Question 1

How many **weekdays download** were made in January and February.

Take note of the bolded statement in the question….

In the table you have Number of downloads(Millions) which is both weekdays and weekend –

January – 22

February - 27

Whereas weekends downloads for January and February are 82% & 94% respectively

Simply subtract % of weekends download from 100% to get the weekdays % downloads

---- 100- 82 = 18%

----100-94 = 6%

You can now evaluate the % from the Number of downloads for the entire week (weekend & weekdays)

22 * 18/100 = 3.96

27* 6/100 = 1.62

Adding 3.52 + 1.62 = 5.58 – **Answer = 5,580,000**

Question 2

What was the % decrease in total of downloads between March and April?

Note Decrease!!!

Downloads in March 32

Downloads in April 26

Subtract 26 from 32 --- 32-26 = 6

Calculating decrease technique is usually putting the number of result of subtraction on the Ultimate number (Division)

6/32 = Here, 6 is the result after subtraction and 32 the ultimate number or Dominating number which the limiting number (26) was subtracted from.

- 6/32 = 0.1875 * 100 = 18.8% (Percentage of decrease)
- **18.8% Asnwer..**

Question 3

If the total number of feedback responses is 25% greater than last year, how many responses were there last year..

Solution…

Usually English can be a very big problem in this type of question. Be careful!!

25% greater than last year to many would have been calculated as 34200 + 49550 = 83750

But this is how it should be

125% greater than last year to many would have been calculated as 34200 + 49550 = 83750

100% assumed = 83750.. So 25% greater than… 125% = X unknown

125/100 = 1.25

83750/1.25 = **67, 000 Answer**

Question 4

Solution.

How many customers sent their feedback by letter.

Note satisfied customers and dissatisfied customers feedbacks are all feedbacks..Work them together

Satisfied 34,200 * %by letter/100 ---- 34200 * 29/100 = 9918

Dissatisfied 49550*%by letter/100--- 49550*38/100= 18829

Adding 18829 + 9918 = **28747 (Answer)**

Question 5 –

If the number of bus passenger who are under 35 Decreased by 0.8% next year, and 11% of this age group travelled by bus, approximately how many commuters would be under 35?

This question is very technical but not hard to hit if you can follow it step by step without deviating or picking randomly..

Step 1.. Identify the numbers of Bus commuters from average number of commuters.

425,600*12/100 = 51,072 (Bus Passenger)

Step 2.. Questions states Bus passenger under 35 Decreased by 0.8% ..For quick calculation 100-0.8= 99.2%

51,072 * 99.2/100 = 50,663.4(Number of passenger after 0.8% Decreased)

Step 3

The big question…

11% of this age group travelled by bus…How many commuters would be under 35…

50,663.4/0.11 = 460,576.6 **Answer --- You need to sharpen your skill to know how to get a whole number in a question reflecting the capital base which all factors pledge allegiance to..**

Question 6

Within the under 35 'Other group', if 65% walk and the remainder cycle, what is the approsimate ratio of walkers to cyclists?

Solution..

Don't waste too much time cracking brain…

You have 65% already for walkers 100-65 = 35% for cyclist

Therefore, 65:35 ..Divide through by 7

You get **13:7 ….Answer**

Question 7.

How much more would a customer have repay each month, over six months period for a table priced at $600 than a table priced @ $250

Solution..

How much more? That is the key question…

The man owing 600 would pay 112.50 every month

The man owing 250 would pay 50 every month…

Bros..Subtract….. 112.50 -50.50 = $62.40**(Answer)**

Question 8

Of the proposals written last year, what proportions were accepted….

Solution…Usually this type of question is taken by using all factors to make your judgement in the context.

Both accepted and rejected values are important for you to get your proportion…Which is the question!!! Always have it in my mind proportion..All factors working together….

Last Year –Key working Area…

150+58+210+122 = 540

Accepted Portion = 150+210 =360

360/540…….Eliminate Zeros…

36/54 = 2/3 **Answers**

Question 9

If newspaper generated 22500 enquiries last year, how many did TV advert produced that year.

Solution

Like I said previously.. **You need to sharpen your skill to know how to get a whole number in a question reflecting the capital base which all factors pledge allegiance to..**

Newspapers generated 22500 and % shared on chat is 25%

22500/0.25 = 90000(The ultimate number where every number is breathing from)

90000*15/100= 13500(TV advert) Note 15% is what TV advert shared in the chat!!!

13500--Answers

Question 10

Solution

Approximately what % of all poor performers works in region 2…

Focus --- %, poor, region 2

14 in region / to number of all poor performance

14/48 = 0.29 * 100% = 29% **Answer**

Question 11

If the Tax bill for this year was $20,000 which was an increase of 25% from last year, how much was paid out on expenses last year…

Solution.

Like I said previously.. **You need to sharpen your skill to know how to get a whole number in a question reflecting the capital base which all factors pledge allegiance to..**

25/100= 0.25

20000/0.25 = 80,000

Step 2.. Note 20,000 was an increase of 25% from last year.. which means 60,000 was last year ultimate number last year.. by subtraction….. 80000-20000= 60000.

Therefore last year 60000…

60000*expenses/100 ---60,000*12.5/100 = 7500 = 8000 Approximation. (**Answer)**

Question 12.

Solution

Which factory had the highest % Low quality product…

Every product is quality is important to pass judgment of level of poorness.

Therefore…

Factory 1 , 9+22+69 = 100 – Low product =9 ==== 9/100 * 100 = 9%

Factory 2, 12+52+136 = 200 –Low product= 12=== 12/200*100= 6%

Factory 3, 6+30+64 = 100 – Low product = 6==== 6/100* 100= 6%

Factory 4, 3+16+81 = 100 Low product =3=====3/ 100*100= 3%

Factory 5, 8+44+98= 150 Low product = 8======8/150*100= 5%

highest % Low quality product **= Factory 1 Answer**

Question 13

Solution:

If the amount spent on material was half that spent on wages this year when taxation accounted for 20,000, what was the wages bill for last year.

Note..

Amount spent on material last year was half spent on wages this year..

Material last year = wages/2

Therefore this year taxation accounted for 20,000. Which is 25% on chat.

Like I said previously.. **You need to sharpen your skill to know how to get a whole number in a question reflecting the capital base which all factors pledge allegiance to..**

20,000/ 25/100 = 20,000/0.25 = 80,000

Material last year = wages/2

What is wages in this year… 80,000*40/100 = 80,000*0.4 = 32,000(Wages)

Therefore: Material last year = wages/2

Material last year = 32000/2

Material last year = 16,000

Where 16,000 for material represents 20% on the chat..

Ultimate number finding…. 16,0000/20/100 = 80,000

Wages bill for last year 80,000 * 34/100 = **27, 200 (Answer)**

Question 14:

Among which group of degree students was there the highest success rate..

All factors are important to pass judgement.

This year

Singles sex = 235+36 = 271 … 235/271 *100 = 87%

Co-educational = 300+45 = 345.. 300/345 * 100 = 87%

Last year

Singles Sex =210+30 =240 … 210/240*100 = 88%

Co-educational = 290+45 =335… 290/335* 100= 87%

Singles Sex -- Last year is the highest success rate…

Question 15:

Approximately how many units were rejected by the Northern plant during production over the year?

Solution:

Northern plant—Key focus… Saleable units = 5520

And rejected ones in % is 31%..

There fore if 31% is the rejected one…then 69% would represent the 5520 which were saleable or accepted. .. Getting you Ultimate number…

5520/0.69 = 8000

100= 8000 --- Ultimate number which every factor pledge allegiance to…

Therefore 8000* 31/100 = 2480

8000* 69/100= 5520

To know the rejected unit by the Northern plan all through the year

2480*by total hours of operation during the year….. 5845 = 14,495,600—14,500,000 **Answer**

Question 16:

If the revenue for car rental in year 1 was half that for hotels in year 2 when Holiday lettings account for 5.04 Euros, what was the revenue from hotels in year 1?

Solution..

Note… Revenue for car rental in year 1 = half for that hotel in year 2……..

Holiday letting account for 5.04 Euros..

Find the ultimate number year 2= 5.04/40/100 --- 40% represent holiday letting…. Where it accounted for 5.04 in year 2.

5.04/40/100 = 12.6

Revenue for car rental in year 1 = half for that hotel in year 2……..

Hotel in year 2…= 12.6/20/100 = 2.52

Revenue for car rental in year 1 = half for that hotel in year 2……..

2.52/2 = 1.26 Car rental in year 1

1.26 = 12% for car rental in year 1….

Find the ultimate number year 1,,, 1.26/12/100= 1.26/0.12 = 10.5

Revenue from hotel in year 1 = 10.5 *20/100= **2.1 Answer**

Question 17—

If the rate of change in fossil fuel consumption by manufacturing from year 2 to year 3 continues, approximately how much fossil fuel will be consumed by manufacturing in country X in year 8…

Solution

This is a very funny technical question…Anybody can fall for it…Looking at what happened between year 2 and year3 of X . The change there was 23 to 25. And one would have gone by using the normal series form …23,25,27,29,31,33,35.. Brother this answer 35 is inside the options..But explosion..U don fail ooo…

The question is rate of change……Rate …Rate… Rate…..

Now the rate of change between Year 2 and Year 3 …

--- 23,25 – 25-23 =2…… 2/23 on increment to 25 === 0.0869 * 100 =8.69% = 9% --9% as rate of change…

You can now start by 25*109/100 = 27.25(Year 4) , 27.25*109/100= 29.70 (Year5), 29.70*109/100 = 32.40(year 6), 32.40*109/100= 35.30(Year 7), 35.30*109/100=38.46…38 million NAIRA to spend if I enter oil company,…chai..see moneyyyyyyyyyyyyy 38 million na answer…

Question 18…

In year 4, If the proportions of all types of fuel consumption in country Y remain identical to year 3 and electricity, gas and water consumable increases by 7 million tones, what would be the fossil nonsense for domestic…

Solution…

Abeg this one dey hard..but thank God I escape am….

The word proportion is the killing word in this question… respectively for country Y, we have

18

28

13

21

4

To calculate this..You do calculation between numbers proportion from the top to the bottom..Identifying if it is increment or decrement.

The question say by 7 million tones added to electricity 28+7 = 35

Now you have an order of

18

35

13

21

4 --- But question says proportions remains the same…

Therefore we need to compliment for others.. How do you do that

Going back to the initial table…

You have 18 – 28 – Increment 10 increase --10/18 = 56% increase..

To compliment for table 2 –Manufacturing (18) since it proportion is 56%

35*56/100 = 19.6 = 20 (Manufacturing for year 4)

Going back to the initial table…

You have 28-13 – decrement 15 decrease --15/28 = 54% 100-54= 46%Decrease..

To compliment for table 2 –Transport and communication (13) since it proportion is 56%

35*46/100= 16 = 16 (Transport)

Going back to the initial table…

You have 13 –21 increment 8 increase --8/13 = 62% Decrease..

To compliment for table 2 –Domestic (21) since it proportion is 62%

16*162%/100= 25.92 = 26 (Domestic) --- 26 million **Answer…**

Question 19.

In year 7, if 2.1% of company 1's profits and 4.9% of company 2's profits were reduced to cover employees bonuses, approximately what were the costs incurred by both companies that year if their combined revenue was $ 700,000

In year 7..

Company 1 profit is 368,794

Company 2 profit is 275,662

% reduced respectively 2.1% and 4.9% from each profit…

368,794*97.9/100 = 361,049

275,662 * 95.1/100 = 262,154.6

If combined Revenue is 700,000

Knowing the formulae stated in the table – Profit =Revenue –cost

Both profit after reduction is 361,049 + 262,154.6 = 623,204

Profit = Combined revenue- cost

623,204 = 700,000 – cost

700,000- 623,204 = cost

Cost= 76, 796 = 76,800 **Answer**

Question 20

In year 9, if the cost of operating company 1 is two thirds of company 2, and the company 1 generates , 500,000 naira of revenue…approximately how much revenue was generated by company 2 that year..

Profit for company 1 in year 9 = 334, 791

Company 1 revenue = 500,000

We have from the formulae..

334,791 = 500,000-cost

Cost = 500,000-334,791 = 165,209

Questions says…cost of operating 1 is 2/3 of that of company 2… 2/3 = 66.7%

Ultimate number--- 165,209/66.7 = 250,316.7

Back to formula… Profit = Revenue-cost

289,163 = Revenue – 250,316.7

Revenue = 250,316.7 +289,163 =**539,479 Answer…**

Question 21

Excess International will be closing down their least profitable site.

Here in this case…To know the least pro site… Your income which is your revenue is what you are using to pass judgment…Knowing fully well that after cost and loss have been added together which makes the minus..Then what is left in your revenue is what you use to access the extent of loss or profit..

Geneva --- Revenue – 109

After adding all cost and loss under Geneva you have a total of 166 of this values.

Therefore Revenue - cost & loss =?

109-166= -57

Repeat same for London, Munich, Paris and Rome …They are 164 , 173, 98 & -70 respectively.. Which makes Rome the least profitable site..

Rome...Answer

Question 22

If the operating cost increase globally by 10% next year but payroll costs and sales revenue remain the same, which site would have the best revenue to cost ratio next year…

Solution..

In this case, consider the following factors only... cost and revenue…

Step one.. Operating cost increase globally by 10%

For Geneva --- Operating cost is 55

There you have 55*110/100 = 60.5

If you repeat same for London, Munich, Paris and Rome respectively then you have 105.6, 93.5, 82.5 & 113.3 respectively.

Note the questions says: but Payroll cost and sales Revenue remain the same. Constant... No change!!! E no change oo…

So you have .. GENEVA – Payroll cost and operating cost together 85+60.5 = 146

Now the question is which site would have the best revenue to cost ratio..

REVENUE: RATIO

You have

109:146 …Simply divide 109 by 146…Note the denominator value is higher than the Numerator.. So this would give you something like 0.74

If you do same to others..Respectively, you have

533:316 533/316 = 1.7

495:289 495/289 = 1.7

385:195 385/195 = 2.0 (Paris) The best

254:204 254/204 = 1.3

Therefore answer is Paris.

Question 23.

In march, if employee drives 950 kilometers using the average fuel consumption and 450 kilometers at 1.4% above this average, approximately how much will the fuel cost?

Solution..

Please note that every value, decimal points, numbers and values after decimal points matters…Never round any number up until the final answer…

950 Kilometers distance in march and fuel consumption is 12.5km/liter

Therefore you have 950/12.5 = 76 liters of fuel to cover such distance

The questions also states that 450km distance was covered with 1.4% above the normal rate in March

Meaning 12.5 *100+1.4/100 = 12.5*101.4/100 = 12.675 = Remember..Never round any number up…It is dangerous..

To know the fuel consumption for a 450km for 12.675km/lit … 450/12.675 = 35.5 litters = Remember..Never round any number up… It's dangerous...

Add total fuel used that month and multiply with fuel 76+35.5 = 111.5

Multiply by value per liter= 0.96 ….**You have 111.5*0.96= 107.04…Answer –107.**

Question 24

Approximately how much will it cost in US dollars to buy 50 gallons of fuel during march and april in a 65:35 ration

Solution

Remember..Never round any number up…It is dangerous..

Also 65:35 ratio Meaning 65% to 36%

50*65/100 = 32.5 gallons

50*35/100 = 17.5 gallons

32.5 in march

17.5 in april

Note from the table. It says 1 gallon = 4.5 litters

32.5*4.5 = 146.25 litres

17.5*4.5 = 78.75 litres

Now fuel cost Per litre in March & April are 0.96 , 0.97 respectively

From the table.. 1 pound = 2.01 Us dollars.

There fore you convert 0.96 and 0.97 pound to US dollar..

0.96*2.01 = 1.9296$

0.97*2.01 = 1.9497$

Fuel consumption March was 146.25 liter...Then multiply with 1.9296 = 281.7216

Fuel consumption April was 78.75 liter...Then multiply with 1.9497 = 153.54….

And 281.7216 + 153.54...= $436 **Answer**

Question 25..

The company incures$45 for every minute that a bus is later than 5 minutes and if it is later than 8 minutes, the company pays an additional $20 fee. How much did the delay cost the company over the 6 months…

Solution.. Note the following statement so that you won't failt…

Incurs $45 for every minute ..Remember..Every minute..Every minute….

And if it is later than 8 minutes, the company pays $20 –Note..Not for every minute later than 8 minutes..

Bus A. Had 6 Minutes and 7 Minutes

Meaning (6)1 extra late minutes (7) 2 extra late minute= 3*45 = **135**

Bus B. Had 6 Minutes, 9 Minutes and 10 Minutes

Meaning (6) 1 extra minute late ,(9) 3 extra minute late still below 8 minutes and (9)1 extra minute late above 8 minutes. (10) 3 extra minute late still below 8 minutes and (10)2 extra minute late above 8 minutes – All extra minutes above 5 minutes* 45 = 10*45 = 450 + all extra minute later than 8 which attract $20*2 twice = 450+40 = **490**

Bus C. Had6 minutes and 7 minutes

Meaning (6)1 extra late minutes (7) 2 extra late minute= 3*45 = **135**

135+135+590 = **760 Answer….**

Question 26

Two new buses D&E were introduced… If bus D is 7% Punctual and Bus E is &% later on average than Bus C, which of the five buses is least delayed…

Solution… Get to put introduce bus D and E on the graph firstly…

On average….The key word…

Find average of all buses …January- June

Bus A. 6+2+2+0(cos on the graph) there was no indicator—Be wise+6+7 = 23/6 = 3.8

Bus B. 1+1+5+6+9+10 = 32/6 =5.3

Bus C. 7+6+4+3+3+4 = 27/6 = 4.5

Now, questions says…D is punctual more than C and E later than C..

For D, then ..You have to work your percentage value below..Which 100-7 =93

C, Average punctuality is 4.5

4.5*93/100= 4.2

D = 4.2

For E, then ..You have to work your percentage value above..Which 100+7 =107

4.5*107/100= 4.8

So if you bring out all average set of value, you have A,B,C,D,E values respectively which are

3.8, 5.3, 4.5, 4.2, 4.8 …. Looking at this value…You know A is the least delayed.. **A is the answer**

Question 27

What was the ratio of London rental property value to new York commercial property value in period 1?

Solution…

London Rental property value for period 1 is 20

While New York commercial property value in period 1 is 30

You have 20:30 ..Eliminate 0.. You have **2:3 Answer**

Question 28

If the London experiences the same rate of change in rental stock value as new York did from period 1 to period 2, what will the approximate value of London rental stock be next year in US dollars.

Solution..

Note the word..Rate… Rate of change in rental stock value as new York did from period 1 to 2

Rate of change from the table shows 40 to 50 which is an increment 50-40 = 10

Therefore 10/40 = 0.25*100 = 25% is the rate of change between that period…

So.. Apply 25% rate change to London rental property from period 2 which 30 to get that of next year…

You have 30*100+25/100 =37.5.Approximate**... $38bn Answer….**

Question 29

If the ratio of cars produced last year to sports cars produced this year is 3:5 and 14,000 trucks were produced last year, approximately how many sports cars were produced this year…

Solution..

Note the following.. Ratio of Last year sports cars to this year is 3:5 = 8

14000 trucks were produced last year.

Calculate last year --.. **You need to sharpen your skill to know how to get a whole number in a question reflecting the capital base which all factors pledge allegiance to..**

14000/% of trucks = 14000/14/100 = 14000/0.14 =100,000(Last year) Total vehicle produced..

Now to find sports cars for last year.. You have 23% of sports car..

100,000*23/100 = 23,000 for sports car last year.

And the question says 3:5 ratio to that of this year..

Ratio 3 can represent 23,000 then from all indication ration 5 must be highed than 23,000..You just pick 38,330 straight up which is the answer.

But let's work it out just incase you have something not close like that to be lucky enough…

To find for ratio 5 == Just divide 3/5 = 0.6 then 23000/0.6 = 38,330 which is the **Answer**

Question 30

If 550,000 cars are produced this year and CRS "R" US plans to increase it production of mini-vans by 0.5% each year..approximately how many mini vans will be produced 5 years from now…

Solution…

Note the following…

This Year

Mini vans

By 0.5%

In 5 years..

This year mini van can be calculated by 550,000 * 16/100 = 88,000

You are simply working on 88,000 on the 0.5 % increment for the next 5 years

100+0.5 = 100.5

Please do this for the next 5 years 88,000*100.5/100 = 88,440 YEAR 1

88,440 * 100.5/100 = 88,882.4 YEAR 2

88,882.4* 100.5 /100 = 89,326.6 YEAR 3

89,326.6*100.5/100= 89,773.2 YEAR 4

89,773.2*100.5/100 = 90,222 …Approx….. **90,200 Answwer**

Question 31.

Which factory produced the largest number of defective components in Year 1.

Solution

Year One

Total unit produced…which is defective and good one inclusive…

Defect in % would give you amount of defective produced components from Unit produced..

Factory A . Unit produced 12,000 * Defect of 10%/100 = 1200

Factory B . Unit produced 23,000 * Defect of 5%/100 = 1150

Factory C . Unit produced 14,000 * Defect of 3%/100 = 420

Factory D . Unit produced 13,000 * Defect of 12%/100 = 1560

Factory E . Unit produced 21,000 * Defect of 15%/100 = **3150 (Answer E)**

Question 32

If the trend in the proportion of defectives and units produced per year for factory A continue, how many defects would be expected from factory A in year 5…?

Remember..This is not rate ..but trend…

Factory A specifically…. Unit produced increase 12,000 – 14,000 – 16,000 .so for year 4 & 5, 18,000 & 20,000

While defect % drops at 10%, 8% , 6% so for year 4 & 5 4% , 2%

In year 5 specifically.. work it out…

Defects 2% to unit produced of 20,000 = 20,000* 2/100 = **400 Answer**

Question 33

In year 3 the difference between profit and salaries was $50,000, how much was the total revenue for that year…

Solution

Note.. Difference between profit and salaries produced = 50,000

So do the same in return... 31%- 27% from the table would give 4%

Therefore 50,000/4/100 = 50,000/0.04 = **1, 250, 00 Answer**

Question 34

In year 3 the difference between profit and salaries was 50,000. How much was spent on expenses that year.

From previous calculation.. having known that the overall supreme figure for sales revenue is 1,250,000. Just work out expense 20%

Which is 1250,000*20/100 = **250,000 Answer**

Question 35

Which region has the second smallest combined food and living space footprint…

Solution…

Note the following..

Combined… Food and living space footprint.. You had them up together for each region in %..

Work the population together with the ecological footprint/person …

For Africa… This is how you go about it..

11*900 =9900 * food...39+ living space..7 /100 9900*46/100 = 4554

If you do same for all regions as above.. You'll have

4554, 36,036, 13,545, 9,506, 737.1, 4,702.5 which shows Africa to be the second smallest combined…

A is the answer—Africa

Question 36

Which activity considered across all populations has the second largest effect on the total global ecological footprint?

Solution..

Question is strigh forward…

Which activity…? Is it food, fuel for domestic….and so on…

This case instead of work horizontally across the table..You work vertically..

Food…. 11* 900 = 9900*39/100 = 3861 – Africa -- calculate others yourself. My back dey pain me..

Food…….= 0000 – Asia

Food----------=0000- Europe…

If you do same like that for fuel for domestic and others…

You get for Food= 50,019, Fuel Domestic purpose = 48,743, Fuel transport = 45,975... Which simply makes Fuel domestic purpose as the largest activity with effect on ecological footprint..

Question 37

By approximately how much can the population of south and central America increase before its living space footprint will be equal to Africas?

Solution….

What is the living space footprint of Africa..

900* 11 = 9900 * 7/100 =693

What is the living space South and central America

550*19 =10450 * 6/100 = 627

So we have 693-627 = 66

66/627 = 10.5 = **11% Answer**

Question 38

Solution…

Approximately what proportion of the total number of seats in all buses and trains are empty…?

Solution…

Note the following…

All buses and trains….

Empty seats…

From the table you have Average no of vehicles..

For Bus… 112

For Train… 89

To calculate the total number of seats in the vehicles..

For bus… 112 * Average no of seats (55) = 6160

For train 89 * Average no of seats(430) = 38,270

Now having known the number of seats for this vehicles…

Calculate their non occupancy number…

For Bus = 6160 which is total number of all seats in bus * average of non occupancy 100-51 = 49% , 6160*49/100=3018.4

For train = 34,400 which is total number of all seats in train * average of non occupancy 100- 44= 56%

38,270*56/100 = 21,431.2

Now the real question is proportion of empty seats of buses and trains from the total..

There total number of seats is 44,430 and empty seats are 3018.4+ 21,431.2 = 24,449.6

24,449.6/44,430 = 0.55 * 100 = **55% Answer**