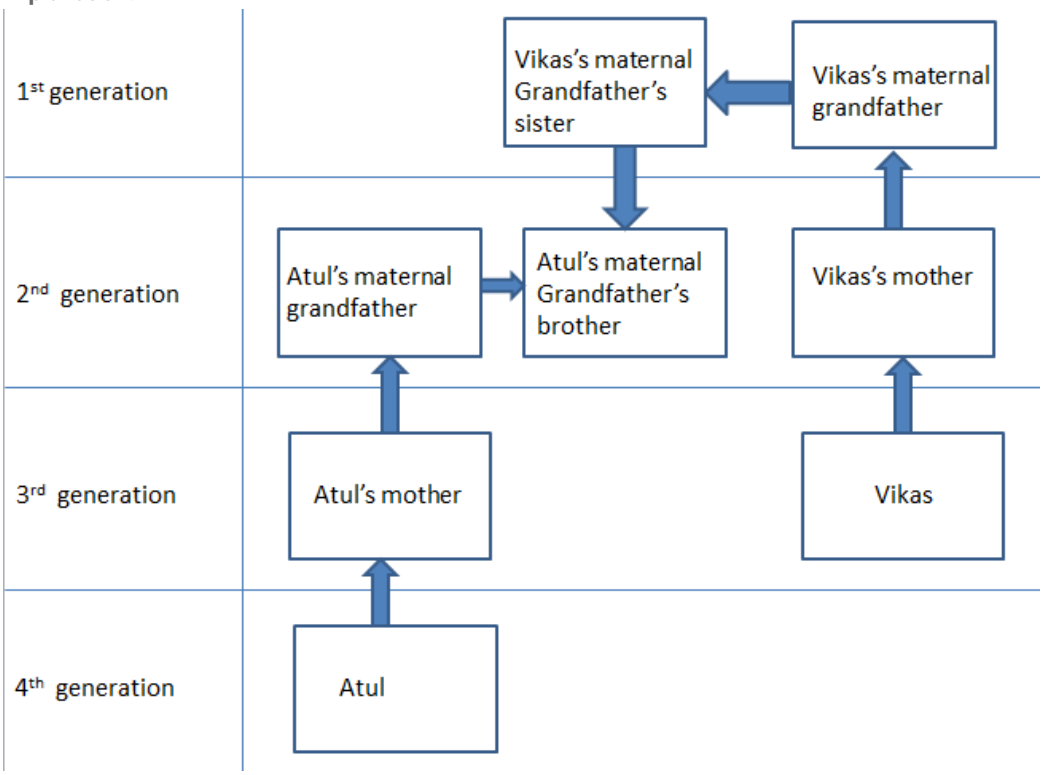
B Vikas is the uncle of Atul

C They are distant cousins

D None of the above

Answer: B

Explanation:



So, we can clearly see that Vikas is Atul's uncle.

56. **There was a party organized and the following members attended the party : Sheela, Amruta, Rohit, Rahul, Ajey, Ranveer and Gauri. Sheela is mother-in-law of Amruta, who is sister-in-law of Rohit. Rahul is the father of Ajey. Ajey is the brother of Rohit. Ranveer is the only brother of Rahul and the father-in-law of Gauri. Gauri was married to Rohit. How is Sheela related to Ranveer ?**

A cousin

B mother

C sister

D none of the above

Answer: D

Explanation:

If Sheela is the mother-in-law of Amruta and Amruta is the sister-in-law of Rohit, this means that Sheela is the mother of Rohit .

If Ranveer is the father-in law of Gauri and Gauri is married to Rohit, this means that Ranveer is the father of Rohit.

Therefore, we can understand that **Sheela is the wife of Ranveer** .

Instructions [57 - 60]

sing the information given below answer the questions:

A chef is trying a recipe for a tasty ice cream using four ingredients. He can choose from three liquids for taste which are labeled A, B

and C which are stable in nature and the choice for flavor can be from four liquids which are labeled W, X, Y and Z. For the new ice cream recipe to be tasty, there must be two liquids from the taste giving liquids. Also certain liquids cannot be mixed because of their reactions which makes it unhealthy for human consumption and the same is given below B cannot be mixed with W C cannot be mixed with Y Y cannot be mixed with Z

57. **If the chef calculated that Y is the most important flavor and must be used in the recipe, which other ingredients must be part of the recipe ?**

A A, B and W

B A, B and X

C A, B and Z

D B, C and X

Answer: B

Explanation:
If Y has to be used, C has to be removed. This means that A and B must be used. Now that B has to be used, we cannot use W.

Option B is the correct answer.

58. **'If the chef rejected B because of its possible side effects but decided to use Z, which is a possible combination of the four ingredients in the recipe ?**

A A, C, W and Z

B A, X, Y and Z

C A, W, X and Z

D A, C, Y and Z

Answer: A

Explanation:
If chef rejects B, then he has to use A and C together. Options 2 and 3 can already be eliminated. Now, C cannot be used with Y. So, option 4 is also eliminated.

Option 1 is a possible combination.

59. **Which of the following combination of liquids is impossible ?**
I. Using Y and W together
II. Using B and C together
III. Using W, X and Z together

A I only

B II only

C III and I only

D II and I only

Answer: C

60. **Which of the following must always be true ?**
I. If C is used W must be added
II. If Y is used B must be added
III. If C is not used W cannot be added

A I and II only

B II and III only

C I, II and III only

D II only

Answer: B

Explanation:
Let us analyze statement 1:

If C is used with B, we cannot add Y and W because of the unhealthy effects stated. But we can use X and Z.

∴ Statement 1 is not always true.

Let us analyze statement 2:

If Y is used, we cannot use C for health reasons. But since we have to use 2 taste giving liquids, B has to be used with A.

∴ Statement 2 is always true.

Let us analyze statement 3:

If C is not used, we have to use A and B together and B cannot be mixed with W.

∴ Statement 3 is always true.

61. **Which letter from the options given will replace the " ? " in the table given below**

CAT	389376	DOG
RAT	1758276	MAT
CAB	15876	FAN
CAN	571536	?

A MAN

B GIFT

C PAN

D SOFT

Answer: B

Explanation:
We have
CAT 389376 DOG
Now CAT = 3+1+20 =24
24^2 =576
DOG =4+15+7 =26
26^2 =676
Now (576)(676) = 389376
Now following the same pattern :
CAN = 3+1+14 =18
18^2 =324
Now 571536/324 = 1764
Now $\sqrt{1764} = 42$
= GIFT (7+9+6+20)

62. **Which word from the given options will replace the “?” in the table given below**

WOE	1089	MISERY
VANQUISH	1308	SUBDUE
TACITURNITY	1547	SILENCE
SPLEEN	1806	?

A MALEVOLENCE

B JOIN

C LINK

D DRIP

Answer: D

63. **Which word from the given options will replace the " ? " in the table given below**

MBA	728	NCB
BCA	24	CDB
BCS	24	CDT
FCA	?	GDB

A 48

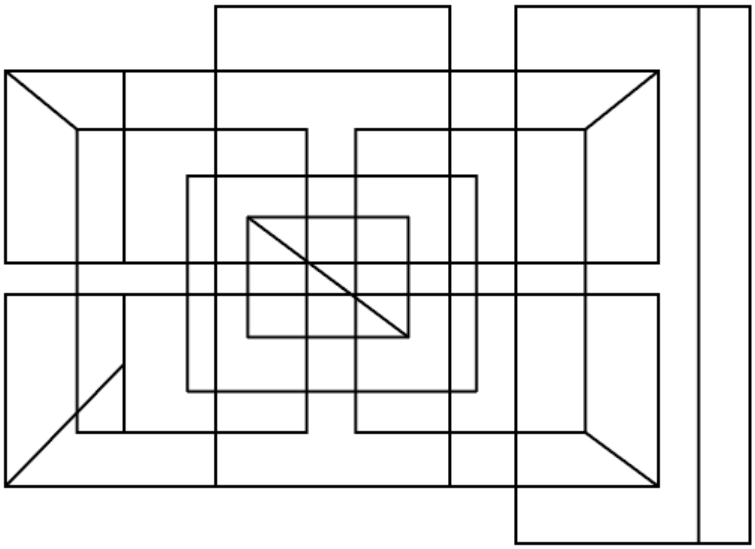
B 168

C 64

D 132

Answer: D

64. **What is the least number of straight lines needed to draw the following diagram?**



A 39

B 40

C 42

D none of the above

Answer: A

Explanation:
Count a line as one line as long as it is continuous even if there are other lines intersecting it.

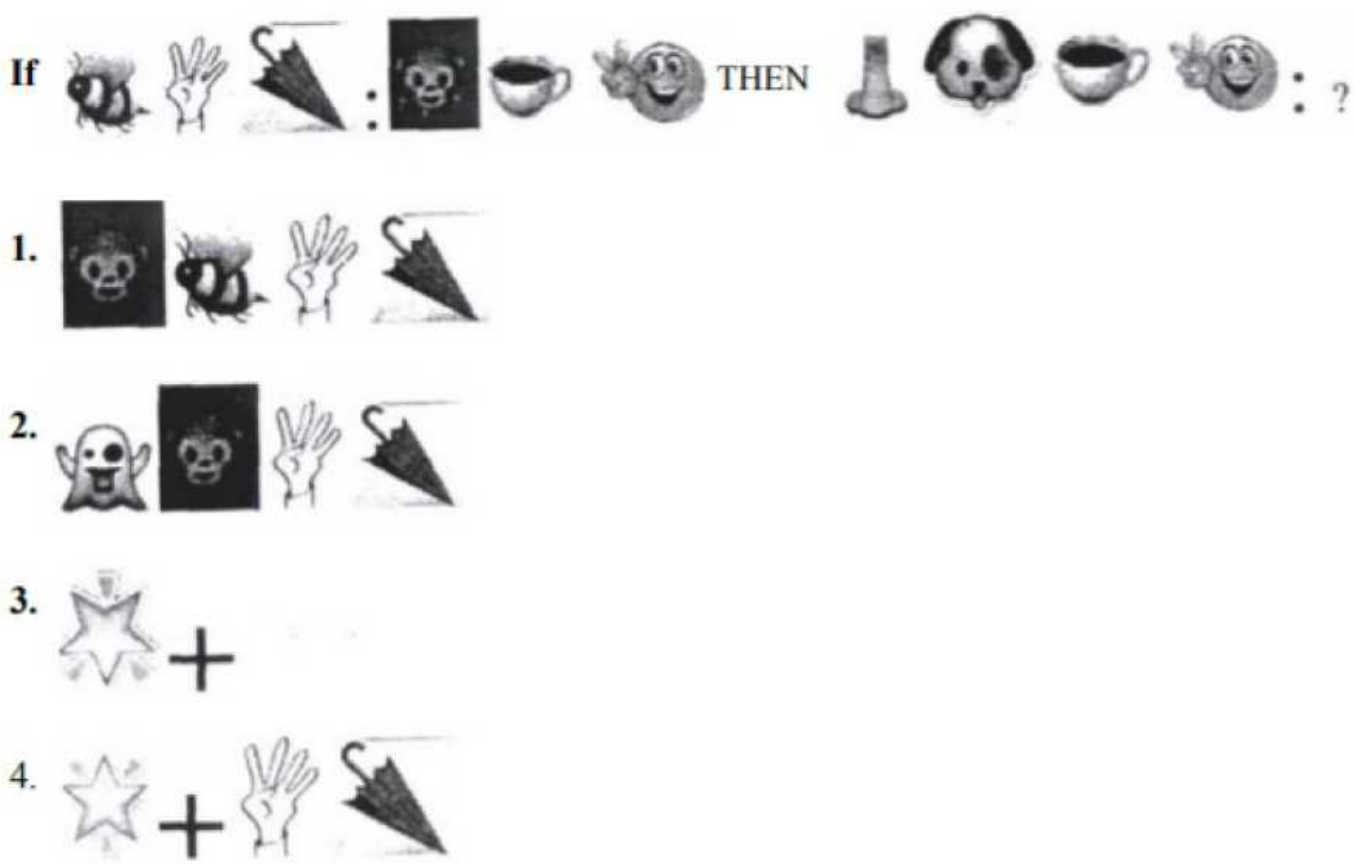
No. of horizontal lines = 15

No. of vertical lines = 19

No. of inclined lines = 5

Total = 39

65. **Answer the following by referring to the image.**



A 1

B 2

C 3

D 4

Answer: C

Instructions [66 - 70]

Based on the information given below answer the questions:

Ten friends Matt, Sam, Pat, Tom, Sid, Alex, Kat, Jim, Jane and John are having dinner on a rectangular table. Eight facing each other along the length of the table while two facing each other along the smaller side of the table. Pat is sitting diagonally opposite to Kat, Alex is facing Jim, John is to the right of Jane, Tom is sitting between Sam and Jim, Pat is to the extreme left of Jane who is sitting on

the extreme right along the length of the table. Sid is facing Tom and Matt is on the right of Sam.

66. **Who do you think is sitting in front of each other along the small sides of the table ?**

A Matt and John

B Matt and Sam

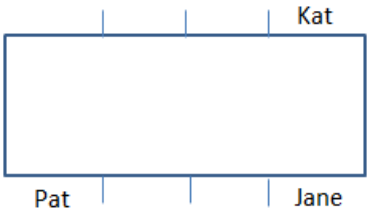
C Matt and Kat

D John and Sam

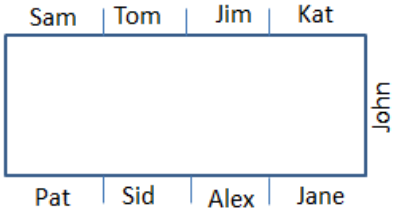
Answer: A

Explanation:

It is given that "Pat is sitting diagonally opposite to Kat" and "Pat is to the extreme left of Jane who is sitting on the extreme right along the length of the table." Using this, we can draw:

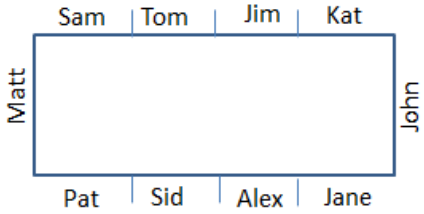


"Alex is facing Jim", "Tom is sitting between Sam and Jim", "Sid is facing Tom" using these 3 statements together,



Using the statement "John is to the right of Jane",

It's given "Matt is to the right of Sam":



67. **Sid is sitting between which of the following two ?**

A Sam and Kat

B Pat and Alex

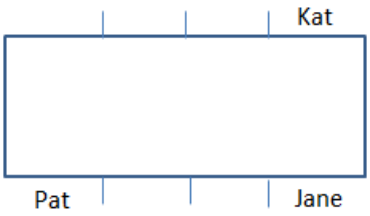
C Alex and Jane

D Kat and Jane

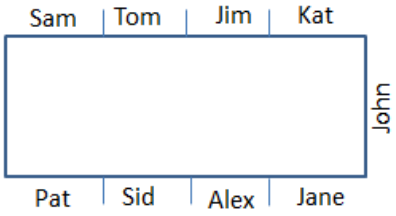
Answer: B

Explanation:

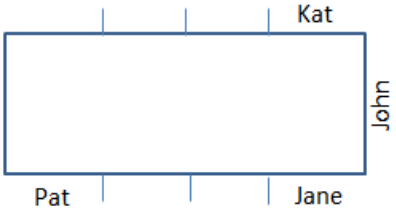
It is given that "Pat is sitting diagonally opposite to Kat" and "Pat is to the extreme left of Jane who is sitting on the extreme right along the length of the table." Using this, we can draw:



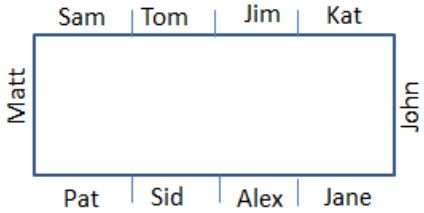
"Alex is facing Jim", "Tom is sitting between Sam and Jim", "Sid is facing Tom" using these 3 statements together,



Using the statement "John is to the right of Jane",



It's given "Matt is to the right of Sam":



68. **Who are sitting diagonally opposite to each other ?**

A Sid and Tom

B Sam and Jane

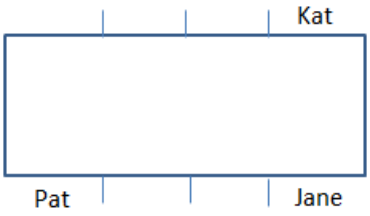
C Alex and Jim

D Jane and Kat

Answer: B

Explanation:

It is given that "Pat is sitting diagonally opposite to Kat" and "Pat is to the extreme left of Jane who is sitting on the extreme right along the length of the table." Using this, we can draw:



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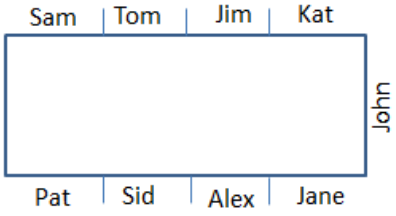
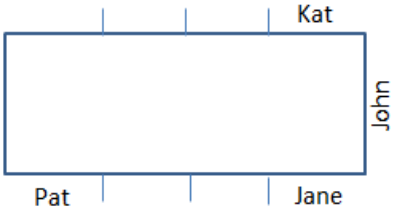
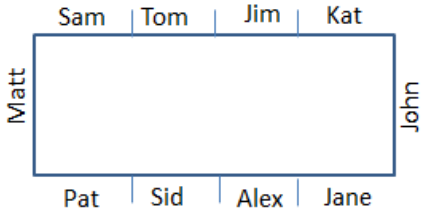


Using the statement "John is to the right of Jane",



It's given "Matt is to the right of Sam":



69. **Who is sitting to the immediate right of Jim**

A Sam

B Jane I

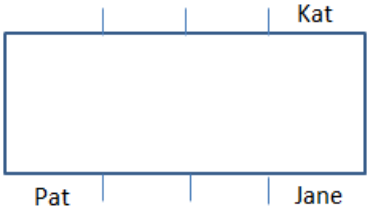
C Alex

D Tom

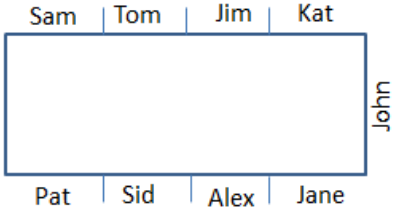
Answer: D

Explanation:

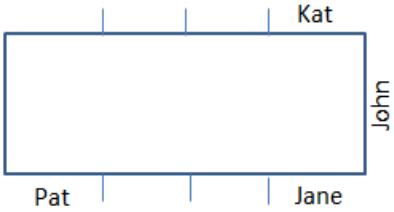
It is given that "Pat is sitting diagonally opposite to Kat" and "Pat is to the extreme left of Jane who is sitting on the extreme right along the length of the table." Using this, we can draw:



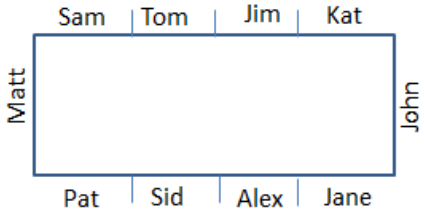
"Alex is facing Jim", "Tom is sitting between Sam and Jim", "Sid is facing Tom" using these 3 statements together,



Using the statement "John is to the right of Jane",



It's given "Matt is to the right of Sam":



70. **Who is sitting two places left to Jane ?**

A Pat

B Alex

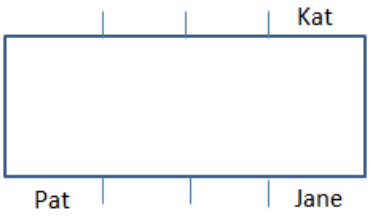
C Sid

D Sam

Answer: C

Explanation:

It is given that "Pat is sitting diagonally opposite to Kat" and "Pat is to the extreme left of Jane who is sitting on the extreme right along the length of the table." Using this, we can draw:



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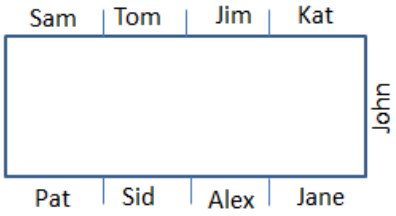
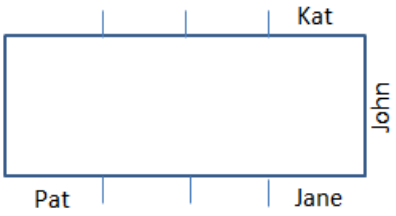
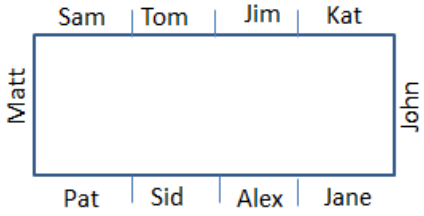


Using the statement "John is to the right of Jane",



It's given "Matt is to the right of Sam":



General English

71. **"To catch a tartar" means _____**

A To trap wanted criminal with great difficulty

B To catch a-dangerous person

C To catch a person who is more than one's match

D To meet with disaster

Answer: B

72. **A leopard can't change its _____**

A dots

B stripes

C color

D none of the above

Answer: D

73. **"So sober sometimes serious Sam smiles on silly things" is a /an _____.**

A hyperbole

B assonance

C anaphora

D alliteration

Answer: D

Explanation:
A Hyperbole refers to exaggeration

Assonance refers to the resemblance of sound between syllables of nearby words like cold, culled etc.

Anaphora is the repetition of a word or phrase at the beginning of successive phrases clauses or sentences.

Alliteration refers to the repetition of the same letter at the beginning of consecutive words.

Since 's' is repeated in the beginning of words here, the answer is (d) alliteration.

74. **"The strength given by my mother is bigger than the cosmic energy in this cosmos" is _____**

A rhyme

B metaphor

C personification

D hyperbole

Answer: B

75. **The buzzing of bees is an example of _____**

A simile

B metonymy

C onomatopoeia

D paradox

Answer: C

76. **The word CACTI is of Latin origin. It can also be replaced by _____**

A cactus

B cats

C cactuses

D cactusas

Answer: A

77. **The word TROUSSEAUX is of French origin. It can also be replaced by _____**

A Troussers

B Trousseaus

C Troussears

D None of the above

Answer: D

78. **The singular of the word SCARVES is spelt as _____**

A scarve

B scarfe

C scarv

D none of the above

Answer: D

79. **The "Drawing Pins" in British English is referred to as _____ in American English.**

A thumb pins

B board pins

C broad pins

D thumbtacks

Answer: A

80. **"Aubergine" in Britain is referred to as in United States of America.**

A Migraine

B eggplant

C margarine

D egg

Answer: B

81. **Base ball in American English is commonly referred to as _____ in British English.**

A run ball

B strike ball

C rounders ball

D rounders

Answer: D

82. **Complete the collocation words _____ weapon**

A nuclear

B atomic

C molecular

D electronic

Answer: A

83. **Complete the collocation words Seminal _____**

A news

B river

C nuance

D research

Answer: D

84. **Complete the collocation words _____ Percentage**

A huge

B big

C more

D large

Answer: D

85. **The idiom "Against the clock" means**

A Break the Rules

B Rushed and short on time.

C Go back to the Past

D Look at the Past

Answer: B

86. **The idiom "Buy a lemon" means _____**

A A superstitious way to say 'good luck'

B A lie which is propaganda for people to believe

C An unbelievable story which is told for people to believe

D To purchase a vehicle that constantly gives problems or stops running after you drive it away.

Answer: A

87. **Kedar uses the following sentence to introduce himself. Choose the correct option.**

A Myself Kedar, I belong to Mumbai

B Myself Kedar and I am from Mumbai

C Myself Kedar from Mumbai

D None of the above

Answer: D

88. **Ram uses the following sentence to tell the time of the day to Shyam. Which one is the correct sentence ?**

A It is 2 pm in the afternoon

B It is 2 pm

C It is 2 pm in the noon

D It is 2 o'clock in the afternoon

Answer: D

Instructions [89 - 91]

In the following questions parts have been underlined. If any rule of correct English is violated then it could be only in the UNDERLINED part, marked as 1, 2, 3 or 4. Choose the option, which violates usage of correct English.

89. **My Parents/1 are Indians but/2 I am/3 born in Sydney/4.**

A only 1

B 1 and 3

C only 3

D only 4

Answer: B

90. **Standing/1 on the top of the tower the whole city could be seen/3.**

A only 1

B only 2

C 1 and 2

D None of the above

Answer: D

91. **Ganesh is taller than/1 Ramesh but/2 Anoop is/3 more taller/4.**

A only 1

B only 2

C only 3

D only 4

Answer: D

Instructions [92 - 96]

Read the following passage and answer the questions:

"There are several factors that contribute to wisdom. Of these I should put first a sense of proportion; the capacity to take account of all the important factors in a problem and to attach to each its due weight. This has become more difficult than it used to be owing to the extent and complexity of the specialized knowledge required of various kinds of technicians. Suppose, for example, that you are engaged in research in scientific medicine. The work is difficult and is likely to absorb the whole of your intellectual energy. You have no time to consider the effect which your discoveries or invention may have outside the field of medicine. You succeed (let us say), as modern medicine has succeeded, in enormously lowering the infant death-rate, not only in Europe and America, but also in Asia and Africa. This has the entirely unintended result of making the food supply inadequate and lowering the standard of life in the most populous parts of the world. To take aneven more spectacular example, which is in everybody's mind at the present time- you study the composition of the atom from a disinterested desire for
knowledge and incidentally place in the hands of powerful lunatics the means of destroying the human race. In such ways the pursuit of knowledge may become harmful unless it is combined with wisdom; and wisdom in the sense of comprehensive vision is not necessarily present in specialists in the pursuit of knowledge. Comprehensiveness alone, however, is not enough to constitute wisdom. There must be, also, certain awareness of ends of human life. This may be illustrated by the study of history. Many eminent historians have done more harm than good because they viewed facts through the distorting medium of their own passions. Hegel had a philosophy of history which did not suffer from any lack of comprehensiveness, since it started from earliest time and continued into an indefinite future. But the chief lesson of history which he sought to inculcate was that from the year A.D. 400 down to his own time, Germany had been the most important nation and the standard bearer of progress in the world. Perhaps one could stretch the comprehensiveness that constitutes wisdom to include not only intellect but also feeling. It is by no means uncommon to find men/ women whose knowledge is wide but those feelings are narrow. Such men / women lack what I am calling wisdom. I think the essence of wisdom is emancipation, as far as possible, from the tyranny of the here and the now. We cannot help the egoism of our senses. Sight, sound and touch are bound up with our own bodies and cannot be made impersonal. Our emotions start similarly from ourselves. An infant feels hunger or discomfort; gradually with the years his horizon widens, and, in proportion as his thoughts and feelings become less personal and less concerned with his own physical states, he achieves growing wisdom. This is of course a matter of degree. No one can view the world with complete impartiality; however, it is possible to make a continual approach towards impartiality, on the one hand, by knowing things somewhat remote in time or space, and, on the other hand, by giving to such things their due weight in our feelings. It is this approach towards impartiality that constitutes growth in wisdom. Perhaps in this sense the wisdom can be taught. I think that this teaching should have a larger intellectual element than has been customary in what has been thought of as moral instruction. I think that the
disastrous result of hatred and narrow mindedness to those who fed them can be pointed out incidentally in the course of giving knowledge. Knowledge and morals ought not to be too much separated. It is true that the kind of specialized knowledge which is required for various kinds of skills has very little to do with wisdom. But it should be supplemented in education by wider surveys calculated to put it in its place in the totality of human activities. Even the best technicians should also be good citizens, i.e. citizens of the world and not of any one nation.
With every increase of knowledge and skill, wisdom becomes more necessary for every such increase augments our capacity of realizing our purposes, and therefore augments our capacity for evil, if our purposes are unwise. The world needs wisdom as it has never needed it before; and if knowledge continues to increase, the world will need wisdom in the future even more than it does now.

92. **According to the author what results in growth of wisdom ?**

A Widening Knowledge and narrowing feelings

B Acquiring specialized knowledge which is required for various kinds of skills

C Viewing the world with complete impartiality

D None of the above

Answer: C

93. **According to the author the essence of wisdom is _____**

A Deliverance from the oppression of here and now

B Subduing from the oppression of here and now

C Captivity from the oppression of here and now

D All of the above

Answer: B

94. **What according to the author is the relationship between knowledge and wisdom ?**

A As human wisdom increases there is increase in knowledge created

B As knowledge keeps on increasing there is lesser need of wisdom

C As knowledge keeps on increasing there is a higher need for wisdom

D As growth in wisdom stops, knowledge creation stagnates.

Answer: C

95. **The example used by the author to explain the ways in which the pursuit of knowledge can be harmful, unless combined with wisdom, is**

A the space mission

B medicine that lowers infant mortality across the world.

C the progress of Germany.

D none of the above.

Answer: B

96. **What factors according to the author, contribute to wisdom ?**

A a sense of proportion, giving knowledge, study of history, emancipation

B a sense of proportion, dignity, knowledge, skill

C comprehensiveness, a sense of proportion, awareness of the end of human life, emancipation from the tyranny of the present

D none of the above.

Answer: C

Instructions [97 - 98]

Read each of the components of the given sentences and mark the component with grammatical error.

97. **I. He is capable at**
II. twisting any fact
III. without any suspicion
IV. at any time

A Only I

B Only II

C Only III

D Only IV

Answer: A

98. **I. My cousin brother, who lives**
II. in Goa, is eager to visit us
III. in Mumbai and aspires to have
IV. a glimpse of the city

A Only I

B Only II

C Only III

D Only IV

Answer: A

Instructions [99 - 100]

Choose the correct word which best fits for the sentence to be complete and grammatically correct.

99. **It was no wonder that after the roads were closed with continuous snow fall, hotels started_____ off the tourists.**

A ranking

B taking

C beating

D looting

Answer: A

100. **When the penalty corner was saved, the players _____ in toward the goal keeper to congratulate him.**

A closed

B went

C crashed

D pooled

Answer: C

101. **The synonym for the word "Inclement" is**

A stormy

B intimate

C advocacy

D immediate

Answer: A

102. **The antonym for the word "Taciturn" is _____**

A garrulous

B energetic

C ephemeral

D enigmatic

Answer: A

103. **Complete with the appropriate collocation word _____ activism.**

A judicial

B legal

C prosecutional

D lawful

Answer: A

104. **If Propensity : Tendency then _____**

A Prologue : Epilogue

B Master : Slave

C Audacity : Impudence

D Conduct : Immortality

Answer: C

105. **If Tepid: Hot then _____**

A Jealousy : Envy

B Hatred : Antipathy

C Unity : Harmony

D Joy : Ecstasy

Answer: D

106. **From the following words pick the odd word out.**

A lampoon

B satire

C ridicule

D parable

Answer: D

107. **From the following words pick the odd word out.**

A euphemism

B maxim

C aphorism

D dictum

Answer: A

108. **From the following words pick the odd word out.**

A force

B intimidation

C shakedown

D bleak

Answer: D

Instructions [109 - 110]

The following questions have sentences which are incomplete. Pick up one phrase / clause from the options given, that will complete the sentence logically.

109. **To ensure success in a difficult task_____**

A one needs to be persistent

B persistence is needed

C you need a person of persistence

D persistence is what one needs

Answer: B

110. **The more we looked at the piece of modern art _____**

A we liked it less

B better we liked it

C the less we liked it

D we liked it more and more

Answer: B

Quantitative Aptitude

111. **A batsman was having 32 runs per innings as his average after 15th innings. His average increased by 2 runs after 16th inning. Then what was his score in the 16th inning?**

A 64

B 60

C 46

D 62

Answer: A

Explanation:
This can be answered either by using averages concept or alligations concept.

Alligations :$p = \frac{(p1q1+p2q2)}{q1+q2}$ where q1 and q2 are the number of innings in two group's , p1 and p2 are there respective averages(average runs) , p is the overall average.

Here q1=15 , q2=1 , p1=32 , p= 34 (since increased by 2 runs)

On solving the equation you get p2=64

112. **The least number which is a perfect square and is divisible by each of the numbers 14, 16, 18 is**

A 6048

B 7056

C 1008

D 2046

Answer: B

Explanation:
The least number that is divisible by 14,16,18 will be the LCM of three which is 1008 but it is not a perfect square .

$1008 = 2^4 \cdot 3^2 \cdot 7$ To make it a perfect square you need to multiply it by 7.

1008*7=7056

113. **Four people clap after every 20 minutes, 30 minutes, 40 minutes and 50 minutes respectively. All of them clapped together at 10.00 am. Then they will again clap together at _____**

A 3 pm

B 5 pm

C 6 pm

D 8 pm

Answer: D

Explanation:
All of them will clap together after LCM(20,30,40,50) minutes = 600 minutes=10hrs

Therefore they will clap together again at 8pm.

114. **Three candidates "A", "B", "C" participated in an election. "A" gets 40% of the votes more than "B". "C" gets 20% votes more than "B". "A" also overtakes "C" by 4000 votes. If 90% voters voted and no invalid or illegal votes were cast, then what will be the number of voters in the voting list?**

A 72000

B 80000

C 70000

D 78500

Answer: B

Explanation:
Let 100x be the total numbers of voters in the voters list. => 90x voters voted

A=1.4B (since A received 40% more votes than B)

C=1.2B

Given A-C = 4000

1.4B-1.2B=4000 => B=20000 => A=24000 and C = 28000

So total voter who voted =A+B+C= 72000 which is 90% of the total list.

So when 90%= 72000 , 100%= 80000.

115. **In a competitive exam there were 5 sections. 10% of the total number of students cleared the cut off in all the sections and 5% cleared none of the sections. From the remaining candidates 30% cleared only section 1, 20% cleared only section 2, 10% cleared only section 3 and remaining 1020 candidates cleared only section 4. How many students appeared in the competitive exam ?**

A 2550

B 2800

C 3000

D 3200

Answer: C

Explanation:
Let total number of students=100x

10x=students who cleared the cut off in all the sections

5x=students who cleared none of the sections.

Remaining = 85x

Out of these 85x , 30% cleared only 1st section , 20% cleared only 2nd section, 30% cleared only section 3

Together they constitute 60% of 85x

Remaining= 40% of 85x =1020

On solving x=30

Total students=100x= 100*30=3000

116. **A man sold $\frac{3}{5}$th of his articles at a gain of 20% and the remaining at cost price. Find the percentage gain earned in the transaction.**

A 8

B 10

C 12

D 14

Answer: C

Explanation:
This can be solved in an easier manner by using allegations concept.

$p = \frac{(p1q1+p2q2)}{q1+q2}$ where p1 ,p2 are profit percentages , q1,q2 are the number of articles , p is the overall profit percentage.

Here q1=3/5 , q2 =2/5 , p1=20 , p2=0

On solving you get p as 12

117. **A trader sells 20 articles at Rs. 54 per article after giving 10% discount and gains 50% profit. If the discount is not given, the profit gained is _____**

A 56.76%

B 66.66%

C 62.66%

D 63.66%

Answer: B

Explanation:
P=50% and D=10%

The trader earns a revenue of Rs 54*20 after selling the items. = Rs 1080.

This is equivalent to a 50 percent profit.

Hence the cost price of all the items is Rs 1080*2/3 = Rs 720.

The revenue of Rs 1080 was earned after a discount of 10 percent.

If K is the marked price: K*(9/10) = K = Rs 1200.

Hence the profit percentage if no discount is provided :

$\frac{(1200-720)}{720} \cdot 100 = 66.66\%$

118. **A bottle contains 50 liters of milk. From this bottle 5 liters of milk was taken out and replaced the water. This process was repeated further for three times. How much milk is now contained in the bottle ?**

A 32.8 litres

B 34.4 litres

C 36.8 litres

D 46.5 litres

Answer: A

Explanation:
Final volume of Milk = Initial volume of milk $\left(1-\frac{y}{x}\right)^n$

where y=quantity of milk removed in each iteration , x= total quantity of the mixture and n=number of times the process being repeated

Final volume of milk = $50 \cdot \left(1-\frac{5}{50}\right)^4$

= 32.805

119. **A ball is dropped from a height of 200 meters. After striking the floor it re-bounces to $\frac{4}{5}th$ of the height from where it fell. The total distance it travels before coming to rest is _____**

A 1200 meters

B 1600 meters

C 1800 meters

D 1820 meters

Answer: C

Explanation:
For the 1st drop the distance travelled by the ball = 200m

After 1st drop it rebounces to a height of 4/5 * 200 and then falls from that height . The total distance travelled in this case would be $2 \cdot \frac{4}{5} \cdot 200$

Similarly the total distance travelled in next case would be $2 \cdot \frac{4}{5} \cdot \frac{4}{5} \cdot 200$

So total distance =

200 + $2 \cdot 200 \cdot \left(\frac{4}{5}+\left(\frac{4}{5}\right)^2+\left(\frac{4}{5}\right)^3+....\right)$

200+400$\left(\frac{\frac{4}{5}}{1-\frac{4}{5}}\right)$ = 1800m

120. **The sum of all two digit numbers that give a remainder 2 when they are divided by 7 is _____**

A 552

B 654

C 658

D 684

Answer: B

Explanation:
$\frac{12}{2}(16+93)$The numbers will be of the form 7k+2 where k is an whole number.

The smallest two digit number is when k=2 which is 16 and the largest 2 digit number is 93 k= 13

So sum = 16+23+.... +93 which are in AP.

Sum to n terms of an AP= n/2(a+l), where n=number of terms , a=1st term ,l=last term

Here n=12 , a=16 , l=93

Hence sum = 654

121. **A man covers half of his journey by train at 90 km/hr, one-third of the remainder by bus at 30 km/hr and the rest by cycle at 10 km/hr. The average speed during the entire journey is _____**

A 22.5 km/hr

B 28.5 km/hr

C 30.0 km/hr

D 32.5 km/hr

Answer: A

Explanation:
Average speed = Total distance/total time

Let us consider total distance =180km

Case 1 : man covers half of his journey by train at 90 km/hr

Distance= 90km => time t1= $\frac{90}{90}$ =1hr

Remaining distance = 90km

Case 2 : man covers one-third of the remainder by bus at 30 km/hr

Distance = 30km => time t2= $\frac{30}{30}$ =1hr

Case 3 : man covers rest by cycle at 10 km/hr

Distance = 60km => time t3= $\frac{60}{10}$ =6hr

Therefore Average speed = $\frac{180}{1+1+6}$ = 22.5km/hr

122. **John's grandfather was five times older to him 5 years ago. He would be two times of his age after 25 years from now. What is the ratio of John's age to that of his grandfather ?**

A 7 : 11

B 5 : 11

C 3 : 11

D 4 : 11

Answer: C

Explanation:
Let age of john 5 years ago be x years

age of his grandfather 5 years ago will be 5x

25 years from now there ages will be x+30 and 5x+30 respectively

Given 5x+30 =2(x+30) => x=10

So there present ages would be x+5=15 and 5x+5=55

Ratio = 3:11

123. **A number when successively divided by 5 and 6 gives remainders 3 and 2 respectively. What will be the remainders if the number is successively divided by 3 and 4 ?**

A 2, 3

B 2, 1

C 1, 2

D 3, 4

Answer: C

Explanation:
Going in the reverse order

When a number is divided by 6, the remainder is 2 => the number is of the form 6k+2

When 6k+2 is divided by 5,the remainder is 3 => the number is of the form 5(6k+2)+3 = 30k+13

When 30k+13 is divided by 3, the remainder is 1.

The remaining is 30k + 12, so when 30k+12 is divided by 4, the remainder is 2

This can also have another possibility of 1, 0 to be the remainders when successively divided by 3 and 4.

Among the given options 1, 2 satisfies this condition.

124. **How many zeros would be there in** $1024!$

A 240

B 248

C 256

D 253

Answer: D

Explanation:
The number of zeros in n! = highest power of 5 in n!

Highest power of 5 in 1024! = $[\frac{1024}{5}]$ + $[\frac{1024}{25}]$ +$[\frac{1024}{125}]$ + $[\frac{1024}{625}]$ where [ ]is the greatest integer function.

Highest power of 5 in 1024! = 204+ 40+ 8+ 1 = 253

125. **If x = 3 + 2** $\sqrt{2}$ **what will be the value of** $X^2 + \left(\frac{1}{X^2}\right)$**?**

A 35

B 32

C 36

D 34

Answer: D

Explanation:
X=3+2$\sqrt{2}$

$\frac{1}{x} = 3 - 2\sqrt{2}$

$x^2 + \frac{1}{x^2} = \left(x + \frac{1}{x}\right)^2 - 2 = 6^2 - 2 = 34$

126. **The unit digit in the final solution when, 13*27*63*51*98*46 is .....**

A 4

B 8

C 2

D none of the above

Answer: A

Explanation:
For calculating the units digit ,you only take last digit in each number and start multiplying them and when ever a 2 digit number is generated,you take only the units digit of that as well and go on.

Therefore 13*27*63*51*98*46 = 3*7*3*1*8*6 = 21*3*1*8*6 = 1*3*1*8*6 = 24*6 = 4*6 = 24 = 4

127. **A dishonest seller sells his grocery items using a false weight and thus gains 5% for a kilogram, he uses the weight of approximately _____**

A 940.251

B 943.123

C 948.238

D 952.381

Answer: D

Explanation:
Let us assume that he uses x grams of weight instead of 1000gm.

Now, SP=CP* $\frac{1000}{x}$

$\frac{SP}{CP} = \frac{1000}{X}$

$\frac{SP}{CP} - 1 = \frac{1000}{X} - 1$

$\frac{5}{100} = \frac{1000}{X} - 1$

$\frac{5}{100} + 1 = \frac{1000}{X}$

$\frac{105}{100} = \frac{1000}{X}$

X=952.381

128. **A, B and C can do a work in 6, 8 and 12 days respectively. If they do the work together and earn Rs. 2700, what is the share of C in that amount ?**

A 600

B 900

C 1000

D 700

Answer: A

Explanation:
shares are divided in the ratio of their efficiency.

Let us assume that a work of 24units is to be done

A does 4 units of work every day

B does 3 units of work everyday

C does 2 units of work everyday.

So shares will be divided in the ratio 4:3:2

So C's share will be $\frac{2}{9} \cdot 2700$ = 600 Rs

129. **How many words each of two vowels and three consonants can be formed from the letters of the word "UNIVERSAL" ?**

A 7000

B 7200

C 7400

D 7800

Answer: B

Explanation:
The number of ways of selecting 2 vowels from U,I,A,E = $4c_2$ = 6

The number of ways of selecting 3 consonants from N,V,R,S,L = $5c_3$ = 10

After selecting you can arrange them is 5! ways.

Total number of words = 6*10*120 = 7200

130. **Three pipes A, B and C can fill a tank in 12 hours. All the pipes started working together and after 3 hours, C is closed. If A and B can fill the remaining part in 10 hours, then the number of hours taken by C alone to fill the tank is .**

A 100 hours

B 110 hours

C 120 hours

D 130 hours

Answer: C

Explanation:
Let efficiencies of A,B,C be a,b,c respectively.

Given a+b+c = $\frac{W}{12}$ => Total work = 12(a+b+c)

They worked together for 3 hours. So work done in 3 hours = 3(a+b+c)

Remaining= 9(a+b+c) which is filled by a and b only in 10 hours

So $a + b = \frac{(9(a+b+c))}{10}$

On solving a+b=9c

So W= 12(9c+c)=120c

Time taken by C alone = $\frac{120c}{c}$ =120 hours

131. **If the numbers between 1 to 65 which will be divisible by 4 are taken and then if the number present in the units places and tens places is swapped, post which they are written in ascending order, then which of the following number will be at 10th place from the last ?**

A 40

B 24

C 44

D 25

Answer: A

Explanation:
Multiples of4 start from 04 to 64 in the given range.

Units digit of multiples of 4 end with 0, 2, 4, 6, 8.

On swapping, they come at ten's place.

So, swapped nos. when arranged in ascending order start with 0 in ten's place and then 2 in ten's place and so on...

40 comes 7th in the swapped series which is also 10th from last.

132. **Ajit, Ravi and Hari were trying to hit a target. If Ajit hits the target 5 times in 8 attempts, Ravi hits it 3 times in 5 attempts and Hari hits it 2 times in 4 attempts. What is the probability that the target is hit by at least 2 persons ?**

A $\frac{49}{80}$

B $\frac{24}{80}$

C $\frac{45}{80}$

D $\frac{25}{80}$

Answer: B

Explanation:
Probability of Ajit = 5/8
Probability of Ravi = 3/5
Probability of Hari = ½
Probability that the target is hit by at least 2 persons = 1 - [Prob of no hit + Prob of 1 hit].
$=1-\left(\frac{3}{8}\times\frac{2}{5}\times\frac{1}{2}+\frac{5}{8}\times\frac{2}{5}\times\frac{1}{2}+\frac{3}{8}\times\frac{3}{5}\times\frac{1}{2}+\frac{3}{8}\times\frac{2}{5}\times\frac{1}{2}\right)$
$= 1-\frac{31}{80}=\frac{49}{80}$

133. **If** $\frac{1}{2}\log x+\frac{1}{2}\log y+\log 2=\log(x+y)$**, then .....**

A $x=-y$

B $x=y+1$

C $x=y$

D $y=x+1$

Answer: C

Explanation:
mlog(a) + nlog(b) = log($a^{\frac{1}{m}}\cdot b^{\frac{1}{n}}$)

Therefore the given LHS reduces to log($2\sqrt{xy}$) which is equal to log(x+y)

Remove log on both sides

$2\sqrt{xy}$=x+y

$(\sqrt{x})^2 + (\sqrt{y})^2 - 2\sqrt{x \cdot y} = 0$

$(\sqrt{x} - \sqrt{y})^2 = 0$

=> x=y

134. $\log_5 25 + \log_2(\log_3 81)$ **is**

A 1

B 2

C 3

D 4

Answer: D

Explanation:

$\log(a^m) = m\log(a)$ *and* $\log_a a = 1$

$\log_5 5^2 + \log_2(\log_3 3^4)$

$2 + \log_2 4$

$2 + \log_2 2^2$

4

135. **Peter was standing on the top of a rock cliff facing the sea. He saw a boat coming towards the shore. As he kept seeing time just flew. Ten minutes less than half of an hour, the angle of depression changed from 30 to 60. How much more time in minutes will the boat take to reach the shore ?**

A 5

B 10

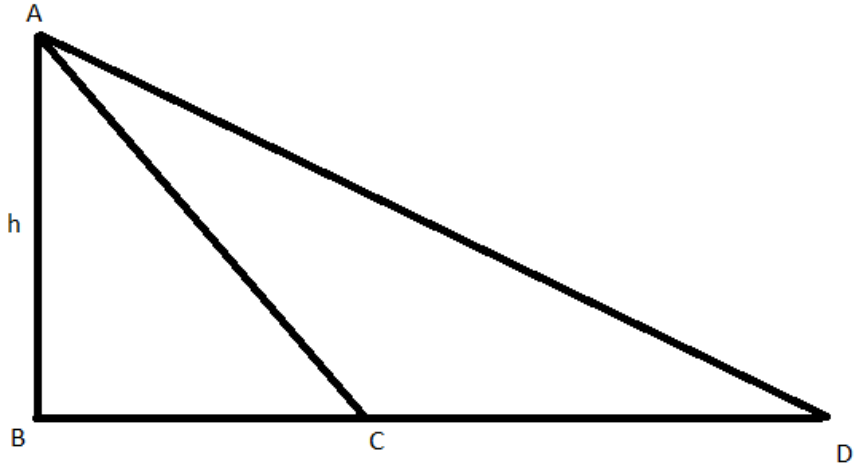
C 15

D 20

Answer: B

Explanation:

Let AB represent the rock cliff with its height be h



D represents the initial point and C is the point at which he observers the boat after Ten minutes less than half of an hour (20 minutes).

BD = $\frac{h}{\tan(30)} = \sqrt{3}h$

BC = $\frac{h}{\tan(60)} = \frac{h}{\sqrt{3}}$

In 20 minutes boat covered CD length which is = $\sqrt{3}h - \frac{h}{\sqrt{3}} = \frac{2h}{\sqrt{3}}$

Hence remaining lenght $\frac{h}{\sqrt{3}}$(BC) will be covered in 10 minutes

136. **In a school where there was a compulsion to learn at least one foreign language from the choice given to them, namely German, French and Spanish. Twenty eight students took French, thirty took German and thirty two took Spanish. Six students learnt French and**
German, eight students learnt German and Spanish, ten students learnt French and Spanish. Fifty four students learnt only one foreign language while twenty students learnt only German. Find the number of students in the school.

A 60

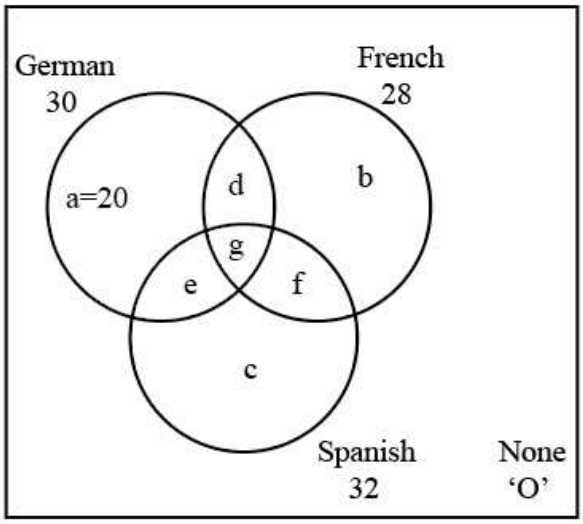
B 62

C 70

D none of the above

Answer: C

Explanation:



Exactly 1 subject = a+b+c ---> Represented by X

Exactly 2 subjects=d+e+f -----> Represented by Y

Exactly 3 subjects= g -----> Represented by Z

So X + Y+ Z + none = total ----------> (I)

German + French + Spanish = (a+b+c) +2(d+e+f) + 3(g) = X+ 2Y + 3Z ----------> (II)

So X+2Y+3Z= 30+28+32=90

Given X = 54

So 2Y +3Z = 36-------> (1)

Given ,

French and German = 6 => d+g = 6

German and Spanish = e+g = 8

French and Spanish = f + g = 10

adding all the three (d+e+f) + 3g = 24

Y + 3Z = 24 ------> (2)

solving 1 and 2 you get Y=12 and Z=4

Therefore Total = X+Y+Z+None = 54+12+4=70

137. **Sonali can solve 70% of the problems in a competitive exam and Nirali can solve only 60% in the same exam. What is the probability that at least one of them will solve a problem, provided selection of questions is done randomly from the same exam ?**

A 0.82

B 0.88

C 0.62

D 0.72

Answer: B

Explanation:
P(atleast 1 solved) = 1 - P(no one solved)

= 1-(1-0.7)x(1-0.6)

= 1 - (0.3)x(0.4)

= 1 - 0.12

= 0.88

138. **Rs. XYZ was deposited at simple interest at a specific rate for 3 years. Had it been deposited at 2% higher rate, it would have fetched Rs. 360 more. Find Rs. XYZ.**

A Rs. 5500

B Rs. 5000

C Rs. 6000

D Rs. 4500

Answer: C

Explanation:
Let the rate of interest be x% and Principal amount be P

Simple interest in 1st case = $\frac{(P \cdot 3 \cdot X)}{100}$

Simple interest in 2nd case = $\frac{(P \cdot 3 \cdot (X+2))}{100}$

Given the difference is 360

$\frac{(3 \cdot P)}{100} (X + 2 - X)$ = 360

So on solving we get P=6000.

139. **A man invests certain amount at 6% per annum simple interest and another amount at 7% per annum simple interest. His income from the interest after 2 years was Rs. 348. The ratio of first amount to second is 4:5. Find the total amount invested.**

A Rs. 2600

B Rs. 2900

C Rs. 2700

D none of the above

Answer: D

Explanation:
Let the total amount invested be 9x

So the interest for 2 years on 4x amount = $\frac{(4x*2*6)}{100}$

the interest for 2 years on 4x amount = $\frac{(5x*2*7)}{100}$

Given , Sum of these = 348

1.18x = 348 => x$\simeq$ 295

So total amount invested = 2655

140. **A person has a bag which contains 9 bulbs out of which 2 are fused and cannot be used to lighten the room. Two bulbs are selected at random. What is the probability that all the two bulbs chosen can be used to lighten the room ?**

A $\frac{5}{12}$

B $\frac{7}{12}$

C $\frac{9}{12}$

D $\frac{10}{12}$

Answer: B

Explanation:
Probability = Number of favourable cases/ total number of cases

favourable cases= $7c_2$

total cases = $9c_2$

Probability = $\frac{(7c_2)}{(9_{c_c})}$ =7/12

141. **The value of (p-a) * (p-b) * (p-c)…….* (p-z) is _____**

A A complex polynomial which starts with p^{24}

B Zero

C A complex polynomial which starts with p^{26}

D A complex polynomial which has several variables including p^{26} and p^{24}

Answer: D

Explanation:
If the question would have been "can be" , then all the options would have been correct but since it has been given as 'is' , only option d satisfies.
Option A: The polynomial can start with any power of p. The order of powers of p does not make any difference.
Option B:It is possible only when p = a or b or c ..... or z
Option C:The polynomial can start with any power of p. The order of powers of p does not make any difference.
Option D:This is true in all the cases.

142. **There are nine humans in a ship, each human has nine cages and each cage has nine huge lions and each lion has nine cubs. How many legs are there in the ship ? (Human have two legs, lions have four legs, cubs have four legs.)**

A 747

B 3258

C 29178

D 26561

Answer: C

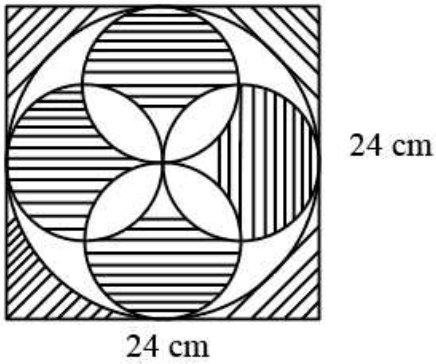
Explanation:
Total number of humans = 9 => total legs = 9*2=18

Total number of lions = 9*9*9 => total legs= 9*9*9*4=2916

Total number of cubs = 9*9*9*9=> total legs =9*9*9*9*4=26244

So total legs= 29178

143. **As shown in the figure, there is a square of 24 cm. A circle is inscribed inside the square. Inside the circle are four circles of equal radius which are inscribed. The total area of the shaded region in the figure given below is _____**



A 576 - 196 π

B 584 - 196 π

C 864 - 196 π

D none of the above

Answer: D

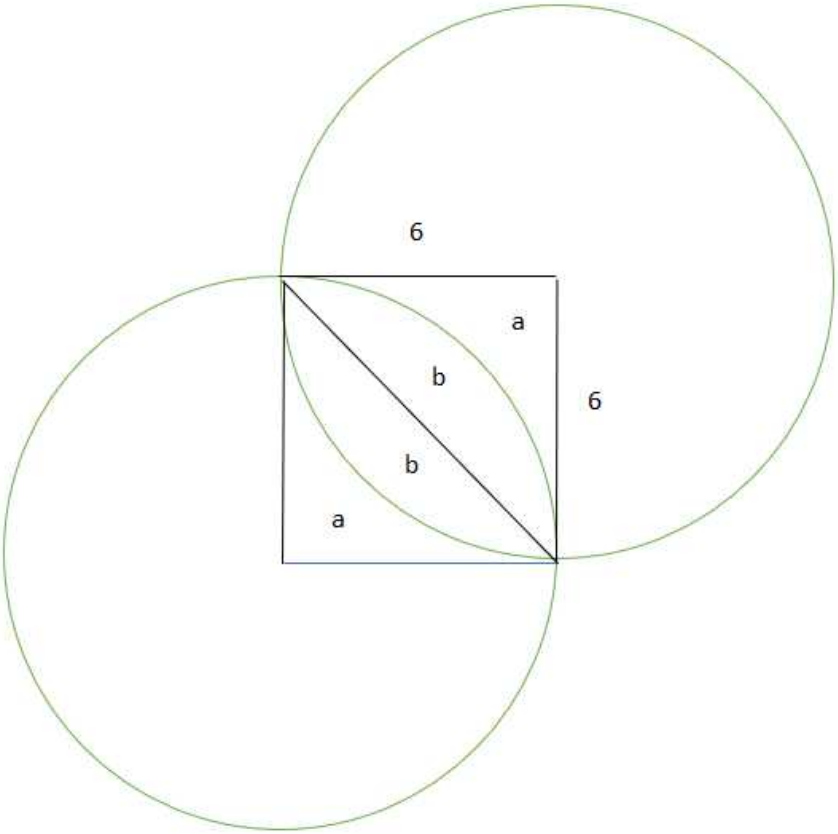
Explanation:
The above area can be obtained by the following operation: Area of Big Square - Area of the Bigger circle + $4\times$ Area of Smaller Circle + $8\times$ Overlapping Area of smaller circles

i) Area of Big Square = $24 \times 24 = 576$

ii) Area of Big circle = $\pi\, 12^2 = 144\pi$

iii) Area of smaller circle = $\pi\, 6^2 = 36\pi$

iv) For Area of smaller common area = 2b from below figure



Area b = Area of circular arc(2b+a) - Area of triangle (a+b)

$= \frac{1}{4}(36\pi) - \frac{1}{2}(6 \times 6) = 9\pi - 18$

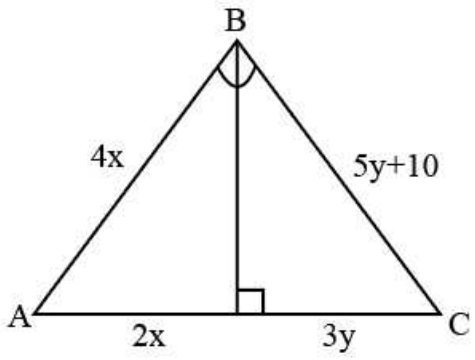
Area of common part of smaller circle = 2b = $18\pi - 36$

Therefore required area = $576 - 144\pi + (4 \times 36\pi) - 8 \times (18\pi - 36)$

$= 288 + 144\pi$

None of the above are correct

144. **In the figure given below the value of x and y would be _____**



A 10 and 15

B 15 and 10

C 06 and 12

D 12 and 06

Answer: A

Explanation:

Let the point between A and C be D

Triangle ABD and Triangle BCD are congruent using ASA congruency

Therefore 2x=3y and 4x=5y+10

On solving X=15 and Y=10

145. **Mr. Suresh went into a restaurant and had a happy lunch for Rs.162. He paid for the same using a 500 rupee note. He was so happy with the meal and hence purchased a mini snack box for Rs. 37 and paid for the same using a 100 rupee note. Mr. Suresh ensured that he collected the balance from the cashier in both cases. Although he was satisfied with the service, he did not pay any tips to the server. The next day when the cashier went and deposited the money in the bank, it was found by the banker that only the two currency notes which were given by Mr. Suresh were counterfeit notes. As per policy, the bank immediately tore both the notes using their shredding machine. What is the total loss to the restaurant in this transaction ?**

A 1200

B 600

C 7991

D none of the above

Answer: B

Explanation:
Total loss would be = Cost of food + Change that restaurant has given suresh

= 162+37 + 338+63=600

146. **If $2^x + 2^{x+1} = 48$, then the value of x^x is**

A 4

B 64

C 256

D 16

Answer: C

Explanation:
$2^x + 2^x.2 = 48$

$2^x (1 + 2) = 48$

$2^x = 16$

x=4

$4^4 = 256$

Instructions [147 - 150]

Following table shows the percentage population of six states below poverty line and proportion of male and female.

State	% Population below poverty line	Proportion of male & female	
		Below Poverty line	Above Poverty line
		M:F	M:F
A	16	2:3	3:4
B	10	4:3	5:2
C	14	3:4	2:3
D	20	5:2	4:3
E	25	4:1	2:1
F	20	2:3	4:1

147. **If the total population of state A is 5000 then what is the no. of females above poverty line in state A?**

A 2000

B 2400

C 2600

D data inadequate

Answer: B

Explanation:
Total population of A=5000

Population of A below poverty line =16% => population of A above poverty line = 84% = 4200

Number of females above poverty line in A = $\frac{4}{7} \cdot 4200 = 2400$

148. **If the population of C&D together is 20000 what is the total no. of females below poverty line in the above states?**

A 5000

B 6000

C 7200

D NOTA

Answer: D

Explanation:
Since the individual populations of C and D aren't given , the number of females below poverty line cannot be determined.

149. **If the population of males below poverty line in state C is 6000 & state E 1000 then what is the ratio of the total population of state C& E is**

A 2 : 1

B 3 : 5

C 11 : 5

D NOTA

Answer: D

Explanation:

Let total population of C and E be 100x and 100y respectively.

Number of males below poverty line in C = $\frac{3}{7} \cdot 14x$ = 6x = 6000 => x=1000

Number of males below poverty line in E = $\frac{4}{5} \cdot 25y$ = 20y=1000=>y= 50

Hence ratio = 20:1

150. **If in state F population of females below poverty line is 16000, then what is the population of males below poverty line in that state?**

A 8000

B 6000

C 12000

D NOTA

Answer: D

Explanation:
Let total population of F be 100x

Population below poverty line = 20x

Females below poverty line = $\frac{3}{5} \cdot 20x = 12x$ = 16000

=> x= 1333.333

Males below poverty line = $\frac{2}{5} \cdot 20x = 8x$ = 10666.66