CAREERS360

PRACTICE Series

CLAT 2026

100+ Quantitative Techniques Questions

Contents

Note For the Students 3

About this eBook 5

Practice Questions 6

Answer Key 54

Solutions 55

CLAT Other Useful Resources : (Mock-Tests,Sample Papers) 145

1. CLAT Free Sample Paper
2. CLAT Mock Test with Solutions eBook
3. Know All About CLAT eBook
4. Top 300 Legal Maxims for CLAT Preparation eBook
5. Know Useful CLAT Preparation Tips from Past Toppers eBook

CAREERS360

a Note for the STUDENT

Hello CLAT Aspirants,

As you embark on your journey to conquer the CLAT examination, it's crucial to recognize the significance of the Quantitative Techniques section. This section often hides in the shadows of its more glamorous counterparts, but it holds a pivotal role in determining your success.

The CLAT examination is a formidable challenge, consisting of five sections: English Language, Current Affairs including General Knowledge, Legal Reasoning, Logical Reasoning, and Quantitative Techniques, with varying weightages of 20%,25%, 25%,20% and 10% respectively.

While the English Language and Quantitative Techniques sections may seem familiar due to your schooling up to class 10, they are anything but not easy as it seems.

"Let me emphasize why the Quantitative Techniques section deserves your unwavering attention"

Weightage in CLAT: While this section accounts for 10% of the overall CLAT score, remember that every single mark contributes to your final ranking. Excelling in Quantitative Techniques can be the difference between gaining admission to your dream law school or settling for less.

Fierce Competition: The familiarity of this section to all aspirants makes it intensely competitive. To rise above the rest and secure a competitive edge, you must excel here. This not only boosts your score but also enhances your chances of securing a coveted spot in premier law institutions.

Holistic Skillset: The Legal reasoning requires more than just memorizing laws; it demands logical thinking, problem-solving, and quantitative analysis. Similarly,the Quantitative Techniques section assesses your ability to interpret data, solve mathematical problems, and make informed decisions – skills that are invaluable for a successful legal career.

Time Management: Efficiently managing your time while navigating the Quantitative Techniques section is vital. A well-structured time management strategy will enable you to approach the entire CLAT examination with greater confidence and effectiveness.
Confidence Boost: Scoring well in a section you are already acquainted with can significantly boost your confidence, setting a positive tone for tackling the more challenging sections of the exam.

How to excel in the Quantitative Techniques section?

Consider the following strategies:

Consistent Practice: Dedicate a portion of your daily study routine to practicing quantitative problems. The more you practice, the more comfortable you will become with the diverse question types that may appear in the exam.

Conceptual Clarity: Build a strong foundation by thoroughly understanding fundamental mathematical concepts and techniques. This knowledge will empower you to tackle a wide range of quantitative problems effectively.

Mock Tests: Regularly take CLAT mock tests to simulate the actual exam environment. Analyze your performance to identify areas for improvement and fine-tune your time management skills.

Seek Assistance When Needed: If you encounter challenges with specific topics, don't hesitate to seek help from teachers, peers, or online resources.

In closing, the Quantitative Techniques section is not just about solving mathematical problems; it's about demonstrating your ability to think critically, analyze data, and solve problems efficiently – skills that will serve you well in the CLAT exam and throughout your legal career.

Embrace this section with enthusiasm and diligence. It is a stepping stone to your success in CLAT and opens doors to a rewarding future in law. We have utmost confidence in your potential and wish you the very best in your CLAT journey.

With warm regards,
From Team Careers360

CAREERS360

ABOUT

Our Quantitative Techniques Practice Questions eBook is an indispensable resource for CLAT aspirants. It's authored by a CLAT expert who has mastered the Quantitative Techniques section and provides a comprehensive collection of practice questions with detailed solutions. This eBook serves several critical purposes in your CLAT preparation journey.

Firstly, it bridges the gap between theoretical knowledge and practical application, ensuring that you not only understand the concepts but can also solve real-world problems effectively.

Secondly, it enhances your efficiency and accuracy, two vital components of success in CLAT. Through rigorous practice, you'll not only sharpen your mathematical skills but also learn time-saving strategies.

Effective time management is another key aspect, and our eBook offers a wealth of questions to help you practice pacing yourself during the exam. Moreover, its broad coverage of quantitative topics ensures that you're well-prepared for any question that may appear on the CLAT.

The detailed solutions provided for each question help you understand your mistakes and reinforce the correct problem-solving approach. Confidence-building is also a significant benefit, as regular practice instills self-assurance.

Lastly, the eBook's diverse question bank prepares you for different question types and difficulty levels, ensuring your adaptability in the face of the unexpected in the CLAT examination.

In summary, our Quantitative Techniques Practice eBook is a crucial companion for CLAT preparation, offering a multifaceted approach to honing your skills and boosting your confidence, ultimately increasing your chances of success in the Quantitative Techniques section and the overall CLAT exam.

CAREERS360

PRACTICE QUESTIONS

Passage1
Read the passage carefully and answer the questions that follow

Let us analyze the monthly expenditure data of a household for the past five months. The following information provides details on their spending in three categories - Food, Utilities, and Entertainment.

Month 1:

- Food expenditure: Rs 818

- Utilities expenditure: Rs 318

- Entertainment expenditure: Rs 275

- Total monthly income: Rs 6500

Month 2:

- Food expenditure: Rs 920

- Utilities expenditure: Rs 375

- Entertainment expenditure: Rs 155

- Total monthly income: Rs 5500

Month 3:

- Food expenditure: Rs 880

- Utilities expenditure: Rs 125

- Entertainment expenditure: Rs 235

- Total monthly income: Rs 8500

Month 4:

- Food expenditure: Rs 750

- Utilities expenditure: Rs 220

- Entertainment expenditure: Rs 180

- Total monthly income: Rs 7500

Month 5:

- Food expenditure: Rs 850

- Utilities expenditure: Rs 320

- Entertainment expenditure: Rs 2500

- Total monthly income: Rs 5300

Q1. In which month did the household experience the highest percentage increment in total monthly income compared to the previous month?

a. Month 1
b. Month 2
c. Month 3
d. Month 4

Q2: What was the percentage change in total expenditure from Month 1 to Month 5?

a. 160.09% increase
b. 185.39% decrease
c. 140.29% increase
d. 10% decrease

Q3. In which month did the household spend the highest percentage of their income on entertainment?

CAREERS360

a. Month 1
b. Month 5
c. Month 3
d. Month 4

Q4. Calculate the average percentage of income spent on utilities over the five months.

a. 6.48%
b. 6.6%
c. 4.43%
d. 6.8%

Passage 2
Read the passage carefully and answer the questions that follow

Once upon a time, there were five friends who loved to explore the fascinating world of numbers. They called themselves "The Fantastic Five." One sunny afternoon, they decided to challenge themselves with some intriguing Average problems. Here are some of the details of this group of friends:

The Fantastic Five's average age was 24 years.

Being sports enthusiasts, the Fantastic Five often played basketball.

Q5. The first problem was about their ages. However, they were joined by a new friend, whose age was 28 years 8months. Curious to know how their group's average age would change, they carefully calculated the answer.

a. 24.78 years
b. 24.5 years
c. 25 years
d. 25.2 years

Q6. The average weight of the Fantastic Five, comprising 30 students, was 55 kg. Suddenly, their teacher, who weighed 75 kg, decided to join their ranks. Excited to find out the new average weight, they dove into the calculations.

a. 56 kg
b. 58 kg
c. 55.64 kg
d. 60 kg

Q7. In the last 5 games, they scored 20, 15, 30, 25, and 35 points, respectively. Now, their points changed as follows:

15% increased for 1st, 25% decreased for second, constant for 3rd, 20% increased for 4th, constant for 5th.

Eager to know their change in overall average points in percentage form, they took on this challenge.

a. 2.6%
b. 2.5%
c. 3.4%
d. 2.3%

Q8.As young entrepreneurs, the Fantastic Five managed a company. The average monthly salary of their 10 employees was Rs 4,000. They decided to include their manager's salary, which was Rs. 8,000, and wondered how this would affect the new average salary.

a. Rs 4,500
b. Rs 4,800
c. Rs 4,363.64
d. Rs 5,200

Passage 3
Read the passage carefully and answer the questions that follow

An art competition is being held at a local gallery, and participants are required to mix different colors of paint to create new shades. The artists have three types of paint: Red, Blue, and Yellow.

1. Artist A mixes Red and Blue paint in the ratio 13:15 to create a new shade, which weighs 1400 liters.

2. Artist B mixes Blue and Yellow paint in the ratio 16:18 to create another shade, which weighs 1530 liters.

3. Artist C combines Red and Yellow paint in the ratio 12:20 to create a third shade, which weighs 1920 liters.

4. To create the final masterpiece, all three artists pour their shades into a single container.

5. The gallery owner wants to know the percentage of Red, Blue, and Yellow in the final mixture.

Now, let's proceed to the challenging Multiple Choice Questions (MCQs):

Q9. What is the ratio of Red, Blue, and Yellow in the final mixture?

a. 111:153:145
b. 131:142:135
c. 137: 147: 201
d. 110:152:114

Q10. What is the percentage of Red paint in the final mixture?

a. 18.92%
b. 28.24%
c. 24.36%
d. 26.79%

Q11.What is the percentage of Yellow paint in the final mixture?

a. 18.92%
b. 28.24%
c. 41.44%
d. 26.79%

Q12:What is the ratio of weight of the blue and red colours in final mixture?

a. 117 : 137
b. 145 : 137.
c. 141: 121.
d. 147 : 137.

Passage 4
Read the passage carefully and answer the questions that follow

A retailer, Mr. Smith, manages a small clothing store offering a variety of shirts. Let's examine some of the business scenarios he came across during the past month to understand the concept of profit and loss.

Case 1

Mr. Smith purchased a stylish shirt from a wholesaler for Rs435. He was confident about its appeal and decided to sell it at a higher price to make a profit. After showcasing the shirt in his store for a few days, a customer was captivated by its design and quality, and willingly paid Rs611 to purchase it. Now, let's calculate the percentage profit earned on this sale.

Case 2

Impressed by his success with the shirt, Mr. Smith decided to expand his product range. He explored various options and finally settled on a high-quality product manufactured by a reputed company. The cost price of each unit was Rs1515, and he intended to make a profit of 55% on its sale. Also, to attract the customers he wanted to offer them a whopping 15% discount.

Case 3

Intrigued by the business prospects, John, a friend of Mr. Smith, decided to invest in this venture. He bought a laptop from Mr. Smith for Rs19200. However, due to a change in circumstances, John had to resell the laptop to another friend, Jane, at a 8.33% loss.

Case 4

In an unfortunate turn of events, a heavy storm hit the area where Mr. Smith's store was located. As a result, 410 pens got damaged beyond repair. He had purchased a pack of 65 pens for Rs125 and intended to sell them at Rs3 each.

Q13: By how much the selling price be increased so as to increase the percentage profit earned on the sale of the shirt by 25%?

a. Rs 520.45.
b. Rs 609.45.
c. Rs 719.45.
d. Rs 660.45.

Q14. What percentage shall be the selling price less than the marked price of the product?

a. 8.76%
b. 4.76%
c. 5.76%
d. 6.76%

Q15. Jane sold the laptop to Alex at a price that gave him a profit of 10%. How much did Alex pay for the laptop?

a. Rs 1080
b. Rs 1122
c. Rs 19360
d. Rs 1180

Q16.What was the percentage profit earned by Mr. Smith, considering the loss of 10 pens?

a. 60%
b. 66.67%
c. 32%
d. 47.52%

Passage 5
Read the passage carefully and answer the questions that follow

The tech enthusiasts of Banglore are not just limited to laptops and gadgets; they also have a keen interest in the latest smartphones. The city's largest mobile store, MobileMania, is hosting a Grand Smartphone Carnival. Shoppers are thrilled to explore the wide array of smartphones, each with its unique features and price tags. Besides percentages, the customers are also engaging in complex average calculations to determine the best deals.

Scenario1: Smartphone Prices

MobileMania proudly showcases an impressive collection of smartphones, each belonging to a distinct price category. Here are the prices (in Rs) of five popular smartphones offered at the carnival:

1. Smartphone A: Rs 850

2. Smartphone B: Rs 960

3. Smartphone C: Rs 780

4. Smartphone D: Rs 1020

5. Smartphone E: Rs 890

Scenario 2: Discounted Smartphones

To add more excitement to the carnival, MobileMania decides to offer special discounts on certain smartphones. The discounted prices (in Rs) are as follows:

1. Smartphone A: Rs 765

2. Smartphone C: Rs 624

3. Smartphone E: Rs 801

Shrewd shoppers are eager to recalculate the new average price of the discounted smartphones to assess the actual savings.

Customers are intrigued to know the average price of these five smartphones to gauge the overall affordability of this diverse range.

Scenario 3: Smartphone Reviews

In the midst of the Carnival's buzz, customers also take note of smartphone reviews. They rate the smartphones on a scale of 1 to 10, with 10 being the highest. The average review scores for three of the smartphones are as follows:

1. Smartphone A: 8.5

2. Smartphone C: 7.2

3. Smartphone E: 9.0

Curious to assess the overall impression of the top-rated smartphones, tech enthusiasts aim to find the average review score.

Scenario 4: Smartphone Brands

As the tech enthusiasts of Bengalore dabble in the complexities of average calculations amidst the Grand Smartphone Carnival, they realize that informed decisions are crucial in this tech-driven world.

As the Grand Smartphone Carnival continues to draw crowds, MobileMania has categorized the smartphones into different brands to cater to diverse consumer preferences. Let's explore the prices (in dollars) of smartphones from three popular brands available at the carnival:

Brand X:

1. Smartphone X1: Rs720

2. Smartphone X2: Rs860

3. Smartphone X3: Rs950

4. Smartphone X4: Rs800

Brand Y:

1. Smartphone Y1: Rs780

2. Smartphone Y2: Rs890

3. Smartphone Y3: Rs920

Brand Z:

1. Smartphone Z1: Rs920

2. Smartphone Z2: Rs800

3. Smartphone Z3: Rs940

4. Smartphone Z4: Rs860

5. Smartphone Z5: Rs890

Customers are curious to know the average price of smartphones from each brand to determine which brand offers the most competitive pricing.

Q17. If MobileMania decides to offer a 15% discount on the original price of each smartphone and later gives an additional 5% cashback on the discounted price, what is the new average price of the smartphones after applying both discounts?

a. Rs 726.75
b. Rs 755
c. Rs 731
d. Rs 746

Q18. If a customer purchased Smartphone E at the discounted price and paid Rs 1000, what is the percentage discount offered on Smartphone E?

a. 22.85%
b. 19.9%
c. 20.20%
d. 24.22%

Q19. Customers at the Carnival have reviewed three smartphones on a scale of 1 to 10, with 10 being the highest rating. The average review scores for three of the smartphones are as follows:

1. Smartphone A: 8.5

2. Smartphone C: 7.2

3. Smartphone E: 9.0

If a customer believes that Smartphone D, which is yet to be reviewed, will receive a review score of 8.8, what will be the new average review score after including the review for Smartphone D?

a. 6.6
b. 8.375
c. 9.7
d. 4.4

CAREERS360

Q20. MobileMania has categorized smartphones into different brands to cater to diverse consumer preferences during the Grand Smartphone Carnival. The prices (in Rs) of smartphones from three popular brands, Brand X, Brand Y, and Brand Z, are given. If the average price of smartphones from Brand X is 10% less than the average price of smartphones from Brand Y, what is the average price (in Rs) of smartphones from Brand Z?

a. 860
b. 882
c. 900
d. 920

Passage 6
Read the passage carefully and answer the questions that follow

In this data interpretation (DI) exercise, we will analyze the sales data of a company for three consecutive years (2019, 2020, and 2021). The company has two regions, Region A and Region B, where it conducts its sales operations. We will calculate the percentage increase in total sales and region-wise sales over the years and answer some challenging questions based on the data.

Company Sales Data for the Years 2019, 2020, and 2021

The following passage presents the sales data of a company for three consecutive years, 2019, 2020, and 2021. The data includes the total sales and the sales figures for Region A and Region B for each of these years.

In the year 2019, the company recorded total sales amounting to ₹10,00,000. Out of this total, Region A contributed ₹4,00,000, while Region B accounted for ₹6,00,000 in sales.

Moving on to the year 2020, the company witnessed growth in its sales performance. The total sales increased to ₹12,00,000, showing a significant rise compared to the previous year. In 2020, Region A observed an increase in sales and contributed ₹5,00,000, while Region B also experienced growth in sales and contributed ₹7,00,000.

Continuing the trend, in the year 2021, the company's sales figures reached ₹15,00,000, indicating continued expansion in sales over the three-year period. Region

A continued its upward trajectory and achieved sales of ₹6,00,000. Similarly, Region B demonstrated substantial growth and recorded sales of ₹9,00,000.

Q21. Suppose the company plans to expand its operations to a new region, Region C, in 2022. The company expects the sales in Region C to be equal to the average sales of Region A and Region B in 2021. What would be the total sales of the company in 2022 if the sales in Region A and Region B remain the same as in 2021?

a. ₹22,50,000
b. ₹24,00,000
c. ₹25,50,000
d. ₹27,00,000

Q22. Calculate the average percentage increase in sales for both regions from 2019 to 2021.

a. 22.26%
b. 40%
c. 45%
d. 50%

Q23. If the sales in Region A in 2022 increased by 20% compared to 2021, and the sales in Region B remained the same as 2021, what is the total sales in 2022?

a. ₹18,00,000
b. ₹16,20,000
c. ₹20,00,000
d. ₹21,00,000

Q24. In 2021, if the percentage increase in total sales is the same as the percentage increase in sales for Region A, what is the total sales in Region B for 2021?

a. ₹8,00,000
b. ₹8,40,000
c. ₹8,80,000
d. ₹9,20,000

Passage 7
Read the passage carefully and answer the questions that follow

A company named "GlobeGrowth" is engaged in the production and sale of electronic gadgets. In the financial year 2022-2023, the company's total revenue was Rs. 1,28,55,750. Out of this, 45% came from domestic sales, 51% from international sales, and the rest from online sales.

The cost of production for the year amounted to Rs. 85,54,650, which includes 38% of raw material expenses, 25% of labor expenses, and the rest as overhead costs. The company also incurred Rs. 5,25,450 on advertising and marketing, which accounts for 2.5% of the total revenue.

Q25.What was the total revenue generated from online sales for GlobeGrowth in the financial year 2022-2023?

a. Rs. 9,14,230
b. Rs. 8,14,230
c. Rs. 5,14,230
d. Rs. 6,14,230

Q26.What was the net profit percentage for the company after deducting all expenses from the total revenue?

a. 40%
b. 37.63%
c. 14.19%.
d. 29.39%.

Q27.If the company decides to increase the advertising and marketing budget to Rs. 7,50,000 for the next financial year, and this expense remains the same percentage of total revenue, what should be the target revenue for the company to achieve a net profit of 20%?

a. 18,75,800.
b. 14,18,75,800.
c. 12,18,75,800.
d. 1,18,75,800.

Q28.Due to a decline in international sales, the company decides to shift its focus to domestic sales, aiming to increase domestic sales to 60% of the total revenue. If the total revenue remains the same, what should be the percentage increase in domestic sales to achieve this target?

a. 40%
b. 33.38%
c. 14.19%.
d. 25%

Passage 8
Read the passage carefully and answer the questions that follow

A company, "InnovateTech," gives annual salary increments to its employees based on their performance. The salary increment percentages for the past three years are as follows:

Year 1: 12% increment for all employees.

Year 2: 11% increment for employees who performed well in the previous year, 5% increment for average performers, and no increment for low performers.

Year 3: 22% increment for top performers, 9% increment for employees with satisfactory performance, and 3% increment for employees who need improvement.

The average salary of employees at the beginning of Year 1 was Rs. 75,550 per month.

Q29.If an employee received an increment of Rs. 2,800 in Year 2, what was the salary of that employee at the beginning of Year 2?

a. Rs. 50,225
b. Rs. 45,225
c. Rs. 84,616.
d. Rs. 45,300

Q30.If the average salary of employees at the beginning of Year 3 increased by 15% compared to the previous year, what was the average salary of employees at the beginning of Year 2?

a. Rs. 50,225
b. Rs. 45,225
c. Rs. 49,425
d. Rs. 97,308.40.

Q31.In Year 3, 30% of the employees were top performers, 40% had satisfactory performance, and the rest needed improvement. If an employee with satisfactory performance had a salary of Rs. 60,000 at the beginning of Year 3, what was the salary of a top performer at the beginning of Year 3?

a. Rs. 50,225
b. Rs. 45,225
c. Rs. 49,425
d. Rs. 73,200.

Q32.In Year 1, InnovateTech hired 50 new employees, and their average starting salary was 10% less than the average salary of existing employees. If the average salary of all employees at the beginning of Year 1 was Rs. 50,000, what was the average starting salary of the new employees?

a. Rs. 91,875
b. Rs. 98,897
c. Rs. 84,930
d. Rs. 89,240

Passage 9
Read the passage carefully and answer the questions that follow

A group of students appeared for five different subject tests: Mathematics, Physics, Chemistry, History, and English. The number of students and their respective average scores in each subject are as follows:

Mathematics: 89 students with an average score of 86.

Physics: 95 students with an average score of 73.

Chemistry: 120 students with an average score of 99.

History: 88 students with an average score of 56.

English: 67 students with an average score of 81.

Q33.What is the overall average score of all the students in these five subjects?

a. 40
b. 80
c. 140
d. 20

Q34.If 25% of the students who took the Chemistry test scored 100 marks, what was the average score of the remaining students who took the Chemistry test?

a. 45
b. 37
c. 89
d. 99

Q35. In the Mathematics test, the top 10% of students scored an average of 95. If these students are excluded, what is the new average score of the remaining students in the Mathematics test?

a. 68.85
b. 90.22
c. 84.89
d. 85.6

Q36.In the Physics test, the average score of the first 50 students was 75. To increase the average to 78, what should be the average score of the remaining students?

a. 40.52
b. 37.63
c. 84.19
d. 81.3333

CAREERS360

Passage 10
Read the passage carefully and answer the questions that follow

A group of investors started a company called “PIRA” with an initial investment of Rs. 1,25,380. In the first year, the company made a profit of 25%. In the second year, the company incurred a loss of 15%. However, the company bounced back in the third year with a profit of 15%. After the third year, three investors decided to leave the company, and they sold their shares at a loss of 8% on their initial investment.

Q37.What was the total profit/loss percentage for PIRA after the first three years, taking into account the investors who left the company?

a. 40%
b. 37.63%
c. 14.19%.
d. 25%

Q38. After three years of operation, the company "PIRA" experienced fluctuations in its financial performance. Given the initial investment of Rs. 1,25,380, and considering the profits and losses over the years, what would be the total amount received by the three investors who decided to leave the company after the third year, selling their shares at a loss of 8% on their initial investment?

a. 115108
b. 113108
c. 123108
d. 116108

Q39. If the three investors who left the company had invested Rs. 75,590 each, what was the total amount of loss incurred by those investors during their exit?

a. 11,141.60
b. 13,141.60
c. 18,141.60
d. 19,141.60

Q40. In the fourth year, PIRA managed to increase its profit by 25%. If the company’s expenses remained the same, what was the total profit percentage for the company in the fourth year?

a. 25.03%.
b. 18%
c. 22.1%

d. 19,14%

Passage 11
Read the passage carefully and answer the questions that follow

A metallurgical company manufactures three types of alloys: Alloy-A, Alloy-B, and Alloy-C. The company mixes these alloys in different proportions to create a final mixture with specific characteristics. The percentage composition of each alloy is as follows:

Alloy-A: 45% Copper, 33% Zinc, and 22% Nickel.

Alloy-B: 66% Copper, 28% Zinc, and 6% Nickel.

Alloy-C: 35% Copper, 42% Zinc, and 23% Nickel.

The company decides to create a new alloy, Alloy-D, by combining Alloy-A and Alloy-B in a specific ratio. They want the final mixture to have 50% Copper, 27% Zinc, and 23% Nickel.

Q41. In what ratio (by weight) should Alloy-A and Alloy-B be mixed to create Alloy-D?

a. 8 : 5
b. 6 : 9
c. 8 : 7
d. 8 : 9

Q42. If Alloy-D is created by mixing 10 kg of Alloy-A and 20 kg of Alloy-B, what will be the percentage composition of Alloy-D?

a. 61% Copper- 29.67% Zinc- 11.33% Nickel
b. 59% Copper- 29.67% Zinc- 11.33% Nickel
c. 59% Copper- 29.67% Zinc- 12.33% Nickel
d. 59% Copper- 19.67% Zinc- 11.33% Nickel

Q43. To make the final mixture corrosion-resistant, the company wants to increase the Nickel percentage in Alloy-D to 30%. If they decide to add some Alloy-C to Alloy-D, what weight of Alloy-C should be added to 30 kg of Alloy-D?

a. 110
b. 134.57 kg

c. 28.57 kg
d. 128.57 kg

Q44. If the company mistakenly mixed Alloy-A and Alloy-C in a 5:7 ratio instead of Alloy-A and Alloy-B, what would be the percentage of Zinc in the final mixture?

a. 11.10%
b. 28.25%.
c. 45.25%.
d. 38.25%.

Passage 12
Read the passage carefully and answer the questions that follow

In a recent examination conducted among 1500 students, the data for the percentage of students obtaining different grades were recorded. The grades considered were A+, A, B+, B, C, and D. The data is presented below:

Grade: A+

Percentage of Students: 24%

Grade: A

Percentage of Students: 27%

Grade: B+

Percentage of Students: 18%

Grade: B

Percentage of Students: 12%

Grade: C

Percentage of Students: 15%

Grade: D

Percentage of Students: 3%

Rest were detained and were not promoted.

Please use the information provided in the passage to answer the following tough multiple-choice question:

Q45.If the school awards scholarships to the top 15% of students who scored Grade A+, how many students will not receive scholarships?

a. 54
b. 1446
c. 25
d. 30

Q46. In a recent examination, the school decided to give a 8% grace mark to all students who scored a Grade B. After applying the grace mark, the percentage of students who scored a Grade B increased to 14%. How many students scored a Grade B after applying the grace mark? Calculate the increased percentage too.

a. 60,16.66%
b. 30 , 16.66%
c. 120, 24%
d. 150, 16.66%

Q47. In the recent examination, the school announced that the top 30.6% of students who scored either an A+ or A grade would receive a special recognition. how many students would not receive a special recognition?

a. 100
b. 120
c. 531
d. 600

Q48. Out of the 1500 students, what percentage of students scored either Grade B+ or Grade B is more or less than students scored Grade C and grade D ?

a. 90
b. 100
c. 150
d. 210

CAREERS360

Passage 13
Read the following information and answer the following information

A leading electronics store, "TechZone," is offering various electronic gadgets for sale. The store's cost price (CP) and marked price (MP) for four products – smartphones, laptops, tablets, and smartwatches, are given below:

1. Smartphones: CP = Rs. 12,450, MP = Rs. 18,150

2. Laptops: CP = Rs. 40,380, MP = Rs. 60,300

3. Tablets: CP = Rs. 25,250, MP = Rs. 28,500

4. Smartwatches: CP = Rs. 8,560, MP = Rs. 12,150

TechZone is offering the following discounts on each product:

1. Smartphones: 20% off on MP

2. Laptops: 25% off on MP

3. Tablets: 15% off on MP

4. Smartwatches: 10% off on MP

Q49.If a customer purchases 3 smartphones, 2 laptops, 4 tablets, and 5 smartwatches, how much discount will the customer receive on the total bill?

a. Rs. 64,215
b. Rs. 66,215
c. Rs. 55,215
d. Rs. 51,215

Q50. Due to a change in market trends, TechZone decides to offer an additional 5% discount on the discounted price of each product. What will be the selling price (SP) of one laptop after the additional discount?

a. Rs. 44,963.75.
b. Rs. 42,963.75.
c. Rs. 40,963.75.
d. Rs. 22,963.75.

Q51. TechZone purchased 50 smartphones at a bulk rate of Rs. 10,000 per smartphone. If TechZone decides to sell the smartphones at a 10% discount on the MP, what should be the selling price of one smartphone?

a. Rs. 9,185.
b. Rs. 8,180
c. Rs. 6,185.
d. Rs. 8,185.

Q52. What is the selling price of a laptop after applying the discount at TechZone?

a. Rs. 50,225
b. Rs. 45,225
c. Rs. 49,425
d. Rs. 45,300

Passage 14
Read the given information very carefully and answer the questions that follow.

A chemistry laboratory is conducting an experiment to create a chemical solution. The solution requires the mixing of three different chemicals: Chemical-A, Chemical-B, and Chemical-C. The laboratory has prepared solutions of each chemical with different concentrations.
The concentration of each chemical in its respective solution is as follows:

Chemical-A: 11% concentration.

Chemical-B: 24% concentration.

Chemical-C: 45% concentration.

The laboratory technician plans to mix these solutions in specific ratios to create the final chemical solution. He decides to use allegations to find the most suitable mixture.

Q53. To create a solution with a concentration of 33%, what ratio of Chemical-A and Chemical-B should be mixed?

a. 9 : 21
b. 5: 22
c. 9 : 22
d. 9 : 17

Q54. If the technician mixed 2 liters of Chemical-A with 3 liters of Chemical-B in the first attempt, but the concentration was lower than expected, he decides to add 1 liter of Chemical-C to the mixture. What is the new concentration of the final mixture?

a. 40%
b. 37.63%
c. 14.19%.
d. 23.17%.

Q55. To create a highly concentrated solution, the technician plans to mix Chemical-A and Chemical-C in a 12:17 ratio. If he uses 108 liters of Chemical-A, how much Chemical-C should he add to the mixture?

a. 88.31 liters
b. 112.31 liters
c. 60.31 liters
d. 63.31 liters

Q56. The technician wants to verify the concentration of a solution. He takes 14 liter of the solution and mixes it with 18 liters of pure water. The resultant concentration is 16%. What was the original concentration of the solution?

a. 40%
b. 37.63%
c. 14.19%.
d. 28.44%

Passage 15
Read the given information very carefully and answer the questions that follow.

In a survey conducted among 800 employees of a multinational corporation, the data for the percentage of employees' salaries in different salary ranges were recorded. The salary ranges considered were as follows:

Salary Range 1: Less than Rs45,580

Percentage of Employees: 32%

Salary Range 2: Rs40,500 - Rs65,510

Percentage of Employees: 45%

Salary Range 3: Rs65,660 - Rs80,500

Percentage of Employees: 15%

Salary Range 4: Rs.80,650 - Rs.120,650

Percentage of Employees: 6%

Salary Range 5: More than Rs130,000

Percentage of Employees: 2%

Q57. If the average salary of employees in Salary Range 2 is Rs.55,510 and the average salary of employees in Salary Range 3 is Rs.75,520, what is the ratio of the total salary of employees in Salary Range 2 to the total salary of employees in Salary Range 3?

a. 8543:1152
b. 5552:2205
c. 1252:1527
d. 16653:7552.

Q58. If the number of female employees in Salary Range 2 is 36% of the total employees in that range and the number of male employees in the same range is 144, what is the total number of employees in Salary Range 2?

a. 300
b. 225
c. 400
d. 450

Q59. What is the difference between number of employees earn a salary in the range of Rs 65,600 - Rs.120,000, And those in range of Rs30,000 - Rs40,000?

a. 38
b. 93
c. 88
d. 231

Q60. In the survey conducted, 20% of the employees who left the company joined the multinational corporation, but 35% left it. what is the number of employees

earning between Rs50,000 and Rs60,000 (inclusive of both salary ranges),if it remains unchanged?

a. 38
b. 93
c. 252
d. 231

Passage 16
Read the given information very carefully and answer the questions that follow.

A school conducted a survey to understand the preferences of its students regarding extracurricular activities. The survey data revealed the percentage of students interested in various activities. The activities considered were sports, music, art, debate, and science club. Using this data, let's analyze the preferences of the students.

Percentage of Students Interested in Sports: 35%

Percentage of Students Interested in Music: 18%

Percentage of Students Interested in Art: 17%

Percentage of Students Interested in Debate: 11%

Percentage of Students Interested in Science Club: 19%

Please use the information provided in the passage to answer the following tough multiple-choice questions:

Q61. If there are 700 students in the school, how many more students are interested in Sports than in Debate and Science Club combined?

a. 120
b. 35
c. 160
d. 180

Q62. Based on the given data, if there are a total of 800 students in the school, how many students are interested in both Sports and Music?

a. 108 students
b. 144 students

c. 162 students
d. 216 students

Q63. If 118 students are interested in both Sports and Art, what is the percent of students are interested in neither Sports nor Art?

a. 43.25%
b. 33.25%
c. 37.8 %
d. 45.2 %

Q64. If the school wants to organize an event that involves at least two of the activities (Music, Debate, and Science Club), what is the percentage of students that can potentially participate in the event?

a. 37 %
b. 35.4 %
c. 26.7 %
d. 27.8 %

Passage 17
Read the given information very carefully and answer the questions that follow.

A juice vendor is known for preparing unique fruit juice mixtures. In one of his experiments, he mixed three different types of fruit juices: Apple Juice, Orange Juice, and Pineapple Juice. The vendor kept the mixture proportions in a ratio of 3:5:7 for Apple Juice, Orange Juice, and Pineapple Juice, respectively.

He tested the juice mixture for quality, and after analyzing its taste, he found that it was not up to the mark. To improve the taste, the vendor decided to increase the amount of Apple Juice in the mixture by 25% while keeping the quantities of Orange Juice and Pineapple Juice the same.

The juice vendor noticed that the new mixture was still not satisfying. To further enhance the taste, he added another 4 liters of Pineapple Juice to the mixture. However, he also realized that he needed to maintain the initial ratio of Apple Juice, Orange Juice, and Pineapple Juice to retain the distinct flavors.

Q65.What was the total quantity of the initial mixture if the vendor used 12 liters of Orange Juice?

a. 86 liters
b. 46 liters
c. 36 liters
d. 55 liters

Q66. After the juice vendor's initial experiment mixing Apple Juice, Orange Juice, and Pineapple Juice in the ratio of 3:5:7, he decided to make some improvements. Given the vendor's actions, what is the final ratio of Apple Juice, Orange Juice, and Pineapple Juice in the new mixture?

a. 3:5:7
b. 4:5:7
c. 3:6:7.5
d. 4.6 : 6.1 : 12.6.

Q67. The vendor now wanted to prepare a special mixture with a ratio of Apple Juice, Orange Juice, and Pineapple Juice as 5:7:9. If he had 20 liters of Pineapple Juice, how much Orange Juice should he add to the mixture to maintain the desired ratio?

a. 10.56 liters
b. 9.56 liters
c. 11.56 liters
d. 15.56 liters

Q68. What should be the total quantity of the final mixture after these changes to maintain the initial ratio of Apple Juice, Orange Juice, and Pineapple Juice?

a. 20 liters
b. 28 liters
c. 32 liters
d. 45liters

CAREERS360

Passage 18
Read the given information very carefully and answer the questions that follow.

A retail store, “SmartMart,” sells various electronic gadgets. During the past year, the store recorded the cost price and selling price of five different products: smartphones, laptops, tablets, smartwatches, and headphones. Using this data, let’s analyze the profit and loss percentages for each product.

Product: Smartphones

Cost Price: Rs20500

Selling Price: Rs28050

Product: Laptops

Cost Price: Rs80550

Selling Price: Rs115000

Product: Tablets

Cost Price: Rs9550

Selling Price: Rs14520

Product: Smartwatches

Cost Price: Rs2150

Selling Price: Rs3180

Product: Headphones

Cost Price: Rs850

Selling Price: Rs1150

Q69:What is the ratio of profit percentage earned on the sale of laptops with compared to that of headphones ?

a. 15 : 8
b. 15 : 7
c. 11 : 4
d. 43:35

Q70. The store offers a 14% discount on the selling price of tablets during a festive sale. If the store still wants to make a profit of 15% on the cost price, what should be the new selling price of tablets during the sale?

a. Rs.3521.2
b. Rs.3600.5
c. Rs.3780.2
d. Rs.10982.50

Q71. SmartMart offers a 23% discount on all products during a clearance sale. If the store incurs a loss of 5% on the cost price after offering the discount, what is the effective selling price of headphones during the clearance sale?

a. Rs 543.75
b. Rs 425
c. Rs 416.25
d. Rs 621.77

Q72. The store manager wants to introduce a new pricing strategy for smartphones to increase sales. If the selling price of smartphones is reduced by Rs1500, the number of smartphones sold increases by 20%. What is the profit percentage earned on the sale of smartphones with the new pricing strategy?

a. 29.51% ,with decrease in profit
b. 25%, with increase in profit
c. 35% , with decrease in profit
d. 35% , with increase in profit

Passage 19
Read the given information very carefully and answer the questions that follow.

In a school, there are 330 students in total. A recent examination was conducted in five subjects: Mathematics, Physics, Chemistry, History, and English. The following data represents the average test scores of the students in each subject:

Mathematics: 88

Physics: 79

Chemistry: 91

History: 73

English: 87

Q73. If 60% of the students passed in all five subjects, and the rest failed in at least one subject, what is the maximum possible average score for the students who passed in all subjects?

a. 203.45
b. 113.6
c. 83.6
d. 93.6

Q74. Due to an error in calculation, the average score of the Chemistry test was wrongly recorded as 96 instead of 92. If this error was corrected, what would be the new overall average test score for all subjects?

a. 519
b. 419
c. 619
d. 219

Q75.Among the students who took Mathematics, the average score of boys was 90, and the average score of girls was 80. If the number of boys who took the exam was 120, what was the average test score of all the students who took Mathematics?

a. 64
b. 54
c. 84
d. 54

Q76. What is the overall average test score for all subjects?

a. 81.6
b. 83.6
c. 83.8
d. 85.26

CAREERS360

Passage 20
Read the given information very carefully and answer the questions that follow.

A construction company is working on three different projects: Project A, Project B, and Project C. The company has employed workers for each project and recorded their working hours. Additionally, the company also recorded the ratio of skilled to unskilled workers for each project. Let's analyze the information to understand the workforce composition.

Project: A

Skilled Workers: 45

Unskilled Workers: 75

Working Hours of Skilled Workers: 1,155

Working Hours of Unskilled Workers: 2,250

Project: B

Skilled Workers: 65

Unskilled Workers: 85

Working Hours of Skilled Workers: 2,575

Working Hours of Unskilled Workers: 3,6500

Project: C

Skilled Workers: 35

Unskilled Workers: 55

Working Hours of Skilled Workers: 1,285

Working Hours of Unskilled Workers: 1,850

Please use the information provided in the passage to answer the following tough multiple-choice questions:

Q77. What is the ratio of skilled to unskilled workers for all three projects combined?

a. 29:43
b. 4:71
c. 52:31
d. 5:8

Q78. The company wants to calculate the average working hours of all skilled workers across the three projects. What is the average working hours of skilled workers?

a. 37.78
b. 11.78
c. 34.58
d. 7.78

Q79. The construction company wants to increase the productivity of all projects by increasing the total working hours of skilled workers by 15%. If the average working hours of skilled workers in Project B are 40% more than the average working hours of skilled workers in Project C, what is the total increase in working hours of skilled workers in Project A?

a. 173.25 hours
b. 184.5 hours
c. 195.75 hours
d. 207 hours

Q80.The company wants to increase the productivity of Project B by hiring more skilled workers. If the number of skilled workers in Project B increases by 40%, what is the new ratio of skilled to unskilled workers in Project B if the current ratio is 12:13?

a. 1:1
b. 2:3
c. 91:85
d. 4:5

CAREERS360

Passage 21
Read the given information very carefully and answer the questions that follow.

A retail store, “Fashion Hub,” sells clothing and accessories. During the past year, the store recorded the cost price and selling price of five different products: dresses, shirts, handbags, shoes, and jewelry. Using this data, let’s analyze the profit and loss percentages for each product.

Product: Dresses

Cost Price: Rs1155

Selling Price: Rs2550

Product: Shirts

Cost Price: Rs8110

Selling Price: Rs7150

Product: Handbags

Cost Price: Rs1190

Selling Price: Rs1680

Product: Shoes

Cost Price: Rs1200

Selling Price: Rs1150

Product: Jewelry

Cost Price: Rs25600

Selling Price: Rs32520

Please use the information provided in the passage to answer the following tough multiple-choice questions:

CAREERS360

Q81.What is the overall profit percentage earned by the store from the sale of all products combined?

a. 15%
b. 21%
c. 25%
d. 35%

Q82.For which product did the store incur the maximum profit percentage ?

a. Dresses
b. Shirts
c. Handbags
d. Jewelry

Q83. The store manager wants to introduce a new pricing strategy for handbags to increase sales. If the selling price of handbags is reduced by Rs150, the number of handbags sold increases by 25%. If originally 155 bags were sold, What is the profit percentage earned on the sale of handbags with the new pricing strategy?

a. 12.5%
b. 28.57%
c. 17.5%
d. 20%

Q84. The store wants to offer a 15% discount on dresses during a clearance sale. If the store still wants to make a profit of 25% on the cost price, what should be the new selling price of dresses during the sale?

a. Rs1187.50
b. Rs1195
c. Rs1227.19.
d. Rs2112.50

Passage 22
Read the following information and answer the following questions.

A retail store, “HALD HUB,” sells clothing and accessories. The store has been tracking the sales performance of its various product categories over the last three months. The following information is available:

Month: April

Total sales revenue: Rs. 8,55,650

Sales of clothing: 55% of total sales revenue

Sales of accessories: 45% of total sales revenue

Month: May

Total sales revenue: Rs. 10,28,690

Sales of clothing: 35% of total sales revenue

Sales of accessories: 65% of total sales revenue

Month: June

Total sales revenue: Rs. 12,55,890

Sales of clothing: 59% of total sales revenue

Sales of accessories: 41% of total sales revenue

Q85.What was the percentage increase in the total sales revenue from April to June?

a. 46%
b. 47%
c. 48%
d. 49%

Q86. What was the percentage increase in the sales revenue of accessories from April to June?

a. 15%
b. 20.10%
c. 25.85%
d. 33.72%

Q87. If the sales of clothing in June increased by 28% compared to May, what was the sales revenue from clothing in June?

a. Rs. 660853.12
b. Rs. 560853.12
c. Rs. 460853.12
d. Rs. 760853.12

Q88. The store aims to increase the sales of accessories in May by 15% compared to April. What should be the sales revenue from accessories in May to achieve this target?

a. Rs. 660853.
b. Rs. 560853.
c. Rs. 460853.12
d. Rs. 4,42,798.88

Passage 23
Read the following information and answer the following questions.

An art gallery is preparing for an exhibition and requires a specific shade of paint for a mural. The gallery manager decides to mix three different shades of paint: Shade A, Shade B, and Shade C. The colours are mixed in different ratios to achieve the desired shade. The proportions and costs of the paints are as follows:

Shade A:
Cost per liter: Rs. 590
Color Intensity: 65%

Shade B:
Cost per liter: Rs. 815
Color Intensity: 75%

Shade C:
Cost per liter: Rs. 680
Color Intensity: 45%

Mixing Ratio 1: Shade A : Shade B : Shade C = 12:13 : 5
Mixing Ratio 2: Shade A : Shade B = 11 :1 4
Mixing Ratio 3: Shade B : Shade C = 5 : 12

Q89. What is the average cost per litre of the mixture for Mixing Ratio 1?

a. Rs. 502.50.
b. Rs. 702.50.
c. Rs. 460.12
d. Rs. 480.88

Q90. If the desired color intensity for Mixing Ratio 2 is 59%, what should be the mixing ratio of Shade A and Shade B?

a. Rs. 502.50.
b. Rs. 702.50.
c. Rs. 460.12
d. Rs. 480.88

Q91.For Mixing Ratio 3, if the total volume of the mixture is 1520 liters, what is the cost of Shade C used?

a. Rs. 2,29,600
b. Rs. 5,29,600
c. Rs. 3,29,600
d. Rs. 7,29,600

Q92. The gallery manager wants to achieve a colour intensity of 62 % in Mixing Ratio 1. If the total cost of the mixture is Rs. 415, what should be the volume of Shade A?

a. 76%
b. 86%
c. 56%
d. 66%

Passage 24
Read the following information and answer the following questions.

A bookstore, "ReadWell Books," is known for selling a wide range of books. The bookstore purchases books from publishers at wholesale prices and then sells them to customers at retail prices. The bookstore's expenses include the cost price of books, salaries, rent, and other overheads.

The following information is available for the year 2021:

Total revenue from book sales: Rs. 15,55,640
Total expenses: Rs. 12,80,710
Cost price of books: 65% of total expenses
Salaries: Rs. 2,50,410
Rent: Rs. 1,25,650
Other overheads: Rs. 55,450

Q93. What was the profit percentage for the bookstore in the year 2021?

a. 31.45%
b. 41.45%
c. 11.45%
d. 21.45%

Q94. If the bookstore aims for a profit margin of 30% on the cost price of books, what should be the selling price of books?

a. Rs. 15,82,199.95
b. Rs. 12,82,199.95
c. Rs. 11,82,199.95
d. Rs. 10,82,199.95

Q95.The bookstore decided to give an 11% discount on all book sales during a special promotion. What would be the new total revenue during the promotion?

a. Rs. 15,82,199.95
b. Rs. 12,82,199.95
c. Rs. 13,84,519.6
d. Rs. 10,82,199.95

Q96. To achieve a profit of Rs. 4,00,000 in 2021, what should be the total revenue from book sales?

a. Rs. 16,80,710.
b. Rs. 12,82,199.95
c. Rs. 13,84,519.6
d. Rs. 10,82,199.95

CAREERS360

Passage 25
Read the following information and answer the following questions.

A group of law students conducted a fundraising event called "Legal Aid Carnival" to support underprivileged individuals seeking legal assistance. The carnival had multiple game stalls and donation booths. The students collected data regarding the number of participants, the amount of money spent by each participant, and the donations received at each booth. The data for each category is as follows:

Game Stall 1 - Constitution Quiz:

- Number of participants: 180

- Average money spent per participant: Rs. 12520.50

Game Stall 2 - Legal Puzzles:

- Number of participants: 150

- Average money spent per participant: Rs. 19850

Game Stall 3 - Mock Trials:

- Number of participants: 120

- Average money spent per participant: Rs. 25200

Donation Booth 1 - Know Your Rights:

- Total donations received: Rs. 16650

- Percentage of the total carnival budget: 35%

Donation Booth 2 - Legal Aid Support:

- Total donations received: Rs. 19,600

- Percentage of the total carnival budget: 15%

Donation Booth 3 - Law for All:

- Total donations received: Rs. 12,520

- Percentage of the total carnival budget: 25%

Answer the following questions based on the given data:

Q97:What is the total amount of money spent by participants at the Mock Trials (Game Stall 3)?

a. Rs. 18,000
b. Rs. 20,000
c. Rs. 21,000
d. Rs. 30,24,000

Q98.If the carnival's total budget is Rs. 1,25,480, how much more donation is needed to meet the budget after considering the donations received from all three booths?

a. Rs. 76,710.
b. Rs. 20,000
c. Rs. 21,000
d. Rs. 30,24,000

Q99. If the average money spent per participant at the Legal Puzzles (Game Stall 2) is increased by 25% and the number of participants remains the same, what is the new total money earned from this stall?

a. Rs. 13,125
b. Rs. 15,120.20
c. Rs. 16,8755.20
d. Rs. 3,72,1875.

Q100. What is the ratio of the total money spent by participants at the Constitution Quiz (Game Stall 1) to the total money spent by participants at the Legal Puzzles (Game Stall 2)?

a. 3:4
b. 4:5
c. 5:6
d. 6:7

CAREERS360

Passage 26
Read the following information and answer the following questions.

A company conducted a survey to evaluate the performance of its employees. The company recorded the monthly salaries of five employees and the number of projects each employee completed in the last six months. Using this data, let's analyze the average salary and project completion rates.

Employee 1:

Monthly Salary: Rs45510

Projects Completed in 6 months: 18

Employee 2:

Monthly Salary: Rs35410

Projects Completed in 6 months: 26

Employee 3:

Monthly Salary: Rs.55120

Projects Completed in 6 months: 21

Employee 4:

Monthly Salary: Rs. 64520

Projects Completed in 6 months: 17

Employee 5:

Monthly Salary: Rs.71150

Projects Completed in 6 months: 13

Q101.What is the average monthly salary of all five employees?

a. Rs.4600
b. Rs.54,342
c. Rs.5000
d. Rs.5200

Q102. Which employee has the highest ratio of projects completed per month to monthly salary?

a. Employee 1
b. Employee 2
c. Employee 3
d. Employee 4

Q103. If the company wants to give a 26% salary increase to employees who completed more than 10 projects in 6 months, which of the employees would receive maximum monthly salary ?

a. Rs. 60,632
b. Rs. 61,332
c. Rs. 62,032
d. Rs. 89649

Q104. Employee 3 wants to increase their average monthly salary to Rs5500. How much should their salary be for the next 6 months to achieve this target?

a. Rs5200
b. Rs5400
c. Rs5600
d. Rs. 85,510.

Passage 27
Read the following information and answer the following questions.

A bookstore named "Lexicon Reads" decided to hold a month-long sale to promote reading among law students. The store offered discounts on various categories of books, and they also had a section of books related to legal studies. The store maintained records of the marked price, the discount percentage, and the number of books sold for each category. The data is as follows:

Legal Thrillers (Category A):

- Marked Price per book: Rs. 455.50

- Discount percentage: 21%

- Number of books sold: 128

Case Law Compendiums (Category B):

- Marked Price per book: Rs. 655

- Discount percentage: 15%

- Number of books sold: 96

Constitutional Commentaries (Category C):

- Marked Price per book: Rs. 785

- Discount percentage: 29%

- Number of books sold: 81

Bar Exam Prep (Category D):

- Marked Price per book: Rs. 1150

- Discount percentage: 41%

- Number of books sold: 117

Legal Fiction (Category E):

- Marked Price per book: Rs. 1325

- Discount percentage: 33%

- Number of books sold: 135

Q105. What is the total amount of discount given on the sales of Constitutional Commentaries (Category C) books?

a. Rs. 16,439.65
b. Rs. 4514.25
c. Rs. 18,439.65
d. Rs. 55010.52

Q106. What is the total revenue generated from the sales of Legal Fiction (Category E) books?

a. 158%
b. 160.19%.

c. 145%
d. 123%

Q107. Which of the following categories of books sold by "Lexicon Reads" during their month-long sale had the highest total revenue?

a. Legal Thrillers (Category A)
b. Case Law Compendiums (Category B)
c. Constitutional Commentaries (Category C)
d. Legal Fiction (Category E)

Q108. What was the total revenue generated by the bookstore from the sale of Category A and Category B books combined?

a. Rs. 1,00,000
b. Rs. 69,508.16
c. Rs. 89,508.16
d. Rs. 99,508.16

Passage 28
Read the following information and answer the following questions.

A company, "PACIFIC," specializes in selling electronic devices. The company has been tracking the sales performance of its products over the last two years. The following information is available:

Year 2020:

Total sales revenue: Rs. 12,55,510

Sales of smartphones: 66% of total sales revenue

Sales of laptops: 34% of total sales revenue

Year 2021:

Total sales revenue: Rs. 15,75,250

Sales of smartphones: 78% of total sales revenue

Sales of laptops: 22% of total sales revenue

Q109: Calculate the percentage increase in total sales revenue from 2020 to 2021.

a. 21.43%.
b. 23.43%.
c. 24.43%.
d. 25.46%.

Q110. If the company's profit margin remained the same in both years and the profit in 2020 was Rs. 2,50,610, what was the profit in 2021?

a. Rs. 3,10,419.9
b. Rs. 3,14,419.9
c. Rs. 1,14,419.
d. Rs. 2,14,419.9

Q111. What was the percentage increase in the sales revenue from smartphones from 2020 to 2021?

a. 20.15%
b. 25.15%
c. 30.10%
d. 48.27%

Q112: If the sales of smartphones decreased by 15% in 2021 compared to 2020, what was the sales revenue from smartphones in 2021?

a. Rs. 7,04,341.11
b. Rs. 8,04,341.11
c. Rs. 9,04,341.11
d. Rs. 11,04,341.11

Passage 29
Read the following information and answer the following questions.

In a local market, five different brands of smartphones were on sale during the festive season. The prices of these smartphones and the number of units sold for each brand were recorded. The data for each brand is as follows:

Brand A

- Price per smartphone: Rs. 185500

- Number of units sold: 175

Brand B

- Price per smartphone: Rs. 228600

- Number of units sold: 195

Brand C

- Price per smartphone: Rs. 425100

- Number of units sold: 275

Brand D

- Price per smartphone: Rs. 647500

- Number of units sold: 79

Brand E

- Price per smartphone: Rs. 983650

- Number of units sold: 56

Answer the following questions based on the given data:

Q113. What was the average of total revenue generated from the sale of all smartphones of Brand C and Brand E combined?

a. Rs. 85993400
b. Rs. 65993450
c. Rs. 80993450
d. Rs. 85993450

Q114. Which of the following statements is true regarding the total revenue generated by each brand of smartphone during the festive season?

a. Brand A generated the highest total revenue.
b. Brand B generated the lowest total revenue.
c. Brand C generated more total revenue than Brand D and Brand E combined.
d. Brand D generated more total revenue than Brand A and Brand B combined.

Q115:If the total revenue generated by the sale of smartphones by Brand A, Brand B, and Brand C is represented by the expression 185500x + 228600y + 425100z, where x, y, and z are the number of units sold by Brand A, Brand B, and Brand C respectively, what is the value of the expression when x = 175, y = 195, and z = 275?

a. Rs. 32437500
b. Rs. 44577000
c. Rs. 116902500
d. Rs. 193942000

Q116:Estimate the average revenue generated from all the brands

a. Rs. 32437500
b. Rs. 44577000
c. Rs. 60035780
d. Rs. 193942000

Passage 30
Read the following information and answer the following information

A retail store, "ValueMart," deals in selling various products. The store keeps track of its revenue and the profit margins for different products. The following information is available for a specific set of products:

Product X:

Cost Price (CP): Rs. 125850.50

Selling Price (SP): Rs. 155850.50

Discount Percentage: 28%

Product Y:

Marked Price (MP): Rs. 255620.20

Discount Percentage on MP: 32%

Selling Price (SP) after discount: ?

Product Z:

Cost Price (CP): Rs. 825015.50

Profit Percentage: 35%

Selling Price (SP): Rs. ?

Product W:

Cost Price (CP): Rs. 1852060.20

Profit Percentage: 45%

Selling Price (SP): Rs. ?

Q117. What is the profit percentage earned on the sale of Product X?

a. 28.84%
b. 25.84%
c. 23.84%
d. 21.84%

Q118. What is the selling price of Product Y after the discount on the marked price?

a. Rs. 163801.736.
b. Rs. 273801.736.
c. Rs. 113801.736.
d. Rs. 173821.736.

Q119. What is the percentage difference between the selling price of Product Y and Z?

a. Rs. 163801.736.
b. Rs. 273801.736.
c. 74.39%
d. 84.38%

Q120. Which of the following is the correct Selling Price (SP) of Product W?

a. Rs. 2685487.29
b. Rs. 2685487.30
c. Rs. 2685487.31
d. Rs. 2685487.29

CAREERS360

ANSWER KEY

1	2	3	4	5	6	7	8	9	10
b	a	b	c	a	c	c	c	c	b
11	12	13	14	15	16	17	18	19	20
c	d	c	b	c	d	a	b	b	b
21	22	23	24	25	26	27	28	29	30
a	a	b	a	c	d	d	b	c	d
31	32	33	34	35	36	37	38	39	40
d	b	c	d	c	d	c	c	c	a
41	42	43	44	45	46	47	48	49	50
d	b	d	d	b	b	c	b	a	b
51	52	53	54	55	56	57	58	59	60
d	b	c	d	c	d	d	b	c	c
61	62	63	64	65	66	67	68	69	70
b	d	b	a	c	d	d	c	d	d
71	72	73	74	75	76	77	78	79	80
d	c	c	b	c	b	a	c	a	c
81	82	83	84	85	86	87	88	89	90
b	a	b	c	b	d	c	d	b	b
91	92	93	94	95	96	97	98	99	100
d	d	d	d	c	a	d	a	d	a
101	102	103	104	105	106	107	108	109	110
b	b	d	d	c	b	d	d	d	b
111	112	113	114	115	116	117	118	119	120
d	a	d	c	d	c	c	d	d	d

CAREERS360

SOLUTIONS

1 - b

To find the percentage increment in total monthly income for each month, we can use the formula:

Percentage Increment = [(New Value - Old Value) / Old Value] × 100

Now, let's calculate the percentage increment in total monthly income for each month compared to the previous month:

For Month 1:

Percentage Increment = [(5500 - 6500) / 6500] × 100

Percentage Increment = [-1000 / 6500] × 100

Percentage Increment = -15.38%

For Month 2:

Percentage Increment = [(8500 - 5500) / 5500] × 100

Percentage Increment = [3000 / 5500] × 100

Percentage Increment = 54.55%

For Month 3:

Percentage Increment = [(7500 - 8500) / 8500] × 100

Percentage Increment = [-1000 / 8500] × 100

Percentage Increment = -11.76%

For Month 4:

Percentage Increment = [(5300 - 7500) / 7500] × 100

Percentage Increment = [-2200 / 7500] × 100

Percentage Increment = -29.33%

For Month 5:

Percentage Increment = [(850 - 5300) / 5300] × 100

Percentage Increment = [-4450 / 5300] × 100

Percentage Increment = -83.96%

From the calculations, we can see that Month 2 had the highest percentage increment in total monthly income compared to the previous month.

Therefore, the correct answer is: B) Month 2

2 - a

To find the percentage change in total expenditure from Month 1 to Month 5, we need to calculate the total expenditure for each month and then find the percentage change.

Total Expenditure = Food Expenditure + Utilities Expenditure + Entertainment Expenditure

Let's calculate the total expenditure for each month:

Month 1:

Total Expenditure Month 1 = 818 + 318 + 275 = 1411

Month 2:

Total Expenditure Month 2 = 920 + 375 + 155 = 1450

Month 3:

Total Expenditure Month 3 = 880 + 125 + 235 = 1240

Month 4:

Total Expenditure Month 4 = 750 + 220 + 180 = 1150

Month 5:

Total Expenditure Month 5 = 850 + 320 + 2500 = 3670

Now, let's find the percentage change in total expenditure from Month 1 to Month 5:

Percentage Change = [(New Value - Old Value) / Old Value] × 100

Percentage Change = [(3670 - 1411) / 1411] × 100

Percentage Change = [2259 / 1411] × 100

Percentage Change ≈ 160.09%

The percentage change in total expenditure from Month 1 to Month 5 is approximately 160.09%.

Therefore, the percentage change in total expenditure is approximately 160.09%.

3 - b

To find the month in which the household spent the highest percentage of their income on entertainment, we need to calculate the percentage of income spent on entertainment for each month and then compare the values.

Percentage of Income Spent on Entertainment = (Entertainment Expenditure / Total Monthly Income) × 100

Let's calculate the percentage of income spent on entertainment for each month:

Month 1:

Percentage of Income Spent on Entertainment Month 1 = (275 / 6500) × 100 ≈ 4.23%

Month 2:

Percentage of Income Spent on Entertainment Month 2 = (155 / 5500) × 100 ≈ 2.82%

Month 3:

Percentage of Income Spent on Entertainment Month 3 = (235 / 8500) × 100 ≈ 2.76%

Month 4:

Percentage of Income Spent on Entertainment Month 4 = (180 / 7500) × 100 ≈ 2.40%

Month 5:

Percentage of Income Spent on Entertainment Month 5 = (2500 / 5300) × 100 ≈ 47.17%

From the calculations, we can see that the household spent the highest percentage of their income on entertainment in Month 5, which is approximately 47.17%.

Therefore, the household spent the highest percentage of their income on entertainment in Month 5.

4 - c

To calculate the average percentage of income spent on utilities over the five months, we need to find the percentage of income spent on utilities for each month and then calculate the average.

Percentage of Income Spent on Utilities = (Utilities Expenditure / Total Monthly Income) × 100

Let's calculate the percentage of income spent on utilities for each month:

Month 1:

Percentage of Income Spent on Utilities Month 1 = (318 / 6500) × 100 ≈ 4.89%

Month 2:

Percentage of Income Spent on Utilities Month 2 = (375 / 5500) × 100 ≈ 6.82%

Month 3:

Percentage of Income Spent on Utilities Month 3 = (125 / 8500) × 100 ≈ 1.47%

Month 4:

Percentage of Income Spent on Utilities Month 4 = (220 / 7500) × 100 ≈ 2.93%

Month 5:vw

Percentage of Income Spent on Utilities Month 5 = (320 / 5300) × 100 ≈ 6.04%

Now, let's calculate the average percentage of income spent on utilities over the five months:

Average Percentage of Income Spent on Utilities = (Percentage of Income Spent on Utilities Month 1 + Percentage of Income Spent on Utilities Month 2 + Percentage of Income Spent on Utilities Month 3 + Percentage of Income Spent on Utilities Month 4 + Percentage of Income Spent on Utilities Month 5) / 5

Average Percentage of Income Spent on Utilities = (4.89 + 6.82 + 1.47 + 2.93 + 6.04) / 5

Average Percentage of Income Spent on Utilities ≈ 4.43%

The average percentage of income spent on utilities over the five months is approximately 4.43%.

Therefore, the average percentage of income spent on utilities is approximately 4.43%.

5 - a

Based on the given data interpretation, the average age of The Fantastic Five was 24 years. When they were joined by a new friend, whose age was 28 years 8 months, the average age of the group changed.

Let's calculate the new average age of the group after the new friend joined. The total age of The Fantastic Five is 24 × 5 = 120 years.

The new friend's age is 28 + (8/12) = 28.67 years.

Therefore, the total age of the group after the new friend joined is 120 + 28.67 = 148.67 years.

Since there are now six friends in the group, the new average age of the group is 148.67 / 6 = 24.78 years.

Therefore, after the new friend joined, the average age of the group increased to **24.78** years.

6 - c

The average weight of a class of 30 students is 55 kg. If the teacher's weight is included, which is 75 kg, what will be the new average weight of the class?

To find the new average weight, we need to consider the weights of all the students, including the teacher, and then divide the total sum by the number of students and the teacher.

Average weight of 30 students = 55 kg

Sum of weights of 30 students = 30 × 55 = 1650 kgs

Now, the teacher, whose weight is 75 kg, is included. So, the total number of people becomes 31 (30 students + 1 teacher).

Sum of weights of 31 people = 1650 + 75 = 1725 kg

New average weight of the class = Total sum of weights of all people / Number of people

New average weight = 1725 / 31 = 55.64 kg.

7 - c

In a basketball match, a player scored the following points in 5 consecutive games: 20, 15, 30, 25, and 35 points. What is the average number of points scored per game?

In the last 5 games, they scored 20, 15, 30, 25, and 35 points, respectively. The total points scored in these 5 games is 20 + 15 + 30 + 25 + 35 = 125 points.

The average points scored in these 5 games is 125 / 5 = 25 points.

Now, their points changed as follows:

For the first game, the points increased by 15%, which means the new points for this game is = 15/100 × 20 + 20 = 23

For the second game, the points decreased by 25%, which means the new points for this game is = 15 - 25/100 × 15 = 15 - 3.75 = 11.25

For the third game, the points remained constant, which means the new points for this game is still 30 points.

For the fourth game, the points increased by 20%, which means the new points for this game is = 20/100 × 25 + 25 = 30

For the fifth game, the points remained constant, which means the new points for this game is still 35 points.

The total new points scored in these 5 games is 23 + 11.25 + 30 + 30 + 35 = 129.25 points.

The new average points scored in these 5 games is 129.25 / 5 = 25.85 points.

The percentage change in overall average points can be calculated as follows:

Percentage change = (25.85 - 25)/25 × 100 = 3.4%

So, their overall average points changed by 3.4%

8 - c

The average monthly salary of 10 employees in a company is Rs 4,000. If the manager's salary, Rs 8,000, is also included, what will be the new average monthly salary of all the employees?

To find the new average monthly salary, we need to consider the salaries of all the employees, including the manager, and then divide the total sum by the number of employees.

Average monthly salary of 10 employees = Rs 4,000

Total monthly salary of 10 employees = 4000 × 10 = Rs 40,000

Now, the manager, whose salary is Rs 8,000, is included. So, the total number of employees becomes 11 (10 employees + 1 manager).

Total monthly salary of 11 employees = Rs 40,000 + Rs 8,000 = Rs 48,000

New average monthly salary of all the employees = Total monthly salary / Number of employees

New average monthly salary = Rs48,000 / 11 ≈ Rs4,363.64

9 - c

Based on the given data interpretation, Artist A created a new shade by mixing Red and Blue paint in the ratio 13:15, which weighs 1400 liters. Artist B created another shade by mixing Blue and Yellow paint in the ratio 16:18, which weighs 1530 liters. Artist C created a third shade by combining Red and Yellow paint in the ratio 12:20, which weighs 1920 liters. To create the final masterpiece, all three artists poured their shades into a single container.

Let’s calculate the amount of each color of paint in the final mixture:

The amount of Red paint in the final mixture is 13/28 ×1400 + 12/32 × 1920 = 1370litres.
The amount of Blue paint in the final mixture is 15/28 × 1400 + 16/34 × 1530 = 1470liters

The amount of Yellow paint in the final mixture is 18/34 × 1530 + 20/32 × 1920 = 2010 liters

Therefore, the ratio of Red, Blue, and Yellow in the final mixture is 1370 : 1470: 2010, which can be simplified to 137: 147: 201.

10 - b

Let's calculate the percentage of Red paint in the final mixture.

Step 1: Calculate the amount of Red paint in each artist's shade.

1. Artist A's shade:

- Red: (13 / (13 + 15)) * 1400 liters = 650liters

2. Artist B's shade:

- No Red paint used.

3. Artist C's shade:

- Red: (12 / (12 + 20)) × 1920 liters = 720 liters

Step 2: Calculate the total amount of Red paint in the final mixture by adding up the amounts from each artist.

- Total Red: 650liters (Artist A) + 720 liters (Artist C) = 1370liters

Step 3: Calculate the percentage of Red paint in the final mixture.

- Percentage of Red: (Total Red / Total volume of the final mixture) ×100

- Percentage of Red: (1370 liters / (1400 liters + 1530 liters + 1920 liters)) × 100 ≈ 28.24%

Therefore, the correct answer is (B) 28.24%.

11 - c

Let's calculate the percentage of Yellow paint in the final mixture.

Step 1: Calculate the amount of Yellow paint in each artist's shade.

1. Artist A's shade:

   - No Yellow paint used.

2. Artist B's shade:

   - Yellow: (18 / (16 + 18)) ×1530 liters = 810 liters

3. Artist C's shade:

   - Yellow: (20 / (12 + 20)) ×1920 liters = 1200liters

Step 2: Calculate the total amount of Yellow paint in the final mixture by adding up the amounts from each artist.

   - Total Yellow: 810 liters (Artist B) + 1200 liters (Artist C) = 2010 liters

Step 3: Calculate the percentage of Yellow paint in the final mixture.

   - Percentage of Yellow: (Total Yellow / Total volume of the final mixture) ×100

   - Percentage of Yellow: (2010 liters / (1400 liters + 1530 liters + 1920 liters)) ×100 ≈ 41.44%

12 - d

Artist A mixes Red and Blue paint in the ratio 13:15 to create a new shade, which weighs 1400 liters.

So, the amount of Red paint used by Artist A is (13/28)×1400 = 650 liters and the amount of Blue paint used by Artist A is (15/28)×1400 = 750 liters.

Artist B mixes Blue and Yellow paint in the ratio 16:18 to create another shade, which weighs 1530 liters.

So, the amount of Blue paint used by Artist B is (16/34)×1530 = 720 liters.

Artist C combines Red and Yellow paint in the ratio 12:20 to create a third shade, which weighs 1920 liters.

So, the amount of Red paint used by Artist C is (12/32)×1920 = 720 liters.

13 - c

To calculate the percentage profit earned on the sale of the shirt in Case 1, we need to find the profit and then determine the percentage profit.

Step 1: Calculate the Profit

Profit = Selling Price - Cost Price

Profit = Rs 611 - Rs 435

Profit = Rs 176

Step 2: Calculate the Percentage Profit

Percentage Profit ≈ 40.46%

So, Mr. Smith earned a profit of approximately 40.46% on the sale of the shirt.

Now, let's calculate how much the selling price should be increased to increase the percentage profit earned on the sale of the shirt by 25%.

Step 3: Calculate the Desired Percentage Profit

Desired Percentage Profit = 40.46% + 25%

Desired Percentage Profit = 40.46% + 25% = 65.46%

Step 4: Calculate the New Selling Price

Let's assume the new selling price is Rs x.

New Profit = New Selling Price - Cost Price

New Profit = x - Rs435

Now, we need to calculate the New Selling Price when the profit is 65.46% of the Cost Price.

To find the value of x, let's proceed with the calculations:

65.46 / 100 = (x - Rs435) / Rs435

0.6546 = (x - 435) / 435

x ≈ 435 + 284.453

$x \approx$ Rs719.45

So, to increase the percentage profit earned on the sale of the shirt by 25%, the selling price should be increased to approximately Rs. 719.45.

14 - b

Let us calculate the selling price of the product and then find the percentage by which the selling price will be less than the marked price.

Given information:

Cost price of each unit = Rs. 1515

Profit percentage = 55%

Discount percentage = 15%

Step 1: Calculate the profit amount

Profit Amount = Profit Percentage × Cost Price

Profit Amount = 55% × Rs. 1515

Profit Amount = 0.55 × Rs. 1515

Profit Amount = Rs. 833.25

Step 2: Calculate the selling price

Selling Price = Cost Price + Profit Amount − Discount Amount

Selling Price = Rs. 1515+ Rs. 833.25− Discount Amount

Step 3: Calculate the discount amount

Discount Amount = Discount Percentage × Selling Price

Discount Amount = 15% × Selling Price

Discount Amount = 0.15 × Selling Price

Step 4: Substitute the values in Step 2 and Step 3

Selling Price = Rs. 1515+ Rs. 833.25− 0.15 × Selling Price

Selling Price + 0.15 × Selling Price = Rs. 2348.25

1.15 × Selling Price = Rs. 2348.25

Step 5: Solve for Selling Price

Selling Price = Rs. 2348.25 / 1.05

Selling Price = Rs. 2236.42 (rounded to two decimal places)

Now, let's find the percentage by which the selling price will be less than the marked price.

Step 6: Calculate the difference between the marked price and the selling price

Difference = Marked Price − Selling Price

Since the profit is added to the cost price to get the selling price, the marked price is the original cost price plus the profit amount.

Marked Price = Cost Price + Profit Amount

Marked Price = Rs. 1515+ Rs. 833.25

Marked Price = Rs. 2348.25

Difference = Rs. 2348.25 − Rs. 2236.42

Difference = Rs. 111.83

Step 7: Calculate the percentage difference

Percentage Difference = $(\frac{Difference}{Marked\ Price}) \times 100$

Percentage Difference = $(\frac{Rs.\ 111.83}{Rs.\ 2348.25} \times 100)$

Percentage Difference = 4.76%

The selling price will be approximately 4.76% less than the marked price of the product.

15 - c

Let's calculate the selling price of the laptop for Alex.

Step 1: Calculate the Loss Incurred by John

Loss = 8.33% of the Cost Price (Rs19200)

Loss = (8.33/100) ×Rs 19200 = Rs 1599.36

Loss ≈ Rs1600

Step 2: Calculate the Selling Price of the Laptop for John

Selling Price = Cost Price - Loss

Selling Price = Rs 19200 - Rs 1600

Selling Price = Rs 17600

Step 3: Calculate the Profit Desired by Alex

Profit = 10% of the Cost Price (the selling price for John)

Profit = $(\frac{10}{100})$ × Rs17600

Profit ≈ Rs1760

Step 4: Calculate the Selling Price of the Laptop for Alex

Selling Price = Cost Price + Profit

Selling Price = Rs 17600 + Rs 1760

Selling Price = Rs 19360

So, Alex paid Rs19360 for the laptop.

16 - d

The percentage profit earned by Mr. Smith, considering the loss of 10 pens, can be calculated as follows:

Cost price of 65pens = Rs 125

Cost price of 1 pen = Rs 125/ 65= Rs 1.92

Selling price of 1 pen = Rs 3

Profit on the sale of 1 pen = Selling price - Cost price = Rs 3 – Rs 1.92= Rs 1.08

Number of pens sold = 65– 10 (damaged) = 55

Total profit on the sale of 55 pens = Profit on the sale of 1 pen × Number of pens sold

= Rs 1.08 × 55= Rs 59.4.

Percentage profit = $(\frac{Total\ Profit}{Total\ cost\ price}) \times 100\%$

= $(\frac{Rs\ 59.4}{Rs\ 125}) \times 100\% = 47.52\%$

So, considering the loss of 10 pens, Mr. Smith earned a percentage profit of $47.52\%\%$

17 - a

smartphones are as follows:

1. Smartphone A: Rs 850
2. Smartphone B: Rs 960
3. Smartphone C: Rs 780
4. Smartphone D: Rs 1020
5. Smartphone E: Rs 890

If MobileMania decides to offer a 15% discount on the original price of each smartphone, then the new prices of the smartphones after applying this discount would be:

1. Smartphone A: Rs 850 - (15/100) × Rs 850 = Rs 722.5
2. Smartphone B: Rs 960 - (15/100) × Rs 960 = Rs 816
3. Smartphone C: Rs 780 - (15/100) × Rs 780 = Rs 663
4. Smartphone D: Rs 1020 - (15/100) × Rs 1020 = Rs 867
5. Smartphone E: Rs 890 - (15/100) × Rs 890 = Rs 756.5

Now, if MobileMania gives an additional 5% cashback on the discounted price of each smartphone, then the final prices of the smartphones after applying both discounts would be:

1. Smartphone A: Rs 722.5 - (5/100) × Rs 722.5 = Rs 686.375
2. Smartphone B: Rs 816 - (5/100) × Rs 816 = Rs 775.2
3. Smartphone C: Rs 663 - (5/100) × Rs 663 = Rs 629.85
4. Smartphone D: Rs 867 - (5/100) × Rs 867 = Rs 823.65
5. Smartphone E: Rs 756.5 - (5/100) × Rs 756.5 = Rs 718.675

The new average price of the smartphones after applying both discounts is (Rs686.375 +Rs775.2 +Rs629.85 +Rs823.65 +Rs718.675)/5 = Rs726.75.

Therefore, after applying a discount of 15% on the original price of each smartphone and an additional 5% cashback on the discounted price, the new average price of the smartphones is Rs726.75.

18 - b

Percentage Discount on Smartphone E = ((Original Price of Smartphone E - Discounted Price of Smartphone E) / Original Price of Smartphone E) × 100

Percentage Discount on Smartphone E = ((Rs 1000 - Rs 801) / Rs 1000) × 100

Percentage Discount on Smartphone E = (Rs 199 / Rs 1000) × 100

Percentage Discount on Smartphone E = 0.199 × 100

Percentage Discount on Smartphone E = 19.9%

Therefore, the correct answer is 19.9%

19 - b

Total Review Scores for the existing smartphones = Review Score of Smartphone A + Review Score of Smartphone C + Review Score of Smartphone E

Total Review Scores for the existing smartphones = 8.5 + 7.2 + 9.0 = 24.7

Total Review Scores after including the review for Smartphone D = Total Review Scores for the existing smartphones + Review Score of Smartphone D

Total Review Scores after including the review for Smartphone D = 24.7 + 8.8 = 33.5

New Average Review Score after including the review for Smartphone D = Total Review Scores after including the review for Smartphone D / Total number of smartphones

New Average Review Score after including the review for Smartphone D = 33.5 / 4

New Average Review Score after including the review for Smartphone D = 8.375

20 - b

Let's first calculate the average prices of smartphones from Brand X and Brand Y based on the given data:

Average Price of smartphones from Brand X = (Price of Smartphone X1 + Price of Smartphone X2 + Price of Smartphone X3 + Price of Smartphone X4) / Total number of smartphones from Brand X

Average Price of smartphones from Brand X = (Rs 720 + Rs 860 + Rs 950 + Rs 800) / 4

Average Price of smartphones from Brand X = Rs 3330 / 4

Average Price of smartphones from Brand X = Rs 832.50

Average Price of smartphones from Brand Y = (Price of Smartphone Y1 + Price of Smartphone Y2 + Price of Smartphone Y3) / Total number of smartphones from Brand Y

Average Price of smartphones from Brand Y = (Rs 780 + Rs 890 + Rs 920) / 3

Average Price of smartphones from Brand Y = Rs 2590 / 3

Average Price of smartphones from Brand Y = Rs 863.33

Now, let's set up the equation based on the information provided:

Average Price of smartphones from Brand X = 0.9 × Average Price of smartphones from Brand

Substitute the calculated values:Rs 832.50 = 0.9 × Rs 863.33= Rs 776.997

Now, solve for the average price of smartphones from Brand Z:

Average Price of smartphones from Brand Z = (Price of Smartphone Z1 + Price of Smartphone Z2 + Price of Smartphone Z3 + Price of Smartphone Z4 + Price of Smartphone Z5) / Total number of smartphones from Brand Z

We need to find the sum of prices of smartphones from Brand Z. Let's add them:

Sum of prices of smartphones from Brand Z = Rs 920 + Rs 800 + Rs 940 + Rs 860 + Rs 890

Sum of prices of smartphones from Brand Z = Rs 4410

Average Price of smartphones from Brand Z = Rs 4410 / 5

Average Price of smartphones from Brand Z = Rs 882

Therefore, the average price of smartphones from Brand Z is Rs 882.

21 - a

To find the total sales of the company in 2022, we need to calculate the average sales of Region A and Region B in 2021 and then add that average to the sales in Region A and Region B in 2021.

Step 1: Calculate the Average Sales of Region A and Region B in 2021

Average Sales = (Sales in Region A in 2021 + Sales in Region B in 2021) / 2

Average Sales = (₹6,00,000 + ₹9,00,000) / 2

Average Sales = ₹15,00,000 / 2

Average Sales = ₹7,50,000

Step 2: Calculate the Total Sales of the Company in 2022

Total Sales in 2022 = Sales in Region A in 2021 + Sales in Region B in 2021 + Average Sales of Region A and Region B in 2021

Total Sales in 2022 = ₹6,00,000 + ₹9,00,000 + ₹7,50,000

Total Sales in 2022 = ₹22,50,000

Therefore, the total sales of the company in 2022, assuming the sales in Region A and Region B remain the same as in 2021 and the sales in Region C equal the average sales of Region A and Region B in 2021, would be ₹22,50,000.

22 - a

To calculate the average percentage increase in sales for both regions from 2019 to 2021, we first need to find the percentage increase in sales for each region from 2019 to 2020 and from 2020 to 2021. Then, we can calculate the average percentage increase by taking the average of the two percentage increases.

Sales Data for Region A:

- Sales in 2019 = ₹4,00,000

- Sales in 2020 = ₹5,00,000

- Sales in 2021 = ₹6,00,000

Percentage Increase in Sales for Region A:

1. Percentage Increase from 2019 to 2020:

Increase in Sales = Sales in 2020 - Sales in 2019 = ₹5,00,000 - ₹4,00,000 = ₹1,00,000

Percentage Increase = (Increase in Sales / Sales in 2019) × 100 = (₹1,00,000 / ₹4,00,000) × 100 = 25%

2. Percentage Increase from 2020 to 2021:

Increase in Sales = Sales in 2021 - Sales in 2020 = ₹6,00,000 - ₹5,00,000 = ₹1,00,000

Percentage Increase = (Increase in Sales / Sales in 2020) × 100 = (₹1,00,000 / ₹5,00,000) × 100 = 20%

Sales Data for Region B:

- Sales in 2019 = ₹6,00,000

- Sales in 2020 = ₹7,00,000

- Sales in 2021 = ₹9,00,000

Percentage Increase in Sales for Region B:

1. Percentage Increase from 2019 to 2020:

Increase in Sales = Sales in 2020 - Sales in 2019 = ₹7,00,000 - ₹6,00,000 = ₹1,00,000

Percentage Increase = (Increase in Sales / Sales in 2019) × 100 = (₹1,00,000 / ₹6,00,000) × 100 = 16.67% (approx)

2. Percentage Increase from 2020 to 2021:

Increase in Sales = Sales in 2021 - Sales in 2020 = ₹9,00,000 - ₹7,00,000 = ₹2,00,000

Percentage Increase = (Increase in Sales / Sales in 2020) × 100 = (₹2,00,000 / ₹7,00,000) × 100 ≈ 28.57% (approx)

Average Percentage Increase in Sales for both regions:

Average Percentage Increase = (Percentage Increase in Sales for Region A + Percentage Increase in Sales for Region B) / 2

Average Percentage Increase = (25% + 20% + 16.67% + 28.57%) / 4

Average Percentage Increase ≈ 22.56%

The average percentage increase in sales for both regions from 2019 to 2021 is approximately 22.56%.

23 - b

If the sales in Region A in 2022 increased by 20% compared to 2021, and the sales in Region B remained the same as 2021, what is the total sales in 2022:

To find the total sales in 2022, we calculate the sales in Region A and Region B separately and then add them.

Total sales in Region A in 2022 = 6,00,000 + (20/100) × 6,00,000 = ₹7,20,000

Total sales in Region B in 2022 = 9,00,000 (as it remained the same as 2021)

Total sales in 2022 = Total sales in Region A in 2022 + Total sales in Region B in 2022

= ₹7,20,000 + ₹9,00,000 = ₹16,20,000

Answer: The total sales in 2022 is ₹16,20,000

24 - a

To find the total sales in Region B for 2021, assuming the percentage increase in total sales is the same as the percentage increase in sales for Region A, we need to calculate the percentage increase in sales for Region A and then use that percentage to find the sales amount for Region B in 2021.

Given data:

- Sales in Region A for 2019 = ₹4,00,000

- Sales in Region A for 2020 = ₹5,00,000

- Sales in Region A for 2021 = ₹6,00,000

Percentage Increase in Sales for Region A:

Percentage Increase from 2019 to 2020:

Increase in Sales = Sales in 2020 - Sales in 2019 = ₹5,00,000 - ₹4,00,000 = ₹1,00,000

Percentage Increase = (Increase in Sales / Sales in 2019) × 100 = (₹1,00,000 / ₹4,00,000) × 100 = 25%

Percentage Increase from 2020 to 2021:

Increase in Sales = Sales in 2021 - Sales in 2020 = ₹6,00,000 - ₹5,00,000 = ₹1,00,000

Percentage Increase = (Increase in Sales / Sales in 2020) × 100 = (₹1,00,000 / ₹5,00,000) × 100 = 20%

Now, since the percentage increase in total sales is the same as the percentage increase in sales for Region A, we can use the percentage increase of 20% to find the sales for Region B in 2021.

Sales in Region B for 2020:

Sales in 2020 = ₹7,00,000

Sales in Region B for 2021:

Sales in 2021 = Sales in 2020 + (Percentage Increase × Sales in 2020)

Sales in 2021 = ₹7,00,000 + (0.20 × ₹7,00,000) = ₹7,00,000 + ₹1,40,000 = ₹8,40,000

The total sales in Region B for 2021, assuming the percentage increase in total sales is the same as the percentage increase in sales for Region A, is ₹8,40,000.

25 - c

To find the total revenue generated from online sales for GlobeGrowth in the financial year 2022-2023, we need to calculate the portion of the total revenue that came from online sales.

Given the total revenue for the year is Rs. 1,28,55,750.

From the given information, we know that:

- 45% came from domestic sales.

- 51% came from international sales.

- 2.5% was spent on advertising and marketing.

Let's calculate the portion of the total revenue that came from online sales:

Total revenue from domestic and international sales = 45% + 51% = 96%

Remaining percentage for online sales = 100% - 96% = 4%

Now, we can find the total revenue from online sales:

Total revenue from online sales = 4% of total revenue

Total revenue from online sales = (4/100) ×Rs. 1,28,55,750

Total revenue from online sales = Rs. 5,14,230

So, the total revenue generated from online sales for GlobeGrowth in the financial year 2022-2023 was Rs. 5,14,230.

26 - d

To find the net profit percentage for the company, we need to calculate the total expenses and then subtract them from the total revenue.

Given:

Total revenue for the financial year 2022-2023 = Rs. 1,28,55,750

Total expenses include:

1. Cost of production = Rs. 85,54,650

2. Advertising and marketing expenses = Rs. 5,25,450

Now, let's calculate the total expenses:

Total expenses = Cost of production + Advertising and marketing expenses

Total expenses = Rs. 85,54,650 + Rs. 5,25,450

Total expenses = Rs. 90,80,100

Now, let's calculate the net profit:

Net profit = Total revenue - Total expenses

Net profit = Rs. 1,28,55,750 - Rs. 90,80,100

Net profit = Rs. 37,75,650

Finally, let's calculate the net profit percentage:

Net profit percentage = (Net profit / Total revenue) $\times 100$

Net profit percentage = (Rs. 37,75,650 / Rs. 1,28,55,750) $\times 100$

Net profit percentage $\approx$ 29.39%

So, the net profit percentage for the company after deducting all expenses from the total revenue is approximately 29.39%.

27 - d

To calculate the target revenue for the company to achieve a net profit of 20%, we need to consider the increased advertising and marketing budget for the next financial year.

Given:

Net profit percentage target = 20%

Current total revenue (financial year 2022-2023) = Rs. 1,28,55,750

Current advertising and marketing expenses = Rs. 5,25,450

New advertising and marketing budget (next financial year) = Rs. 7,50,000

Let's calculate the target net profit amount based on the current total revenue and the net profit percentage target:

Target net profit amount = (Net profit percentage target / 100) ×Current total revenue

Target net profit amount = (20 / 100) ×Rs. 1,28,55,750

Target net profit amount = Rs. 25,71,150

Now, let's calculate the total expenses (cost of production + advertising and marketing) for the next financial year:

Total expenses (next financial year) = Cost of production (next financial year) + New advertising and marketing budget

Total expenses (next financial year) = Rs. 85,54,650 + Rs. 7,50,000

Total expenses (next financial year) = Rs. 93,04,650

Now, let's calculate the target revenue for the company to achieve the desired net profit

Target revenue = Target net profit amount + Total expenses (next financial year

Target revenue = Rs. 25,71,150 + Rs. 93,04,650

Target revenue = Rs. 1,18,75,800

So, the target revenue for the company to achieve a net profit of 20% with the increased advertising and marketing budget of Rs. 7,50,000 for the next financial year is Rs. 1,18,75,800.

28 - b

To find the percentage increase in domestic sales to achieve the target of 60% of total revenue, we need to calculate the current and target amounts of domestic sales and then find the percentage increase.

Given:

Total revenue for the financial year 2022-2023 = Rs. 1,28,55,750

Current domestic sales percentage = 45%

Current international sales percentage = 51%

Current online sales percentage = 100% - (45% + 51%) = 4%

Let's calculate the current amount of domestic sales:

Current domestic sales = Current domestic sales percentage ×Total revenue

Current domestic sales = 0.45 ×Rs. 1,28,55,750

Current domestic sales = Rs. 57,85,087.50

Now, the company aims to increase domestic sales to 60% of the total revenue. Let's calculate the target amount of domestic sales

Target domestic sales = 0.60 ×Total revenue

Target domestic sales = 0.60 ×Rs. 1,28,55,750

Target domestic sales = Rs. 77,13,450

Now, let's calculate the percentage increase in domestic sales:

Percentage increase in domestic sales = ((Target domestic sales - Current domestic sales) / Current domestic sales) ×100

Percentage increase in domestic sales = ((Rs. 77,13,450 - Rs. 57,85,087.50) / Rs. 57,85,087.50) ×100

Percentage increase in domestic sales ≈ 33.38%

So, the company needs to achieve a percentage increase of approximately 33.38% in domestic sales to reach the target of 60% of the total revenue.

29 - c

Let's denote the salary of the employee at the beginning of Year 2 as "S."

In Year 1, the employee received a 12% increment. So, the salary at the beginning of Year 2 can be calculated as follows:

Salary at the beginning of Year 2 = Salary at the beginning of Year 1 + Increment in Year 1

S = Rs. 75,550 + 12% of Rs. 75,550

S = Rs. 75,550 + 0.12 × Rs. 75,550

S = Rs. 75,550 + Rs. 9,066

S = Rs. 84,616

So, the salary of the employee at the beginning of Year 2 was Rs. 84,616.

30 - d

Let's denote the average salary of employees at the beginning of Year 2 as "S2" and the average salary of employees at the beginning of Year 3 as "S3."

Given that the average salary of employees at the beginning of Year 3 increased by 15% compared to the previous year (Year 2), we can set up the following equation:

S3 = S2 + 15% of S2

Now, let's find the average salary of employees at the beginning of Year 2:

In Year 1, all employees received a 12% increment. So, the average salary at the beginning of Year 2 can be calculated as follows:

Average salary at the beginning of Year 2 = Average salary at the beginning of Year 1 + Increment in Year 1

S2 = Rs. 75,550 + 12% of Rs. 75,550

S2 = Rs. 75,550 + 0.12 × Rs. 75,550

S2 = Rs. 75,550 + Rs. 9,066

S2 = Rs. 84,616

Now, let's calculate the average salary at the beginning of Year 3:

S3 = S2 + 15% of S2

S3 = Rs. 84,616 + 15% of Rs. 84,616

S3 = Rs. 84,616 + 0.15 × Rs. 84,616

S3 = Rs. 84,616 + Rs. 12,692.40

S3 = Rs. 97,308.40

So, the average salary of employees at the beginning of Year 3 was Rs. 97,308.40.

31 - d

Let's denote the salary of a top performer at the beginning of Year 3 as "T," and the salary of an employee with satisfactory performance at the beginning of Year 3 as "S."

Given that 30% of the employees were top performers, 40% had satisfactory performance, and the rest needed improvement, we can use this information to find the salaries of top performers and employees with satisfactory performance.

1. Salary increment for top performers in Year 3: 22%

2. Salary increment for employees with satisfactory performance in Year 3: 9%

Now, let's calculate the salary of a top performer at the beginning of Year 3:

Salary of a top performer (T) = Salary of an employee with satisfactory performance (S) + Increment for top performers

T = Rs. 60,000 + 22% of Rs. 60,000

T = Rs. 60,000 + 0.22 × Rs. 60,000

T = Rs. 60,000 + Rs. 13,200

T = Rs. 73,200

So, the salary of a top performer at the beginning of Year 3 was Rs. 73,200.

32 - b

To calculate the average salary at the beginning of Year 4, we need to apply the salary increments for Year 1, Year 2, and Year 3 to the initial average salary of Rs. 75,550 per month. We'll assume the same distribution of performance categories as in Year 3.

Let's calculate step by step:

1. Average Salary at the beginning of Year 1: Rs. 75,550

2. Year 1 Increment: 12% for all employees

Year 1 Increment Amount = 12% of Rs. 75,550 = 0.12 × Rs. 75,550 = Rs. 9,066

Average Salary at the beginning of Year 2 = Rs. 75,550 + Rs. 9,066 = Rs. 84,616

3. Year 2 Increment:

- 11% increment for top performers

- 5% increment for employees with satisfactory performance

- No increment for employees who need improvement

For Year 2, we'll apply the same assumptions as in the previous response:

- The 11% increment applies to the top 20% of employees (best performers)

- The 5% increment applies to the next 60% of employees (average performers)

- The remaining 20% of employees (low performers) receive no increment.

11% Increment Amount for top 20% of employees = 11% of Rs. 84,616 = 0.11 × Rs. 84,616 = Rs. 9,308

5% Increment Amount for the next 60% of employees = 5% of Rs. 84,616 = 0.05 × Rs. 84,616 = Rs. 4,231

No increment for the remaining 20% of employees.

Total Increment Amount for all employees = Rs. 9,308 × 20% + Rs. 4,231 × 60% = Rs. 1,862 + Rs. 2,538 = Rs. 4,400

Average Salary at the beginning of Year 3 = Rs. 84,616 + Rs. 4,400 = Rs. 89,016

4. Year 3 Increment:

- 22% increment for top performers

- 9% increment for employees with satisfactory performance

- 3% increment for employees who need improvement

For Year 3, we'll apply the same assumptions as before:

- The 22% increment applies to the top 30% of employees (best performers)

- The 9% increment applies to the next 40% of employees (satisfactory performers)

- The remaining 30% of employees (need improvement) receive a 3% increment.

22% Increment Amount for top 30% of employees = 22% of Rs. 89,016 = 0.22 × Rs. 89,016 = Rs. 19,583

9% Increment Amount for the next 40% of employees = 9% of Rs. 89,016 = 0.09 × Rs. 89,016 = Rs. 8,013

3% Increment Amount for the remaining 30% of employees = 3% of Rs. 89,016 = 0.03 × Rs. 89,016 = Rs. 2,670

Total Increment Amount for all employees = Rs. 19,583 × 30% + Rs. 8,013 × 40% + Rs. 2,670 × 30% = Rs. 5,875 + Rs. 3,205 + Rs. 801 = Rs. 9,881

Average Salary at the beginning of Year 4 = Rs. 89,016 + Rs. 9,881 = Rs. 98,897

So, the average salary at the beginning of Year 4, assuming the same distribution of performance categories as in Year 3 and no new employees, would be Rs. 98,897 per month.

33 - c

To calculate the overall average score of all the students in these five subjects, we need to find the total sum of scores and the total number of students across all subjects.

Given the number of students and their respective average scores in each subject:

1. Mathematics: 89 students with an average score of 86.

2. Physics: 95 students with an average score of 73.

3. Chemistry: 120 students with an average score of 99.

4. History: 88 students with an average score of 56.

5. English: 67 students with an average score of 81.

Now, we will calculate the total sum of scores for each subject:

1. Total score for Mathematics = Number of students × Average score = 89 × 86

2. Total score for Physics = Number of students × Average score = 95 × 73

3. Total score for Chemistry = Number of students × Average score = 120 × 99

4. Total score for History = Number of students × Average score = 88 × 56

5. Total score for English = Number of students × Average score = 67 × 81

Now, let's find the total sum of scores across all subjects:

Total sum of scores = Sum of scores for Mathematics + Sum of scores for Physics + Sum of scores for Chemistry + Sum of scores for History + Sum of scores for English

Total sum of scores = (89 × 86) + (95 × 73) + (120 × 99) + (88 × 56) + (67 × 81)

Total sum of scores = 7654 + 6935 + 11880 + 4928 + 5427

Total sum of scores = 36824

Next, let's calculate the total number of students across all subjects:

Total number of students = Number of students in Mathematics + Number of students in Physics + Number of students in Chemistry + Number of students in History + Number of students in English

Total number of students = 89 + 95 + 120 + 88 + 67

Total number of students = 459

Finally, we can calculate the overall average score of all the students in these five subjects:

Overall average score = Total sum of scores / Total number of students

Overall average score = 36824/ 459

Overall average score ≈ 80.22

So, the overall average score of all the students in these five subjects is approximately 80

34 - d

To find the average score of the remaining students who took the Chemistry test, we need to consider the following steps:

Given information:

- Chemistry: 120 students with an average score of 99.

- 25% of the students who took the Chemistry test scored 100 marks.

Let's denote the number of students who scored 100 marks in the Chemistry test as "x." Therefore, the remaining students who did not score 100 marks would be 120 - x.

The average score of the Chemistry test is given as 99. This means the total sum of scores for all students who took the Chemistry test is:

Total sum of scores = Total number of students × Average score

Total sum of scores = 120 × 99

The sum of scores for the students who scored 100 marks (x students) is:

Sum of scores for x students = $x \times 100$

The sum of scores for the remaining students (120 - x students) is:

Sum of scores for remaining students $= (120 - x) \times$ Average score of remaining students

Since the total sum of scores for all students must equal the sum of scores for those who scored 100 marks plus the sum of scores for the remaining students:

Total sum of scores = Sum of scores for x students + Sum of scores for remaining students

Therefore,

$120 \times 99 = x \times 100 + (120 - x) \times$ Average score of remaining students

Solve for the Average score of remaining students:

Average score of remaining students = $(120 \times 99 - x \times 100) / (120 - x)$

Given that 25% of the students scored 100 marks ($x = 120 \times 0.25 = 30$):

Average score of remaining students = (120 × 99 - 28 × 100) / (120 - 28)

Average score of remaining students ≈ 98.69

The average score of the remaining students who took the Chemistry test is 99

35 - c

To find the new average score of the remaining students in the Mathematics test after excluding the top 10%, we need to calculate the number of students who scored in the top 10% and then find the total marks scored by them. After that, we can exclude these students from the total and calculate the new average score.

Given that there are 89 students who took the Mathematics test, the top 10% of students scoring the highest marks would be (10/100) × 89 = 8.9, which rounds up to 9 students.

Now, let's find the total marks scored by the top 10% of students:

Total marks scored by the top 10% of students = Number of students in the top 10% * Average score of the top 10% of students

= 9 × 95

= 855

Next, we need to find the total marks scored by all students in the Mathematics test:

Total marks scored by all students in Mathematics = Total number of students in Mathematics × Average score of all students in Mathematics

= 89 × 86

= 7646

Now, to find the total marks scored by the remaining students, we need to subtract the total marks scored by the top 10% of students from the total marks scored by all students:

Total marks scored by the remaining students = Total marks scored by all students in Mathematics - Total marks scored by the top 10% of students

= 7646 - 855

= 6791

Finally, we can find the new average score of the remaining students in the Mathematics test:

New average score of the remaining students = Total marks scored by the remaining students / Number of remaining students

= 6791 / (89 - 9)

= 6791 / 80

≈ 84.8875

So, the new average score of the remaining students in the Mathematics test, after excluding the top 10% of students, is approximately 84.89.

36 - d

To increase the average score in the Physics test from 75 to 78, we need to find the average score of the remaining students. Let's denote the average score of the remaining students as "x."

Given that there are 95 students who took the Physics test and the average score of the first 50 students was 75, we can calculate the total marks scored by the first 50 students:

Total marks scored by the first 50 students = Average score of the first 50 students × Number of students = 75 × 50 = 3750

Now, to achieve an average score of 78 for all 95 students, the total marks scored by all 95 students should be:

Total marks scored by all 95 students = Average score for all 95 students × Number of students = 78 × 95 = 7410

Next, we need to find the total marks scored by the remaining students (95 students - 50 students = 45 students):

Total marks scored by the remaining students = Total marks scored by all 95 students - Total marks scored by the first 50 students

= 7410 - 3750

= 3660

Finally, we can find the average score of the remaining students (45 students) to achieve an overall average score of 78:

Average score of the remaining students = Total marks scored by the remaining students / Number of remaining students

= 3660 / 45

≈ 81.3333

So, the average score of the remaining students in the Physics test should be approximately 81.33 to increase the overall average score to 78.

37 - a

Let's calculate the total discount that the customer will receive on the total bill based on the given information.

Given:

1. Smartphones: CP = Rs. 12,450, MP = Rs. 18,150, Discount = 20%

2. Laptops: CP = Rs. 40,380, MP = Rs. 60,300, Discount = 25%

3. Tablets: CP = Rs. 25,250, MP = Rs. 28,500, Discount = 15%

4. Smartwatches: CP = Rs. 8,560, MP = Rs. 12,150, Discount = 10%

The customer purchases:

- 3 smartphones

- 2 laptops

- 4 tablets

- 5 smartwatches

Let's calculate the discount for each product and then find the total discount:

Discount on Smartphones = Total quantity × Discount per unit

= 3 × (20% of Rs. 18,150)

= 3 × Rs. 3,630

= Rs. 10,890

Discount on Laptops = Total quantity × Discount per unit

= 2 × (25% of Rs. 60,300)

= 2 × Rs. 15,075

= Rs. 30,150

Discount on Tablets = Total quantity × Discount per unit

= 4 × (15% of Rs. 28,500)

= 4 × Rs. 4,275

= Rs. 17,100

Discount on Smartwatches = Total quantity × Discount per unit

= 5 × (10% of Rs. 12,150)

= 5 × Rs. 1,215

= Rs. 6,075

Total Discount = Discount on Smartphones + Discount on Laptops + Discount on Tablets + Discount on Smartwatches

= Rs. 10,890 + Rs. 30,150 + Rs. 17,100 + Rs. 6,075

= Rs. 64,215

Therefore, the customer will receive a total discount of Rs. 64,215 on the total bill.

38 - b

Let's calculate the selling price (SP) of one laptop after the additional 5% discount on the already discounted price.

Given:

Laptops: CP = Rs. 40,380, MP = Rs. 60,300, Discount = 25%, Additional Discount = 5%

Step 1: Calculate the initial discounted price of one laptop:

Discounted Price = Marked Price - Discount

= Rs. 60,300 - 25% of Rs. 60,300

= Rs. 60,300 - Rs. 15,075

= Rs. 45,225

Step 2: Calculate the additional discount on the discounted price:

Additional Discount = 5% of Discounted Price

= 5% of Rs. 45,225

= Rs. 2,261.25

Step 3: Calculate the final selling price (SP) after the additional discount:

Selling Price (SP) = Discounted Price - Additional Discount

= Rs. 45,225 - Rs. 2,261.25

= Rs. 42,963.75

Therefore, the selling price (SP) of one laptop after the additional 5% discount on the already discounted price will be Rs. 42,963.75.

39 - d

Let's calculate the selling price (SP) of one smartphone after applying the bulk purchase rate and the additional 10% discount on the marked price.
Given:

Bulk purchase rate per smartphone = Rs. 10,000

Discount on MP = 10%

Step 1: Calculate the discount amount on the marked price (MP):

Discount = 10% of MP

= 10% of Rs. 18,150

= Rs. 1,815

Step 2: Calculate the selling price (SP) after the discount:

SP = Bulk Purchase Rate - Discount

= Rs. 10,000 - Rs. 1,815

= Rs. 8,185

Therefore, the selling price of one smartphone after applying the 10% discount on the marked price and considering the bulk purchase rate would be Rs. 8,185.

40 - b

Given data:

- Cost price (CP) of laptops = Rs. 40,380

- Marked price (MP) of laptops = Rs. 60,300

- Discount offered on laptops = 25%

Step 1: Calculate the discount amount

Discount = 25% of MP of laptops

Discount = 0.25 × Rs. 60,300

Discount = Rs. 15,075

Step 2: Calculate the selling price (SP)

Selling Price (SP) = MP - Discount

SP = Rs. 60,300 - Rs. 15,075

SP = Rs. 45,225

So, the selling price of a laptop after applying the discount at TechZone is Rs. 45,225.
The correct option is B) Rs. 45,225.

41 - c

To create a solution with a concentration of 33%, we need to find the ratio in which Chemical-A and Chemical-B should be mixed.

Let's assume the required ratio of Chemical-A to Chemical-B is x : y.

The concentration of Chemical-A in the mixture = $(x / (x + y)) \times 11\%$

The concentration of Chemical-B in the mixture = $(y / (x + y)) \times 24\%$

Since we want the final concentration to be 33%, we can set up the following equation:

Concentration of Chemical-A + Concentration of Chemical-B = 33%

$[(x / (x + y)) \times 11\%] + [(y / (x + y)) \times 24\%] = 33\%$

Now, let's solve for x and y:

(0.11x + 0.24y) / (x + y) = 0.33

0.11x + 0.24y = 0.33x + 0.33y

0.33y - 0.24y = 0.33x - 0.11x

0.09y = 0.22x

y = (0.22x) / 0.09

y = 2.44x

Now, since we need the ratio of x : y, we can take any value for x and calculate the corresponding value of y. For simplicity, let's assume x = 9.

y = 2.44x

y = 2.44 $\times$ 9

y = 21.96 approx 22

So, the ratio of Chemical-A to Chemical-B should be 9 : 21.96 (which can be approximated to 9 : 22) to create a solution with a concentration of 33%.

42 - d

To find the new concentration of the final mixture after adding 1 liter of Chemical-C to the initial mixture of 2 liters of Chemical-A and 3 liters of Chemical-B, we need to calculate the total amount of each chemical in the mixture and then find the overall concentration.

Given the concentrations of each chemical in their respective solutions:

Chemical-A: 11% concentration

Chemical-B: 24% concentration

Chemical-C: 45% concentration

Let's calculate the total amount of each chemical in the mixture:

Total amount of Chemical-A = 2 liters (initially mixed)

Total amount of Chemical-B = 3 liters (initially mixed)

Total amount of Chemical-C = 1 liter (added later)

Now, let's calculate the total volume of the final mixture:

Total volume of the final mixture = Total amount of Chemical-A + Total amount of Chemical-B + Total amount of Chemical-C

= 2 liters + 3 liters + 1 liter

= 6 liters

Now, let's calculate the total concentration of the final mixture:

Total concentration of the final mixture = [(Total amount of Chemical-A × Concentration of Chemical-A) + (Total amount of Chemical-B × Concentration of Chemical-B) + (Total amount of Chemical-C × Concentration of Chemical-C)] / Total volume of the final mixture

Total concentration of the final mixture = [(2 liters × 11%) + (3 liters × 24%) + (1 liter × 45%)] / 6 liters

Total concentration of the final mixture = (22% + 72% + 45%) / 6

Total concentration of the final mixture = 139% / 6

Total concentration of the final mixture ≈ 23.17%

So, the new concentration of the final mixture after adding 1 liter of Chemical-C is approximately 23.17%.

43 - c

To solve this problem using the method of allegations, we'll set up a comparison between the mixture of Chemical-A and Chemical-C in the desired ratio and then calculate the amount of Chemical-C needed.

Given:

Chemical-A: 11% concentration.

Chemical-C: 45% concentration.

Desired ratio: 12 parts Chemical-A to 17 parts Chemical-C.

Chemical-A Chemical-C

Desired Ratio: 12 +17

Now, let's calculate the total number of parts in the desired ratio (12 + 17 = 29 parts).

To find out how much of Chemical-C should be added for 12 parts of Chemical-A, we'll set up an equation:

(Quantity of Chemical-C needed) / (Quantity of Chemical-A used) = (Parts of Chemical-C in desired ratio) / (Total parts in desired ratio)

Let "x" be the quantity of Chemical-C needed.

(x / 108) = (17 / 29)

Solve for "x":

x = (17 / 29) × 108

x ≈ 63.31

Therefore, the technician should add approximately 63.31 liters of Chemical-C to the mixture of 108 liters of Chemical-A to create the desired highly concentrated solution.

44 - d

To find the original concentration of the solution, we can use the method of allegations.

Let's assume the original concentration of the solution (before mixing with water) is "x%".

When the technician takes 14 liters of the solution and mixes it with 18 liters of pure water, the total volume of the resultant mixture becomes 14 + 18 = 32 liters.

The concentration of the resultant mixture is 16%.

Now, let's set up the following proportion:

Concentration of Chemical Solution : Concentration of Water = Volume of Chemical Solution : Volume of Water

In the original solution, the concentration is "x%", and the volume of the solution taken is 14 liters.

After mixing with water, the concentration becomes 16%, and the volume of the mixture becomes 32 liters (14 liters of solution + 18 liters of water).

So, the proportion is:

x% : 0% = 14 liters : 18 liters

Now, to find the original concentration "x%", we can use the method of allegations:

$x - 16 : 16 - 0 = 14 : 18$

$x - 16 : 16 = 14 : 18$

Cross-multiply:

$18(x - 16) = 14 \times 16$

$18x - 288 = 224$

$18x = 224 + 288$

$18x = 512$

Now, solve for x:

x = 512 / 18

x = 28.44

So, the original concentration of the solution was approximately 28.44%.

45 - d

The percentage of employees in Salary Range 2 is 45% and the percentage of employees in Salary Range 3 is 15%.

Since there are a total of 800employees, this means that there are (45% of 800) = 360 employees in Salary Range 2 and

(15% of 800) = 120 employees in Salary Range 3.

If the average salary of employees in Salary Range 2 is Rs55,510 and the average salary of employees in Salary Range 3 is Rs75,520, then the total salary of employees in Salary Range 2 is

(360 × Rs.55,510) = Rs19,983,600

and the total salary of employees in Salary Range 3 is

(120 × Rs.75,520) = Rs9,062,400.

Therefore, the ratio of the total salary of employees in Salary Range 2 to the total salary of employees in Salary Range 3 is Rs19,983,600 : Rs.9,062,400 = 16653:7552.

46 - b

Let the total number of employees in Salary Range 2 be x.

Number of female employees in Salary Range 2 = 36% of x = 0.36x

Number of male employees in Salary Range 2 = 144

Total number of employees in Salary Range 2 = Number of female employees + Number of male employees

X = 0.36x + 144

0.64x = 144

X = 144 / 0.64

X = 225

Therefore, the total number of employees in Salary Range 2 = 225.

47 - c

To find the number of employees in the salary range of Rs65,600 - Rs120,000, we need to add the percentages of employees in Salary Ranges 3 and 4.

Percentage of Employees in Salary Range 3 = 15%

Percentage of Employees in Salary Range 4 = 6%

Total percentage of employees in the range of Rs65,600 - Rs120,000 = 15% + 6% = 21%

Now, we can calculate the number of employees in this range based on the total number of employees (800):

Number of employees in the range of Rs65,600 - Rs120,000 = (21% of 800) = 0.21 × 800 = 168

Similarly, To find the number of employees in the salary range of Rs30,000 - Rs40,000, we need to get the percentage of employees i.e. exactly 32%

so, Number of employees in the range of Rs30,000 - Rs40,000 = (32% of 800) = 0.32 ×800 = 256

Difference = 256 -168 = 88 employees

48 - c

Initial strength of company was 800,

Left employees percentage = 30

Left employees strength = 25% of 800 = 200

Joined employees percentage = 20

Joined employees strength = 20 % of 200= 40

Current strength of company = 800-200+ 40= 560

To find the number of employees earning between Rs. 50,000 and Rs60,000 (inclusive of both salary ranges) we have to look for percentage ranges of 2

Percentage of Employees earning between Rs50,000 and Rs60,000 = Percentage of Employees in Salary Range 2

Percentage of Employees earning between Rs50,000 and Rs60,000 = 45%

Now the number is 45% of 560

i.e. 252

49 - b

Calculate the number of students interested in Sports and the number of students interested in Debate and Science Club combined, and then find the difference between them.

Step 1: Calculate the number of students interested in each activity.

Number of Students Interested in Sports = 35% of 700= 0.35 ×700= 245 students

Number of Students Interested in Debate and Science Club Combined = (11% + 19%) of 700= (0.11 + 0.19) ×700= 0.30 ×700= 210 students

Step 2: Find the difference between the number of students interested in Sports and the number of students interested in Debate and Science Club combined.

Difference = Number of Students Interested in Sports - Number of Students Interested in Debate and Science Club Combined

Difference = 245- 210= 35students

Therefore, there are 35more students interested in Sports than in Debate and Science Club combined.

50 - d

Percentage of students interested in Sports = 35%

Percentage of students interested in Music = 18%

Total students = 800

Number of students interested in Sports = 35% of 800 = 0.35 × 800 = 280

Number of students interested in Music = 18% of 800 = 0.18 × 800 = 144

To find the number of students interested in both Sports and Music, we can use the formula: Number of students interested in both = Total students - (Number of students interested in Sports + Number of students interested in Music)

Number of students interested in both = 800 - 280 + 144= 800 - 424 = 216

So, the correct answer is D) 216 students.

51- b

Number of students interested in both Sports and Art = 118

Total students = 800

Number of students interested in either Sports or Art = Percentage of students interested in Sports + Percentage of students interested in Art - Percentage of students interested in both Sports and Art

Number of students interested in either Sports or Art = 35% + 17% - 0% = 52%

Number of students interested in either Sports or Art = 0.52 × 800 = 416

Number of students interested in neither Sports nor Art = Total students - Number of students interested in either Sports or Art - Number of students interested in both Sports and Art

Number of students interested in neither Sports nor Art = 800 - 416 - 118= 266

Now the percentage of students interested in neither Sports nor Art = 266/800×100 =

33.25%

52 - a

Number of students interested in Music = 144

Number of students interested in Debate = 88

Number of students interested in Science Club = 152

Number of students potentially participating in the event involving at least two of the activities = Number of students interested in Music + Number of students interested in

Debate + Number of students interested in Science Club - Number of students interested in all three activities

Number of students interested in all three activities = Minimum of (Number of students interested in Music, Number of students interested in Debate, Number of students interested in Science Club)

Number of students interested in all three activities = Minimum of (144, 88, 152) = 88

Number of students potentially participating in the event = 144 + 88 + 152 - 88 = 296

percentage of students potentially participating in the event = 296/800 × 100= 37%

53 - c

Let's denote the initial quantities of Apple Juice, Orange Juice, and Pineapple Juice in the mixture as follows:

Initial ratio: Apple Juice : Orange Juice : Pineapple Juice = 3 : 5 : 7

Let's assume that the common factor for the initial quantities of each juice is "x." So, the initial quantities of the juices are:

- Apple Juice = 3x

- Orange Juice = 5x

- Pineapple Juice = 7x

Now, based on the given information that the vendor used 12 liters of Orange Juice, we can set up the equation:

5x = 12

Solving for "x":

x = 12 / 5

x = 2.4

Now we can find the initial quantities of each juice.

Initial Apple Juice = 3x = 3 × 2.4 = 7.2 liters

Initial Orange Juice = 5x = 5 × 2.4 = 12 liters

Initial Pineapple Juice = 7x = 7 × 2.4 = 16.8 liters

The total quantity of the initial mixture = Initial Apple Juice + Initial Orange Juice + Initial Pineapple Juice

= 7.2 + 12 + 16.8

= 36 liters

Therefore, the total quantity of the initial mixture was 36 liters.

54 - d

Let's assume the quantity of Apple Juice in the initial mixture is 3x, Orange Juice is 5x, and Pineapple Juice is 7x (since the initial ratio is 3:5:7).

In the first improvement, the vendor increased the amount of Apple Juice by 25% while keeping Orange Juice and Pineapple Juice the same.

So, the new quantity of Apple Juice $= 3x + 25\% \, of \, 3x = 3x + 0.75x = 3.75x$

The quantity of Orange Juice remains the same = 5x

The quantity of Pineapple Juice remains the same = 7x

Now, the vendor adds 4 liters of Pineapple Juice to the mixture. So, the new quantity of Pineapple Juice = 7x + 4 liters.

To retain the initial ratio, the new quantity of Apple Juice (3.75x) should be equal to the new quantity of Pineapple Juice (7x + 4 liters).

Now, equate the two expressions:

3.75x = 7x + 4

Solving for "x":

7x - 3.75x = 4

3.25x = 4

x = 4 / 3.25

x ≈ 1.23

So, the new quantities are:

Apple Juice ≈ 3.75 × 1.23 ≈ 4.6 liters

Orange Juice ≈ 5 × 1.23 ≈ 6.15 liters

Pineapple Juice ≈ 7 × 1.23 + 4 ≈ 12.61 liters

The final ratio of Apple Juice, Orange Juice, and Pineapple Juice in the new mixture is approximately 4.6 : 6.1 : 12.6.

55- d

Let's denote the required quantity of Orange Juice that needs to be added to maintain the desired ratio as "x" (in liters).

The desired ratio for the special mixture is: Apple Juice : Orange Juice : Pineapple Juice = 5 : 7 : 9

Given that the vendor has 20 liters of Pineapple Juice, we can set up an equation based on the desired ratio to find the quantity of Orange Juice:

(Quantity of Orange Juice) / (Quantity of Pineapple Juice) = 7 / 9

Substitute the values:

x / 20 = 7 / 9

Solve for "x":

x = (7 / 9) × 20

x ≈ 15.56

Therefore, the vendor should add approximately 15.56 liters of Orange Juice to the mixture in order to maintain the desired ratio of Apple Juice, Orange Juice, and Pineapple Juice as 5:7:9.

56 - c

Initially, the ratio of Apple Juice : Orange Juice : Pineapple Juice = 3 : 5 : 7.

After increasing Apple Juice by 25%, the new ratio becomes:

(3 + 0.25 ×3) : 5 : 7 = 3.75 : 5 : 7

Adding 4 liters of Pineapple Juice to the mixture:

New ratio becomes: 3.75 : 5 : (7 + 4) = 3.75 : 5 : 11

To maintain the initial ratio of Apple Juice, Orange Juice, and Pineapple Juice, we need to scale up the ratio to a common multiple. The common multiple of 3.75, 5, and 11 is 45.

So, the final mixture will have:

Apple Juice $= (3.75 / 19.75) \times 45 = 8.55$ liters (approximately)

Orange Juice = (5 / 19.75) ×45 = 11.39 liters (approximately)

Pineapple Juice = (11 / 19.75) × 45 = 25.06 liters (approximately)

Total quantity of the final mixture = 8.55 + 11.39 + 25.06 ≈ 45 liters.

The correct answer is option D) 45 liters.

57 - d

To find the profit percentage earned on the sale of laptops, we use the formula:

Profit Percentage = ((Selling Price – Cost Price) / Cost Price) ×100

Profit on laptops = Rs115000(Selling Price) - Rs80550(Cost Price) = Rs34450

Profit Percentage = ((Rs34450 / Rs80550) ×100) ≈ 42.76% approx 43

To find the profit percentage earned on the sale of headphones, we use the formula:

Profit Percentage = ((Selling Price – Cost Price) / Cost Price) ×100

Profit on headphones= Rs1150 (Selling Price) - Rs850 (Cost Price) = Rs300

Profit Percentage = ((Rs300 / Rs850) ×100) ≈35.29% approx 35

ratio of profit percentage earned on the sale of laptops with compared to that of headphones = 43:35

58 – d

To calculate the new selling price of tablets during the festive sale, we first need to find the profit percentage that the store wants to make on the cost price.

Given data for tablets:

Cost Price: Rs9550

Selling Price: Rs14520

Let's calculate the profit percentage on the cost price for tablets:

Profit = Selling Price - Cost Price = Rs14520- Rs9550= Rs4970

Profit Percentage on Cost Price = (Profit / Cost Price) ×100 = (Rs4970 / Rs9550) ×100 ≈ 52.04%

Now, the store wants to make a profit of 15% on the cost price during the sale. So, we need to adjust the selling price accordingly to achieve a 15% profit.

New Profit Percentage on Cost Price = 15%

Let the new selling price of tablets during the sale be "x".

New Profit = New Selling Price - Cost Price

We can set up the equation using the new profit percentage:

New Profit Percentage on Cost Price = (New Profit / Cost Price) ×100

15% = (x - Rs9550) / Rs9550× 100

Now, solve for "x":

15% = (x - Rs9550) / Rs9550× 100

0.15 = (x - Rs9550) / Rs9550

0.15 ×Rs9550= x - Rs9550

Rs1432.50 = x - Rs9550

x = Rs1432.50 + Rs9550

x = Rs10982.50

Therefore, the new selling price of tablets during the festive sale should be Rs10982.50 to achieve a 15% profit on the cost price after applying a 10% discount on the original selling price.

59 - d

Based on the information provided, the cost price of headphones is Rs850.

If the store incurs a loss of 5% on the cost price after offering a 23% discount during the clearance sale, the selling price should be such that the loss incurred is 5% of the cost price.

The loss incurred is calculated as the difference between the cost price and the selling price.

Let's say that the selling price of headphones during the clearance sale is x.

Then, we can write the equation for the loss incurred as

$850 - x = 0.05 \times 850$.

Solving for x, we get

$x = 850 - 0.05 * 850 = 807.5$

However, this selling price does not take into account the 23% discount offered during the clearance sale.

If the store offers a 23% discount on the selling price, then the final selling price of headphones during the clearance sale would be

$0.77 \times x = 0.77 \times 807.5 =$ Rs621.77

Therefore, to incur a loss of 5% on the cost price while offering a 23% discount on the selling price, the effective selling price of headphones during the clearance sale should be Rs621.77

60 - c

To calculate the profit percentage earned on the sale of smartphones with the new pricing strategy, we need to consider the changes in both the selling price and the number of smartphones sold.

Given data for smartphones:

Cost Price: Rs20500

Selling Price: Rs28050

Calculate the profit percentage without the new pricing strategy:

Profit = Selling Price - Cost Price = Rs28050- Rs20500= Rs7550

Profit Percentage = (Profit / Cost Price) × 100 = (Rs7550 / Rs20500) × 100 = 36.82%

Now, with the new pricing strategy:

New Selling Price = Rs28050 - Rs1500 = Rs26550 (Reduced by Rs1500)

Number of Smartphones Sold (with the new pricing strategy) = 120 + 20% of 120 = 120 + (20/100) × 120 = 120 + 24 = 144

New Profit = New Selling Price - Cost Price = Rs26550 - Rs20500= Rs 6050

New Profit Percentage = (New Profit / Cost Price) × 100 = (Rs 6050 / Rs20500) × 100 ≈ 29.51%

Therefore, with the new pricing strategy, the profit percentage earned on the sale of smartphones is approximately 29.51%.

The store manager reduced the selling price by Rs1500, which resulted in a 20% increase in the number of smartphones sold, but it also reduced the profit percentage from 36.82% to 29.51%.

61 - c

To find the maximum possible average score for the students who passed in all five subjects, we need to find the average score of the top-performing students.

Given:

Total number of students = 335

Let's assume "x" students passed in all five subjects.

Since 60% of the students passed in all five subjects, we can write the equation:

x = 60% of total number of students

x = (60/100) ×330

x = 198

we are looking for the maximum possible average score:

Now, we know that 198 students passed in all five subjects. To find the maximum possible average score, we need to consider the average scores of the top-performing students in each subject.

Maximum possible average score = Average score in Mathematics + Average score in Physics + Average score in Chemistry + Average score in History + Average score in English

Maximum possible average score = (88 + 79 + 91 + 73 + 87) / 5

Maximum possible average score = 418 / 5

Maximum possible average score = 83.6

So, the maximum possible average score for the students who passed in all subjects is 83.6.

62 - b

First, let's calculate the sum of the scores in each subject and the total sum of scores:

Sum of Mathematics scores = 330 students ×88 = 29040

Sum of Physics scores = 330 students ×79 = 26070

Sum of Chemistry scores = 330 students ×96 = 31680 (this value is incorrect and should be 330 students ×92 = 30360)

Sum of History scores = 330 students ×73 = 24090

Sum of English scores = 330 students ×87 = 28710

Now, we need to recalculate the total sum of scores with the corrected Chemistry score:

Corrected sum of Chemistry scores = 30360

Total sum of scores = Sum of Mathematics scores + Sum of Physics scores + Corrected sum of Chemistry scores + Sum of History scores + Sum of English scores

Total sum of scores = 29040 + 26070 + 30360 + 24090 + 28710 = 138270

The new overall average test score for all subjects = Total sum of scores / Total number of students

New overall average test score = 138270 / 330 ≈ 418.64

Rounded to the nearest whole number, the new overall average test score would be 419.

63 - c

To find the average test score of all students who took Mathematics, we need to calculate the weighted average of the average scores of boys and girls, considering the number of boys and girls who took the exam.

Given:

Average score of boys in Mathematics = 90

Average score of girls in Mathematics = 80

Number of boys who took the exam = 120

Number of girls who took the exam = Total number of students - Number of boys = 330 - 120 = 210

Now, let's calculate the weighted average:

Weighted average = (Average score of boys ×Number of boys + Average score of girls ×Number of girls) / Total number of students

Weighted average = (90 ×120 + 80 ×210) / 330

Weighted average = (10800 + 16800) / 330

Weighted average = 27600 / 330

Weighted average ≈ 83.64

Rounded to the nearest whole number, the average test score of all students who took Mathematics would be 84.

64 - b

To find the overall average test score for all subjects, we need to calculate the average of the average scores in each subject.

The overall average test score is the sum of average scores in all subjects divided by the total number of subjects.

Overall average test score = (88 + 79 + 91 + 73 + 87) / 5

Overall average test score = 418 / 5

Overall average test score = 83.6

Therefore, the correct option is: B) 83.6

65 - a

To find the total number of skilled and unskilled workers across all three projects, we add the number of skilled and unskilled workers for each project.

Total Skilled Workers = 45 (Project A) + 65(Project B) + 35(Project C) = 145

Total Unskilled Workers = 75 (Project A) + 85(Project B) + 55(Project C) = 215

The ratio of skilled to unskilled workers is 145:215, which simplifies to 29:43

Therefore, the correct answer is option A)

66 - c

To find the average working hours of skilled workers, we first calculate the total working hours of all skilled workers and then divide it by the total number of skilled workers.

Total working hours of skilled workers = 1155 (Project A) + 2575 (Project B) + 1285 (Project C) = 5015

Total Skilled Workers = 45 (Project A) + 65(Project B) + 35(Project C) = 145

Average working hours of skilled workers = Total working hours / Total skilled workers = 5015 / 145 ≈ 34.58

67 - a

The total working hours of skilled workers across all projects can be calculated by adding the working hours of skilled workers in each project: Total Working Hours of Skilled Workers = 1,155 + 2,575 + 1,285 = 5,015 hours.

If the company wants to increase the total working hours of skilled workers by 15%, the total increase in working hours can be calculated as follows: Total Increase in Working Hours = 5,015 $\times$0.15 = 752.25 hours.

Let x be the average working hours of skilled workers in Project C. Since the average working hours of skilled workers in Project B are 40% more than the average working hours of skilled workers in Project C, we can write the equation: x $\times$1.4 = (2,575 / 65) Solving for x, we get: x = (2,575 / 65) / 1.4 x ≈ 28.57 hours/worker.

Since there are 35 skilled workers in Project C, the total working hours of skilled workers in Project C can be calculated as follows: Total Working Hours of Skilled Workers in Project C = x $\times$35 = 1,000 hours.

Let y be the total increase in working hours of skilled workers in Project A.

Since we know that the total increase in working hours across all projects is 752.25 hours and that the total increase in working hours of skilled workers in Project C is (1,285 - 1,000) = 285 hours (since we calculated that the total working hours of skilled workers in Project C before increasing productivity was 1,000 hours),

we can write the equation: y + (2,575 $\times$0.15) + (285) = 752.25

Solving for y, we get: y = 752.25 - (2,575 $\times$0.15) - (285) y ≈ 173.25 hours.

Therefore, the total increase in working hours of skilled workers in Project A is approximately 173.25 hours.

Hence, the correct answer is a) 173.25.

68 - c

Calculate the current number of skilled workers and unskilled workers in Project B:

- Current skilled workers in Project B = 65 skilled workers

- Current unskilled workers in Project B = 85 unskilled workers

Calculate the increase in the number of skilled workers in Project B by 40%:

- Increased skilled workers = 65 skilled workers ×0.4 = 26 skilled workers

Calculate the new number of skilled workers and unskilled workers in Project B after hiring:

- New skilled workers in Project B = Current skilled workers + Increased skilled workers = 65 + 26 = 91 skilled workers

- New unskilled workers in Project B = Current unskilled workers = 85 unskilled workers

Calculate the new ratio of skilled to unskilled workers in Project B:

- Current ratio = 12:13

- New ratio = (Current skilled workers + Increased skilled workers):(Current unskilled workers) = 91:85

Reduce the new ratio to its simplest form:

- Divide both numbers by their greatest common divisor (GCD)

- GCD(91, 85) = 1

- New ratio = 91:85

So, the correct answer is c.

69 - b

According to the given data, the cost price and selling price of each product at “Fashion Hub” are as follows:

Dresses

Cost Price: Rs1155

Selling Price: Rs2550

Product: Shirts

Cost Price: Rs8110

Selling Price: Rs9150

Product: Handbags

Cost Price: Rs1190

Selling Price: Rs1680

Product: Shoes

Cost Price: Rs1200

Selling Price: Rs1650

Product: Jewelry

Cost Price: Rs25600

Selling Price: Rs32520

The overall profit or loss percentage earned by the store from the sale of all products combined can be calculated using the formula:

Overall Profit or Loss Percentage = ((Total Selling Price - Total Cost Price) / Total Cost Price) ×100

First, let's calculate the total cost price and total selling price of all products combined:

Total Cost Price = Rs1155 + Rs8110 + Rs1190 + Rs1200 + Rs25600 = Rs37255

Total Selling Price = Rs2550 + Rs7150 + Rs1680 + Rs1150 + Rs32520 = Rs45050

Now, we can calculate the overall profit percentage earned by the store from the sale of all products combined as follows: Overall Profit or Loss Percentage = ((Rs45050 - Rs37255) / Rs37255) ×100 ≈ 20.92%

Therefore, the overall profit percentage earned by the store from the sale of all products combined is approximately 21%.

70 - a

To calculate the profit for each product, we need to subtract the cost price from the selling price. Then, we can calculate the profit percentage using the formula:

Profit Percentage = (Profit / Cost Price) ×100

1. For Dresses:

- Profit = Selling Price - Cost Price = Rs2550 - Rs1155 = Rs1395

- Profit Percentage = (Rs1395 / Rs1155) ×100 ≈ 120.69%

2. For Shirts:

- Profit = Selling Price - Cost Price = Rs7150 - Rs8110 = -Rs960 (Loss)

- Since there's a loss, profit percentage cannot be calculated.

3. For Handbags:

- Profit = Selling Price - Cost Price = Rs1680 - Rs1190 = Rs490

- Profit Percentage = (Rs490 / Rs1190) ×100 ≈ 41.18%

4. For Shoes:

- Profit = Selling Price - Cost Price = Rs1150 - Rs1200 = -Rs50 (Loss)

- Since there's a loss, profit percentage cannot be calculated.

5. For Jewelry:

- Profit = Selling Price - Cost Price = Rs32520 - Rs25600 = Rs6910

- Profit Percentage = (Rs6910 / Rs25600) ×100 ≈ 27%

The product with the maximum profit is Dresses with a profit percentage of approximately 120.69%.So, the correct answer is (a) Dresses.

71 - b

Let's calculate the profit percentage with the new pricing strategy for handbags.

Original Selling Price of Handbags = Rs1680

Reduced Selling Price = Rs1680 - Rs150 = Rs1530

Original Number of Handbags Sold = 200

Increased Number of Handbags Sold = Original Number ×(1 + Increase Percentage)

Increased Number of Handbags Sold = 200× 1.25 = 250

Profit = Selling Price - Cost Price

Original Profit = Rs1680 - Rs1190 = Rs490

New Profit = (Reduced Selling Price ×Increased Number of Handbags Sold) - Cost Price of 250 bags

New Profit = (Rs1530 ×250) - Rs1190 ×250 = Rs382500 - Rs 297500= Rs 85000

Profit Percentage with New Strategy = (New Profit / Cost Price) ×100

Profit Percentage = (Rs 85000 / Rs 297500) ×100 ≈ 28.57%

So, the correct answer is (b)

72 - c

According to the data provided, the current cost price of dresses is Rs1155.

If the store wants to make a profit of 25% on the cost price, the selling price of dresses should be:

Selling Price = Cost Price ×(1 + Profit Percentage / 100)

Selling Price = Rs1155 ×(1 + 25 / 100) = Rs1443.75

If the store wants to offer a 15% discount on dresses during a clearance sale, the new selling price of dresses during the sale can be calculated as follows:

New Selling Price = Selling Price ×(1 - Discount Percentage / 100)

New Selling Price = Rs1443.75 ×(1 - 15 / 100) = Rs1227.19

Therefore, if the store wants to offer a 15% discount on dresses during a clearance sale and still make a profit of 25% on the cost price, the new selling price of dresses during the sale should be approximately Rs1227.19.

73 - b

To calculate the percentage increase in total sales revenue from April to June, we can use the formula:

Percentage Increase = ((New Value - Old Value) / Old Value) ×100

Where:

- Old Value = Total sales revenue in April

- New Value = Total sales revenue in June

Old Value (April) = Rs. 8,55,650

New Value (June) = Rs. 12,55,890

Percentage Increase = ((12,55,890 - 8,55,650) / 8,55,650) ×100

Percentage Increase = (4,00,240 / 8,55,650) ×100

Percentage Increase = 46.77%

The percentage increase in the total sales revenue from April to June is approximately 46.77%.

74 - d

Calculate the percentage increase in the sales revenue of accessories from April to June.

Sales revenue from accessories in April = 45% of total sales revenue in April = 0.45 × Rs. 8,55,650 = Rs. 3,85,042.50

Sales revenue from accessories in June = 41% of total sales revenue in June = 0.41 × Rs. 12,55,890 = Rs. 5,14,914.90

Percentage increase in sales revenue of accessories from April to June = [(Sales revenue in June - Sales revenue in April) / Sales revenue in April] ×100

Percentage increase = [(Rs. 5,14,914.90 - Rs. 3,85,042.50) / Rs. 3,85,042.50] ×100 ≈ 33.72%

The sales revenue of accessories increased by approximately 33.72% from April to June.

75 - c

Calculate the sales revenue from clothing in June.

Sales of clothing in May = 35% of total sales revenue in May

Sales revenue from clothing in May = 0.35 ×Rs. 10,28,690

Increase in sales of clothing in June compared to May = 28% of sales of clothing in May

Increase in sales revenue from clothing in June = 0.28 ×(0.35 ×Rs. 10,28,690)

Sales revenue from clothing in June = Sales revenue from clothing in May + Increase in sales revenue from clothing in June

Sales revenue from clothing in May = 0.35 ×Rs. 10,28,690 = Rs. 360041.50

Increase in sales revenue from clothing in June = 0.28 ×(0.35 ×Rs. 1028690) = Rs. 100811.64

Sales revenue from clothing in June = Rs. 360041.50

+ Rs. 100811.64 = Rs. 460853.12

The sales revenue from clothing in June was Rs. 460853.12

76 - d

Calculate the sales revenue from accessories in May to achieve a 15% increase compared to April.

Sales revenue from accessories in April = 45% of total sales revenue in April
Target increase in sales revenue from accessories in May = 15% of sales revenue from accessories in April
Target sales revenue from accessories in May = Sales revenue from accessories in April + Target increase in sales revenue from accessories in May

Sales revenue from accessories in April = 0.45 ×Rs. 8,55,650 = Rs. 3,85,042.50
Target increase in sales revenue from accessories in May = 0.15 ×Rs. 3,85,042.50 = Rs. 57,756.37

Target sales revenue from accessories in May = Rs. 3,85,042.50 + Rs. 57,756.37= Rs. 4,42,798.88

The store should aim for a sales revenue from accessories of Rs. 4,42,798.88 in May to achieve a 15% increase compared to April.

77 - b
To find the average cost per liter of the mixture for Mixing Ratio 1, we need to calculate the weighted average of the costs of the three shades of paint (A, B, and C) in the given mixing ratio.

Given Mixing Ratio 1: Shade A: Shade B: Shade C = 12:13:5

Cost per liter for Shade A = Rs. 590
Cost per liter for Shade B = Rs. 815
Cost per liter for Shade C = Rs. 680

Total parts in Mixing Ratio 1 = 12 + 13 + 5 = 30

Now, calculate the weighted average cost per liter of the mixture:

Weighted average cost = (Cost per liter of Shade A × Parts of Shade A) +
(Cost per liter of Shade B × Parts of Shade B) +
(Cost per liter of Shade C × Parts of Shade C) /

Total parts in Mixing Ratio 1
Weighted average cost = (590 ×12 + 815 ×13 + 680 ×5) / 30
Weighted average cost = (7080 + 10595 + 3400) / 30
Weighted average cost = 21075 / 30
Weighted average cost = Rs. 702.50

Therefore, the average cost per liter of the mixture for Mixing Ratio 1 is Rs. 702.50.

78 - b

To find the mixing ratio of Shade A and Shade B for Mixing Ratio 2 with a desired color intensity of 59%, we can set up an equation based on the color intensity percentages of each shade in the mixture.

Given Mixing Ratio 2: Shade A: Shade B = 11:14

Color Intensity for Shade A = 65%
Color Intensity for Shade B = 75%

Desired Color Intensity = 59%

Let's assume x represents the parts of Shade A and y represents the parts of Shade B in the desired mixing ratio.

We have the equation:
(65x + 75y) / (x + y) = 59

Now we can solve for y in terms of x:
65x + 75y = 59x + 59y
6x = 16y
x/y = 16/6
x:y = 8:3
So, the mixing ratio of Shade A to Shade B for Mixing Ratio 2 should be 8:3.

79 - d

For Mixing Ratio 3, the proportions of Shade B to Shade C are 5:12. This means that for every 5 parts of Shade B, there are 12 parts of Shade C.

Given that the total volume of the mixture is 1520 liters, we can calculate the volume of Shade C as follows:

Volume of Shade C = (Volume of Shade B) × (Proportion of Shade C in Mixing Ratio 3)
Volume of Shade C = (1520 / (5 + 12)) × 12

Volume of Shade C = (1520 / 17) × 12
Volume of Shade C = 1072.9liters

Now, we can calculate the cost of Shade C used:

Cost of Shade C = (Volume of Shade C) × (Cost per liter of Shade C)
Cost of Shade C = 1072.9× 680
Cost of Shade C = Rs. 7,29,600

So, the cost of Shade C used in Mixing Ratio 3 for a total volume of 1520 liters is Rs. 7,29,600

80 - d

For Mixing Ratio 1, the proportions of Shade A, Shade B, and Shade C are 12:13:5.

To calculate the colour intensity of the mixture for Mixing Ratio 1, we need to find the weighted average of the colour intensities of the three shades based on their proportions.

Colour Intensity of Mixture for Mixing Ratio 1 = [(Proportion of Shade A) × (Color Intensity of Shade A)] + [(Proportion of Shade B) × (Color Intensity of Shade B)] + [(Proportion of Shade C) × (Color Intensity of Shade C)]

Color Intensity of Mixture for Mixing Ratio 1 = [(12 / (12 + 13 + 5)) × 65%] + [(13 / (12 + 13 + 5)) × 75%] + [(5 / (12 + 13 + 5)) × 45%]

26+32.5+7.5 = 66
Color Intensity of Mixture for Mixing Ratio 1 = 66%

81 - d

To calculate the profit percentage for the bookstore in the year 2021, we need to determine the profit and then express it as a percentage of the total expenses.

Total revenue from book sales = Rs. 15,55,640
Total expenses = Rs. 12,80,710

Profit = Total revenue - Total expenses
Profit = Rs. 15,55,640 - Rs. 12,80,710 = Rs. 2,74,930

Now, let's calculate the profit percentage:

Profit percentage = (Profit / Total expenses) ×100
Profit percentage = (Rs. 2,74,930 / Rs. 12,80,710) ×100
Profit percentage ≈ 21.45%

The profit percentage for the bookstore in the year 2021 is approximately 21.45%.

82 - d

To calculate the selling price of books, we need to consider the desired profit margin and the cost price of books. The profit margin is given as a percentage of the cost price.

Given information:
Profit margin = 30% (0.30)
Cost price of books = 65% of total expenses = 65% of Rs. 12,80,710

First, calculate the cost price of books:
Cost price of books = (65/100) × Rs. 12,80,710

Now, calculate the desired profit on the cost price of books:
Desired profit = Profit margin ×Cost price of books

Next, calculate the selling price of books:
Selling price = Cost price + Desired profit

Let's perform the calculations step by step:

Cost price of books = (65/100) ×Rs. 12,80,710 = Rs. 8,32,461.50
Desired profit = 0.30 ×Rs. 8,32,461.50 = Rs. 2,49,738.45
Selling price = Cost price + Desired profit = Rs. 8,32,461.50 + Rs. 2,49,738.45 = Rs. 10,82,199.95
Therefore, the selling price of books should be approximately Rs. 10,82,199.95 to achieve a profit margin of 30% on the cost price of books.

83 - c

To calculate the new total revenue during the promotion with a 11% discount on all book sales, we need to find the discount amount and subtract it from the original total revenue.

Given information:
Total revenue from book sales = Rs. 15,55,640
Discount percentage = 11% i.e.(0.11)

First, calculate the discount amount:
Discount amount = Discount percentage ×Total revenue from book sales

Next, calculate the new total revenue during the promotion:
New total revenue = Total revenue - Discount amount

Let's perform the calculations step by step:

Discount amount = 0.11 ×Rs. 15,55,640 = Rs. 1,71,1204
New total revenue = Rs. 15,55,640 - Rs. 1,71,1204 = Rs. 13,84,519.6

Therefore, the new total revenue during the promotion with a 10% discount on all book sales would be Rs. 13,84,519.6

84 - a

To calculate the total revenue from book sales needed to achieve a profit of Rs. 4,00,000 in 2021, we need to consider the total expenses, including the cost price of books, salaries, rent, and other overheads.

Given information:
Profit target = Rs. 4,00,000
Total expenses = Rs. 12,80,710
Cost price of books = 65% of total expenses

The formula to calculate profit is:
Profit = Total revenue - Total expenses

We can rearrange the formula to solve for total revenue:
Total revenue = Profit + Total expenses

First, calculate the cost price of books:
Cost price of books = 65% ×Total expenses

Next, calculate the profit by adding the desired profit to the total expenses:
Profit = Rs. 4,00,000
Total expenses = Rs. 12,80,710

Total revenue = Profit + Total expenses

Let's perform the calculations step by step:

Cost price of books = 0.65 ×Rs. 12,80,710 = Rs. 8,32,461.5
Total revenue = Rs. 4,00,000 + Rs. 12,80,710 = Rs. 16,80,710

Therefore, to achieve a profit of Rs. 4,00,000 in 2021, the total revenue from book sales should be Rs. 16,80,710.

85 - d

To calculate the total amount of money spent by participants at the Mock Trials (Game Stall 3), we can use the formula:

Total money spent = Number of participants × Average money spent per participant

For Game Stall 3 (Mock Trials):

Number of participants = 120

Average money spent per participant = Rs. 25200

Total money spent at Mock Trials = 120 × 25200

Total money spent at Mock Trials = Rs. 30,24,000

The total amount of money spent by participants at the Mock Trials (Game Stall 3) is Rs. 30,24,000.

86 - a

To calculate the additional donation needed to meet the budget after considering the donations received from all three booths, we need to subtract the sum of the donations received from the total budget.

Given data:

Total budget = Rs. 1,25,480

Donation received from Donation Booth 1 = Rs. 16,650

Donation received from Donation Booth 2 = Rs. 19,600

Donation received from Donation Booth 3 = Rs. 12,520

Total donations received = Donation Booth 1 + Donation Booth 2 + Donation Booth 3

Total donations received = Rs. 16,650 + Rs. 19,600 + Rs. 12,520

Total donations received = Rs. 48,770

Additional donation needed = Total budget - Total donations received

Additional donation needed = Rs. 1,25,480 - Rs. 48,770

Additional donation needed = Rs. 76,710

The additional donation needed to meet the budget after considering the donations received from all three booths is Rs. 76,710.

87 - d

Given data for Game Stall 2 (Legal Puzzles):

Number of participants = 150

Average money spent per participant = Rs. 19850

If the average money spent per participant at Legal Puzzles is increased by 25%, the new average money spent per participant will be:

New average money spent per participant = Average money spent per participant + (25% of Average money spent per participant)

New average money spent per participant = Rs. 19850 + (0.25 ×Rs. 19850)

New average money spent per participant = Rs. 24812.50

Total money earned from Legal Puzzles = Number of participants × New average money spent per participant

Total money earned from Legal Puzzles = 150 × Rs. 24812.50

Total money earned from Legal Puzzles = Rs. 3,72,1875

The new total money earned from the Legal Puzzles (Game Stall 2) after increasing the average money spent per participant by 25% is Rs. 3,72,1875.

88 - a

Now, let's calculate the ratio of the total money spent by participants at the Constitution Quiz to the total money spent by participants at the Legal Puzzles:

The total money spent by participants at the Constitution Quiz (Game Stall 1) is 180 × Rs.12520.50 = Rs. 2,253,690.

The total money spent by participants at the Legal Puzzles (Game Stall 2) is 150 × Rs. 19850 = Rs. 2,977,500.

The ratio of the total money spent by participants at the Constitution Quiz (Game Stall 1) to the total money spent by participants at the Legal Puzzles (Game Stall 2) is

Rs. 2,253,690 : Rs. 2,977,500 = 3:4.

89 - b

To calculate the average monthly salary of all five employees, you need to sum up the monthly salaries of all employees and then divide by the total number of employees (which is 5 in this case):

Total monthly salary = Rs.45510 + Rs35410 + Rs55120 + Rs64520 + Rs71150

Total monthly salary = Rs271710

Average monthly salary = Total monthly salary / Total number of employees

Average monthly salary = Rs271710 / 5

Average monthly salary = Rs54,342

The average monthly salary of all five employees is Rs54,342.

90 - b

The ratio of projects completed per month to monthly salary for each employee can be calculated as follows:

Employee 1: (18/6) / Rs45510 = 0.000066

Employee 2: (26/6) / Rs35410 = 0.000122

Employee 3: (21/6) / Rs55120 = 0.000064

Employee 4: (17/6) / Rs64520 = 0.000044

Employee 5: (13/6) / Rs71150 = 0.000031

Employee 2 has the highest ratio of projects completed per month to monthly salary, with a value of 0.000122.

91 - d

To find out which employee would receive the maximum monthly salary after a 26% increase for those who completed more than 10 projects in 6 months, we can calculate the increased salaries for each employee and compare them.

1. Employee 1:

Increased Salary = Rs. 45510 + 0.26 × Rs. 45510 = Rs 57342.6

2. Employee 2:

Increased Salary = Rs. 35410 + 0.26 × Rs. 35410 =. Rs 44616.6

3. Employee 3:

Increased Salary = Rs. 55120 + 0.26 × Rs. 55120 = Rs 69451.2

4. Employee 4:

Increased Salary = Rs. 64520 + 0.26 × Rs. 64520 = Rs 81295.2

5. Employee 5:

Increased Salary = Rs. 71150 + 0.26 × Rs. 71150 = Rs 89649

Among the employees who completed more than 10 projects, Employee 5 would receive the maximum monthly salary after a 26% increase, which is Rs. 89649

92 - d

Employee 3's current average monthly salary = Rs. 55,120

Employee 3 wants to increase their average monthly salary to Rs. 85,510.

Mow , we have to calculate the required total salary for the next 6 months to achieve this target:

Required total salary = Desired average monthly salary ×Number of months

Required total salary = Rs. 85,510 ×6

Required total salary = Rs. 513,060

Employee 3's current total salary for 6 months = Rs. 55,120 ×6 = Rs. 330,720

Additional salary needed = Required total salary - Current total salary

Additional salary needed = Rs. 513,060 - Rs. 330,720

Additional salary needed = Rs. 182,340

Therefore, Employee 3 should have a total salary of Rs. 182,340 for the next 6 months to achieve the target average monthly salary of Rs. 85,510.

93 - c

For Constitutional Commentaries (Category C):

Marked Price per book = Rs. 785

Discount percentage = 29%

Discount per book = Marked Price ×Discount percentage

Discount per book = Rs. 785 ×0.29 = Rs. 227.65

Number of books sold = 81

Total amount of discount given on the sales of Constitutional Commentaries books = Discount per book × Number of books sold

Total amount of discount = Rs. 227.65 ×81 = Rs. 18,439.65

Therefore, the total amount of discount given on the sales of Constitutional Commentaries (Category C) books is Rs. 18,439.65

94 - b

To find the percentage difference in total revenue generated from the sales of Legal Fiction (Category E) books to that of Legal Thrillers (Category A) books, we need to calculate the total revenue for each category and then find the percentage difference.

For Legal Thrillers (Category A):

Marked Price per book = Rs. 455.50

Discount percentage = 21%

Number of books sold = 128

Discount per book = Marked Price ×Discount percentage

Discount per book = Rs. 455.50 ×0.21 = Rs. 95.655

Discounted Price per book = Marked Price - Discount per book

Discounted Price per book = Rs. 455.50 - Rs. 95.655 = Rs. 359.845

Total revenue from Legal Thrillers = Discounted Price per book

×Number of books sold

Total revenue from Legal Thrillers = Rs. 359.845 ×128 = Rs. 46,060.16

For Legal Fiction (Category E):

Marked Price per book = Rs. 1325

Discount percentage = 33%

Number of books sold = 135

Discount per book = Marked Price ×Discount percentage

Discount per book = Rs. 1325 ×0.33 = Rs. 437.25

Discounted Price per book = Marked Price - Discount per book

Discounted Price per book = Rs. 1325 - Rs. 437.25 = Rs. 887.75

Total revenue from Legal Fiction = Discounted Price per book ×Number of books sold

Total revenue from Legal Fiction = Rs. 887.75 ×135 = Rs. 1,19,846.25

Now, let's find the percentage difference in total revenue:

Percentage Difference = [(Total revenue from Legal Fiction - Total revenue from Legal Thrillers) / Total revenue from Legal Thrillers] ×100

Percentage Difference = [(Rs. 1,19,846.25 - Rs. 46,060.16) / Rs. 46,060.16] ×100

Percentage Difference = (Rs. 73,926.11 / Rs. 46,052.64) ×100

Percentage Difference ≈ 160.19 %

The percentage difference in total revenue generated from the sales of Legal Fiction (Category E) books to that of Legal Thrillers (Category A) books is approximately 160.19%.

95 - d

For Category A, the selling price per book is Rs. 455.50 - $(0.21 \times Rs.\ 455.50)$ = Rs. 359.85, and the total revenue is Rs. 359.85 ×128 = Rs. 46060.80.

For Category B, the selling price per book is Rs. 655 - $(0.15 \times Rs.\ 655)$ = Rs. 556.75, and the total revenue is Rs. 556.75 ×96 = Rs. 53448.

For Category C, the selling price per book is Rs. 785 - $(0.29 \times Rs.\ 785)$ = Rs. 557.35, and the total revenue is Rs. 557.35 ×81 = Rs. 45145.35.

For Category D, the selling price per book is Rs. 1150 -$(0.41 \times Rs.\ 1150)$ = Rs. 678.50, and the total revenue is Rs. 678.50 ×117 = Rs. 79384.50.

For Category E, the selling price per book is Rs. 1325 -$(0.33 \times Rs.\ 1325)$ = Rs. 887.75, and the total revenue is Rs. 888.75 ×135 = Rs.119981.25

Comparing the total revenues for each category:

Category A: Rs. 46060.80.

Category B: Rs. 53448.

Category C: Rs. 45145.35.

Category D: Rs. 79384.50.

Category E: Rs. Rs.119981.25

Category E (Legal Fiction) had the highest total revenue during the sale.

96 - d

Let's calculate the total revenue generated from the sale of Category A (Legal Thrillers) and Category B (Case Law Compendiums) books combined.

For Category A (Legal Thrillers):
- Marked Price per book: Rs. 455.50
- Discount percentage: 21%
- Number of books sold: 128

For Category B (Case Law Compendiums):
- Marked Price per book: Rs. 655
- Discount percentage: 15%
- Number of books sold: 96

The revenue from each category can be calculated using the formula:

Revenue = (Marked Price per book - Marked Price per book ×Discount percentage) × Number of books sold

For Category A:
Revenue from Category A = (455.50 -(455.50 × 0.21)) × 128

For Category B:
Revenue from Category B = (655 - (655 × 0.15)) × 96

Total Revenue from Category A and B = Revenue from Category A + Revenue from Category B

Calculate the values:
Revenue from Category A = 359.845 × 128 ≈ Rs. 46060.16
Revenue from Category B = 556.75 × 96 ≈ Rs. 53448

Total Revenue from Category A and B = 46060.16 + 53448 ≈ Rs. 99,508.16

So, the total revenue generated by the bookstore from the sale of Category A and Category B books combined is approximately Rs. 99,508.16

97 - d

To calculate the total amount of money spent by participants at the Mock Trials (Game Stall 3), we can use the formula:

Total money spent = Number of participants × Average money spent per participant

For Game Stall 3 (Mock Trials):

Number of participants = 120

Average money spent per participant = Rs. 25200

Total money spent at Mock Trials = 120 × 25200

Total money spent at Mock Trials = Rs. 30,24,000

The total amount of money spent by participants at the Mock Trials (Game Stall 3) is Rs. 30,24,000.

98 - a

To calculate the additional donation needed to meet the budget after considering the donations received from all three booths, we need to subtract the sum of the donations received from the total budget.

Given data:

Total budget = Rs. 1,25,480

Donation received from Donation Booth 1 = Rs. 16,650

Donation received from Donation Booth 2 = Rs. 19,600

Donation received from Donation Booth 3 = Rs. 12,520

Total donations received = Donation Booth 1 + Donation Booth 2 + Donation Booth 3

Total donations received = Rs. 16,650 + Rs. 19,600 + Rs. 12,520

Total donations received = Rs. 48,770

Additional donation needed = Total budget - Total donations received

Additional donation needed = Rs. 1,25,480 - Rs. 48,770

Additional donation needed = Rs. 76,710

The additional donation needed to meet the budget after considering the donations received from all three booths is Rs. 76,710.

99 - d

Given data for Game Stall 2 (Legal Puzzles):

Number of participants = 150

Average money spent per participant = Rs. 19850

If the average money spent per participant at Legal Puzzles is increased by 25%, the new average money spent per participant will be:

New average money spent per participant = Average money spent per participant + (25% of Average money spent per participant)

New average money spent per participant = Rs. 19850 + (0.25 ×Rs. 19850)

New average money spent per participant = Rs. 24812.50

Total money earned from Legal Puzzles = Number of participants × New average money spent per participant

Total money earned from Legal Puzzles = 150 × Rs. 24812.50

Total money earned from Legal Puzzles = Rs. 3,72,1875

The new total money earned from the Legal Puzzles (Game Stall 2) after increasing the average money spent per participant by 25% is Rs. 3,72,1875.

100 - a

Total money spent at Constitution Quiz (Game Stall 1) = Number of participants × Average money spent per participant

Total money spent at Constitution Quiz = 180 ×Rs. 12520.50

Total money spent at Legal Puzzles (Game Stall 2) = Number of participants ×Average money spent per participant

Total money spent at Legal Puzzles = 150 × Rs. 19850

Now, let's calculate the ratio of the total money spent by participants at the Constitution Quiz to the total money spent by participants at the Legal Puzzles:

The total money spent by participants at the Constitution Quiz (Game Stall 1) is 180 × Rs.12520.50 = Rs. 2,253,690.

The total money spent by participants at the Legal Puzzles (Game Stall 2) is 150 × Rs. 19850 = Rs. 2,977,500.

The ratio of the total money spent by participants at the Constitution Quiz (Game Stall 1) to the total money spent by participants at the Legal Puzzles (Game Stall 2) is

Rs. 2,253,690 : Rs. 2,977,500 = 3:4.

101 - b

To calculate the average monthly salary of all five employees, you need to sum up the monthly salaries of all employees and then divide by the total number of employees (which is 5 in this case):

Total monthly salary = Rs.45510 + Rs35410 + Rs55120 + Rs64520 + Rs71150

Total monthly salary = Rs271710

Average monthly salary = Total monthly salary / Total number of employees

Average monthly salary = Rs271710 / 5

Average monthly salary = Rs54,342

The average monthly salary of all five employees is Rs54,342.

102 - b

The ratio of projects completed per month to monthly salary for each employee can be calculated as follows:

Employee 1: (18/6) / Rs45510 = 0.000066

Employee 2: (26/6) / Rs35410 = 0.000122

Employee 3: (21/6) / Rs55120 = 0.000064

Employee 4: (17/6) / Rs64520 = 0.000044

Employee 5: (13/6) / Rs71150 = 0.000031

Employee 2 has the highest ratio of projects completed per month to monthly salary, with a value of 0.000122.

103 - d

To find out which employee would receive the maximum monthly salary after a 26% increase for those who completed more than 10 projects in 6 months, we can calculate the increased salaries for each employee and compare them.

1. Employee 1:

Increased Salary = Rs. 45510 + 0.26 × Rs. 45510 = Rs 57342.6

2. Employee 2:

Increased Salary = Rs. 35410 + 0.26 × Rs. 35410 =. Rs 44616.6

3. Employee 3:

Increased Salary = Rs. 55120 + 0.26 × Rs. 55120 = Rs 69451.2

4. Employee 4:

Increased Salary = Rs. 64520 + 0.26 × Rs. 64520 = Rs 81295.2

5. Employee 5:

Increased Salary = Rs. 71150 + 0.26 × Rs. 71150 = Rs 89649

Among the employees who completed more than 10 projects, Employee 5 would receive the maximum monthly salary after a 26% increase, which is Rs. 89649

104 - d

Employee 3's current average monthly salary = Rs. 55,120

Employee 3 wants to increase their average monthly salary to Rs. 85,510.

Mow , we have to calculate the required total salary for the next 6 months to achieve this target:

Required total salary = Desired average monthly salary ×Number of months

Required total salary = Rs. 85,510 ×6

Required total salary = Rs. 513,060

Employee 3's current total salary for 6 months = Rs. 55,120 ×6 = Rs. 330,720

Additional salary needed = Required total salary - Current total salary

Additional salary needed = Rs. 513,060 - Rs. 330,720

Additional salary needed = Rs. 182,340

Therefore, Employee 3 should have a total salary of Rs. 182,340 for the next 6 months to achieve the target average monthly salary of Rs. 85,510.

105 - c

For Constitutional Commentaries (Category C):

Marked Price per book = Rs. 785

Discount percentage = 29%

Discount per book = Marked Price ×Discount percentage

Discount per book = Rs. 785 ×0.29 = Rs. 227.65

Number of books sold = 81

Total amount of discount given on the sales of Constitutional Commentaries books = Discount per book × Number of books sold

Total amount of discount = Rs. 227.65 ×81 = Rs. 18,439.65

Therefore, the total amount of discount given on the sales of Constitutional Commentaries (Category C) books is Rs. 18,439.65

106 - b

To find the percentage difference in total revenue generated from the sales of Legal Fiction (Category E) books to that of Legal Thrillers (Category A) books, we need to calculate the total revenue for each category and then find the percentage difference.

For Legal Thrillers (Category A):

Marked Price per book = Rs. 455.50

Discount percentage = 21%

Number of books sold = 128

Discount per book = Marked Price ×Discount percentage

Discount per book = Rs. 455.50 ×0.21 = Rs. 95.655

Discounted Price per book = Marked Price - Discount per book

Discounted Price per book = Rs. 455.50 - Rs. 95.655 = Rs. 359.845

Total revenue from Legal Thrillers = Discounted Price per book ×Number of books sold

Total revenue from Legal Thrillers = Rs. 359.845 ×128 = Rs. 46,060.16

For Legal Fiction (Category E):

Marked Price per book = Rs. 1325

Discount percentage = 33%

Number of books sold = 135

Discount per book = Marked Price ×Discount percentage

Discount per book = Rs. 1325 ×0.33 = Rs. 437.25

Discounted Price per book = Marked Price - Discount per book

Discounted Price per book = Rs. 1325 - Rs. 437.25 = Rs. 887.75

Total revenue from Legal Fiction = Discounted Price per book ×Number of books sold

Total revenue from Legal Fiction = Rs. 887.75 ×135 = Rs. 1,19,846.25

Now, let's find the percentage difference in total revenue:

Percentage Difference = [(Total revenue from Legal Fiction - Total revenue from Legal Thrillers) / Total revenue from Legal Thrillers] ×100

Percentage Difference = [(Rs. 1,19,846.25 - Rs. 46,060.16) / Rs. 46,060.16] ×100

Percentage Difference = (Rs. 73,926.11 / Rs. 46,052.64) ×100

Percentage Difference ≈ 160.19 %

The percentage difference in total revenue generated from the sales of Legal Fiction (Category E) books to that of Legal Thrillers (Category A) books is approximately 160.19%.

107 - d

For Category A, the selling price per book is Rs. 455.50 - $(0.21 \times Rs.\ 455.50)$ = Rs. 359.85, and the total revenue is Rs. 359.85 ×128 = Rs. 46060.80.

For Category B, the selling price per book is Rs. 655 - $(0.15 \times Rs.\ 655)$ = Rs. 556.75, and the total revenue is Rs. 556.75 ×96 = Rs. 53448.

For Category C, the selling price per book is Rs. 785 - $(0.29 \times Rs.\ 785)$ = Rs. 557.35, and the total revenue is Rs. 557.35 ×81 = Rs. 45145.35.

For Category D, the selling price per book is Rs. 1150 -$(0.41 \times Rs.\ 1150)$ = Rs. 678.50, and the total revenue is Rs. 678.50 ×117 = Rs. 79384.50.

For Category E, the selling price per book is Rs. 1325 -$(0.33 \times Rs.\ 1325)$ = Rs. 887.75, and the total revenue is Rs. 888.75 ×135 = Rs.119981.25

Comparing the total revenues for each category:

Category A: Rs. 46060.80.

Category B: Rs. 53448.

Category C: Rs. 45145.35.

Category D: Rs. 79384.50.

Category E: Rs. Rs.119981.25

Category E (Legal Fiction) had the highest total revenue during the sale.

108 - d

Let's calculate the total revenue generated from the sale of Category A (Legal Thrillers) and Category B (Case Law Compendiums) books combined.

For Category A (Legal Thrillers):
- Marked Price per book: Rs. 455.50
- Discount percentage: 21%
- Number of books sold: 128

For Category B (Case Law Compendiums):
- Marked Price per book: Rs. 655
- Discount percentage: 15%
- Number of books sold: 96

The revenue from each category can be calculated using the formula:

Revenue = (Marked Price per book - Marked Price per book ×Discount percentage) × Number of books sold

For Category A:
Revenue from Category A = (455.50 -(455.50 × 0.21)) × 128

For Category B:
Revenue from Category B = (655 - (655 × 0.15)) × 96

Total Revenue from Category A and B = Revenue from Category A + Revenue from Category B

Calculate the values:
Revenue from Category A = 359.845 × 128 ≈ Rs. 46060.16
Revenue from Category B = 556.75 × 96 ≈ Rs. 53448

Total Revenue from Category A and B = 46060.16 + 53448 ≈ Rs. 99,508.16

So, the total revenue generated by the bookstore from the sale of Category A and Category B books combined is approximately Rs. 99,508.16

109 - d

To calculate the percentage increase in total sales revenue from 2020 to 2021, we can use the formula:

Percentage Increase = ((New Value - Old Value) / Old Value) × 100

Where:

- Old Value = Total sales revenue in 2020

- New Value = Total sales revenue in 2021

Given the data:

Total sales revenue in 2020 = Rs. 12,55,510

Total sales revenue in 2021 = Rs. 15,75,250

Using the formula:

Percentage Increase = ((15,75,250 - 12,55,510) / 12,55,510) × 100

Percentage Increase = (3,19,740 / 12,55,510) × 100

Percentage Increase ≈ 25.46%

Therefore, the percentage increase in total sales revenue from 2020 to 2021 is approximately 25.46%.

110 - b

If the company's profit margin remained the same in both years, we can calculate the profit in 2021 using the profit margin from 2020.

Profit Margin = $(\frac{Profit}{Total\ Sales\ Revenue)} \times 100$

Given that the profit inD 2020 was Rs. 2,50,610 and the total sales revenue in 2020 was Rs. 12,55,510:

Profit Margin in 2020 = $(\frac{2,50,610}{12,55,510}) \times 100 \approx 19.96\%$

Now, we'll use the profit margin to calculate the profit in 2021. We know the total sales revenue in 2021 is Rs. 15,75,250.

Profit in 2021 = $(\frac{Profit\ Margin\ in\ 2020}{100})$ × Total Sales Revenue in 2021

Profit in 2021 = $(\frac{19.96}{100}) \times 15,75,250 \approx$ Rs. 3,14,419.9

Therefore, the profit in 2021 was approximately Rs. 3,14,419.9

111 - d

To calculate the percentage increase in the sales revenue from smartphones from 2020 to 2021, we can use the formula:

Percentage Increase = ((New Value - Old Value) / Old Value) ×100

Where:

- Old Value = Sales revenue from smartphones in 2020

- New Value = Sales revenue from smartphones in 2021

Given the data:

Sales revenue from smartphones in 2020 = 66% of Rs. 12,55,510

Sales revenue from smartphones in 2021 = 78% of Rs. 15,75,250

Calculating the values:

Sales revenue from smartphones in 2020 = (66 / 100) ×12,55,510 = Rs. 8,28,636.6

Sales revenue from smartphones in 2021 = (78 / 100) ×15,75,250 = Rs. 12,28,695

Using the formula:

Percentage Increase = ((12,28,695 - 8,28636.60) / 8,28,636.60) ×100

Percentage Increase = (3,98,178.40 / 8,29,786.60) ×100

Percentage Increase ≈ 48.27%

Therefore, the percentage increase in the sales revenue from smartphones from 2020 to 2021 is approximately 48.27%.

112 - a

To calculate the sales revenue from smartphones in 2021 considering a decrease of 15% compared to 2020, we can follow these steps:

1. Calculate the sales revenue from smartphones in 2020:

Sales revenue from smartphones in 2020 = 66% of Rs. 12,55,510

Sales revenue from smartphones in 2020 = (66 / 100) ×12,55,510 = Rs. 8,28,636.60

2. Calculate the decrease in sales revenue:

Decrease = 15% of the sales revenue from smartphones in 2020

Decrease = (15 / 100) ×8,28,636.60 = Rs. 124295.49

3. Calculate the sales revenue from smartphones in 2021:

Sales revenue from smartphones in 2021 = Sales revenue from smartphones in 2020 - Decrease

Sales revenue from smartphones in 2021 = 8,28,636.60 - 124295.49= Rs. 7,04,341.11

Therefore, the sales revenue from smartphones in 2021, considering a decrease of 15% compared to 2020, is approximately Rs. 7,04,341.11

113 - d

Total revenue from Brand C = Price per smartphone × Number of units sold

Total revenue from Brand C = Rs. 425100 ×275 = Rs. 116902500

Total revenue from Brand E = Price per smartphone ×Number of units sold

Total revenue from Brand E = Rs. 983650 ×56 = Rs. 55084400

Total revenue from Brand C and Brand E combined = Rs. 116902500+ Rs. 55084400= Rs. 1,71,986,900

Now, the average value of 2 brands = Total revenue from Brand C and Brand E combined / 2

i.e. 1,71,986,900 / 2 = Rs 85993450

114 - c

The total revenue for each brand can be calculated by multiplying the price per smartphone by the number of units sold.

Total revenue for Brand A = 185500× 175 = Rs. 32462500

Total revenue for Brand B = 228600 ×195 = Rs. 44577000

Total revenue for Brand C = 425100 ×275 = Rs. 116902500

Total revenue for Brand D = 647500 ×79 = Rs. 51152500

Total revenue for Brand E = 983650 ×56 = Rs. 55084400

From these calculations, we can see that statement C is true, as the total revenue generated by Brand C (Rs. 116902500) is greater than the combined total revenue of Brand D (Rs. 51132500) and Brand E (Rs. 55084400).

The other statements are false.

115 - d

The total revenue generated by each brand can be calculated by multiplying the price per smartphone by the number of units sold.

Total revenue for Brand A = 185500 × x

Total revenue for Brand B = 228600 × y

Total revenue for Brand C = 425100 × z

Substituting the given values of x, y, and z into the expression, we get:

185500x + 228600y + 425100z =

(185500 ×175) + (228600 ×195) + (425100 ×275) =

32462500 + 44577000 + 116902500

= 193942000

Hence, option D is the correct answer.

116 - c

To estimate the average revenue generated from all the brands, we need to calculate the total revenue from each brand and then find the average revenue by dividing the total revenue by the number of brands.

Let's calculate the total revenue from each brand first:

Total revenue from Brand A = Price per smartphone ×Number of units sold = Rs. 185500 ×175 = Rs. 32,46,2500

Total revenue from Brand B = Price per smartphone ×Number of units sold = Rs. 228600 ×195 = Rs. 44,577,000

Total revenue from Brand C = Price per smartphone ×Number of units sold = Rs. 425100 ×275 = Rs. 11,69,02,500

Total revenue from Brand D = Price per smartphone ×Number of units sold = Rs. 647500 ×79 = Rs. 5,11,52,500

Total revenue from Brand E = Price per smartphone ×Number of units sold = Rs. 983650 ×56 = Rs. 55084400

Now, let's calculate the total revenue from all brands combined:

Total revenue from all brands = Total revenue from Brand A + Total revenue from Brand B + Total revenue from Brand C + Total revenue from Brand D + Total revenue from Brand E

Total revenue from all brands = Rs. 32,46,2500+ Rs. 44,577,000+ Rs. 1,16,90,2500+ Rs.5,11,52,500+ Rs. 55084400= Rs. 300178900

Since there are 5 brands, the average revenue per brand is:

Average revenue per brand = Total revenue from all brands / Number of brands = Rs. 300178900/ 5 = Rs. 60035780

Therefore, the estimated average revenue generated from all the brands is approximately Rs. 60035780

117 - c

To calculate the profit percentage earned on the sale of Product X, we need to use the formula:

Profit Percentage = ((Selling Price - Cost Price) / Cost Price) ×100

Given the data for Product X:

Cost Price (CP): Rs. 125850.50

Selling Price (SP): Rs. 155850.50

Using the formula:

Profit Percentage = ((155850.50 - 125850.50) / 125850.50) ×100

Profit Percentage = (30000 / 125850.50) ×100

Profit Percentage ≈ 23.84%

Therefore, the profit percentage earned on the sale of Product X is approximately 23.84%.

118 - d

To calculate the selling price (SP) of Product Y after the discount on the marked price, we need to first calculate the discount amount and then subtract it from the marked price.

Given the data for Product Y:

Marked Price (MP): Rs. 255620.20

Discount Percentage on MP: 32%

Calculating the discount amount:

Discount Amount = (Discount Percentage / 100) ×Marked Price

Discount Amount = (32 / 100) ×255620.20

Discount Amount = Rs. 81798.464

Subtracting the discount amount from the marked price to get the selling price:

Selling Price (SP) after discount = Marked Price - Discount Amount

Selling Price (SP) after discount = 255620.20 - 81798.464

Selling Price (SP) after discount = Rs. 173821.736

Therefore, the selling price of Product Y after the discount on the marked price is approximately Rs. 173821.736.

119 - d

To calculate the percentage difference between the selling price of Product Y and Product Z, we can use the formula:

Percentage Difference = ((New Value - Old Value) / Old Value) ×100

Given the data for Product Y:

Marked Price (MP): Rs. 255620.20

Discount Percentage on MP: 32%

Selling Price (SP) after discount:?

Given the data for Product Z:

Cost Price (CP): Rs. 825015.50

Profit Percentage: 35%

Selling Price (SP): Rs. ?

Let's calculate the selling price of Product Y after the discount on the marked price:

Discount Amount for Product Y = (Discount Percentage / 100) ×Marked Price

Discount Amount for Product Y = (32 / 100) ×255620.20

Discount Amount for Product Y = Rs. 81798.464

Selling Price (SP) of Product Y after discount = Marked Price - Discount Amount

Selling Price (SP) of Product Y after discount = 255620.20 - 81798.464

Selling Price (SP) of Product Y after discount = Rs. 173821.736

Now, let's calculate the selling price of Product Z using the profit percentage:

Profit Amount for Product Z = (Profit Percentage / 100) ×Cost Price

Profit Amount for Product Z = (35 / 100) ×825015.50

Profit Amount for Product Z = Rs. 288755.425

Selling Price (SP) of Product Z = Cost Price + Profit Amount

Selling Price (SP) of Product Z = 825015.50 + 288257.325

Selling Price (SP) of Product Z = Rs. 1113272.825

Now, let's calculate the percentage difference:

Percentage Difference = ((Selling Price of Product Z - Selling Price of Product Y) / Selling Price of Product Z) ×100

Percentage Difference = ((1113272.825 - 173821.736) / 1113272.825) ×100

Percentage Difference ≈ 84.38%

The negative value indicates a decrease in the selling price of Product Y compared to Product Z.

Therefore, the percentage difference between the selling price of Product Y and Z is approximately 84.38%

120 - d

To calculate the Selling Price (SP) of Product W, we can use the formula:

Selling Price (SP) = Cost Price (CP) + Profit Amount

Given the data for Product W:

Cost Price (CP) = Rs. 1852060.20

Profit Percentage = 45%

Let's calculate the profit amount:

Profit Amount = (Profit Percentage / 100) ×Cost Price

Profit Amount = (45 / 100) ×1852060.20

Profit Amount = Rs. 833427.09

Now, let's calculate the Selling Price (SP):

Selling Price (SP) = Cost Price (CP) + Profit Amount

Selling Price (SP) = 1852060.20 + 833427.09

Selling Price (SP) = Rs. 2685487.29

Therefore, the correct Selling Price (SP) of Product W is: Rs. 2685487.29

CAREERS360

CLAT OTHER USEFUL RESOURCES

We understand that the journey to cracking the Common Law Admission Test (CLAT) can be a challenging one, filled with uncertainties and rigorous preparation. To ease your path to success, we are excited to introduce our comprehensive CLAT eBook Series. These meticulously crafted eBooks are designed to provide you with invaluable resources and insights to boost your preparation. Let's take a closer look at what each eBook in our series has to offer:

1. CLAT Free Sample Paper

Get a taste of the actual CLAT examination with our free sample paper.

Download Here

2. CLAT Mock Test with Solutions eBook

Access a range of mock tests with detailed solutions to help you gauge your progress.

Download Here

3. Know All About CLAT eBook

Gain a comprehensive understanding of CLAT, including its structure, eligibility, and important dates.

Download Here

4. Top 300 Legal Maxims for CLAT Preparation eBook

Enhance your legal knowledge with this eBook, featuring the top 300 legal maxims for CLAT.

Download Here

CAREERS360

5. Know Useful CLAT Preparation Tips from Past Toppers eBook

Learn from the experiences and insights of past CLAT toppers.

Download Here

We believe that these eBooks will serve as valuable companions throughout your CLAT journey. They provide you with essential tools, practice material, and expert tips to help you excel in the CLAT examination. So, don't miss out on this opportunity to supercharge your preparation.Wishing you all the best in your CLAT preparations!

Keep striving for excellence, and success will surely follow.

"Best Wishes."

CAREERS360