2026_PST I_Percentage & profilt and loss_weekly assessment I

Test Summary

- No. of Sections: 2
- No. of Questions: 30
- Total Duration: 60 min

Section 1 - MCQ

Section Summary

- No. of Questions: 20
- Duration: 30 min

Additional Instructions:

None

Q1.   Five percent of the total population of a town are engineer and the rest are Doctors. If the population of the town be 37820, then what is the number of Doctors?

37820

35929

3592

35992

Q2.   Find the percentage error in taking a length of one meter to be 39 inch (Given 1 inch = 2.54 cm)

0.93%

0.94%

0.95%

0.88%

Q3.   The export of certain goods in 1980 exceeds the export in 1979 by 80% in quantity and by 143% in value. Find the percentage increases in the price of a given quantity of goods.

25%

30%

35%

40%

Q4.   What percent of 2/9 is 3/45?

20.5%

10%

20%

30%

Q5.   At a recent examination every candidate took French or Latin, 75.8 percent took French and 49.4 percent took Latin.If the total number of candidates was 2500, then how many took both French and Latin ?

75.8

49.4

630

None of these

Q6.   A reduction of 25% in the price of coffee would enable a purchase to obtain 25 kg more for Rs.45 what is the reduced price per kg?

60 paise

45 paise

40 paise

50 paise

Q7.   If the annual increase in the population of a town is 4 percent and the present number of inhabitants be 5 lakh, then what will it be in three years time?

500000

562432

524632

None of the above

Q8.   The population of a town is 32000. It increases at the rate of 15% annually. What will be the population 2 years hence?

32000

42320

42230

43220

Q9.   The population of the city increases 7% annually from 1920 to 1923 and its population in the 1923 and its population in the 1923 was 8575301.What was its population in 1920?

5575301

7000000

107000

None of these

Q10.   In a mixed school, 20 percent of the scholars are children under 7 and the number of girls above 7 is 2/3 of the numbers of the boys above 7and amounts to 64. Find the numbers of scholars in the school.

160

200

80

168

Q11.   In a examination, a candidate who gets 30% of the maximum marks fails by 100 marks. But another candidate who gets 42% marks gets 20 marks more than necessary marks necessary for passing.

400

250

230

1000

Q12.   A reduction of 40 percent in the price of eggs would enable a purchase to obtain 56 kg more for Rs.10. What is the initial price?

14p

12p

10p

11p

Q13.   A testator bequeathed by will $\frac{2}{5}$ of his estate on his son, 60% of the remainder to his daughter and the remainder to his widow, the son got Rs.750 more than the daughter. How much did the widow receive?

Rs.4500

Rs.18750

Rs.7500

Rs.6750

Q14.   20 m^3 of a liquid consists of 80% by volume of alcohol and the rest is water. If 8 m^3 of the liquid is drawn out and refilled by water, then what is the percentage of the water in the liquid?

45%

46%

48%

52%

Q15.   What will be 60% of a number whose 150% is 120?

Rs.150

Rs.90

Rs.72

Rs.48

Q16.   If the annual increase in the population of a town be 10% and the present population be 13310, then what was it three years ago?

13310

10000

1331

None of these

Q17.   If X exceeds be 50% and Y is 50% less than Z, then what percentage is Z of X ?

25%

75%

100%

133.33%

Q18.   A family spends a constant amount of money on milk each month. If the milk price goes down by 25%, how much will their consumption increase?

22.11%

28.36%

33.33%

35.48%

Q19.   A man ordered four pair of black socks and some pair of brown socks. The price of a black pair is double that of a brown pair. While preparing the bill, the clerk interchanged the numbers of black and brown pairs by mistake which increased the bill by 50%. What was the ratio of the number of black and brown pair of socks in the original order?

4 : 1

4 : 3

3 : 4

1 : 4

Q20.   A glass of juice contains 5% fruit extract, 25% of pulp and rest of water. Find amount of water that should be added in glass of 450 ml juice to reduce pulp concentration to 15%?

225

250

300

229

Section 2 - Fillups

Section Summary
- No. of Questions: 10
- Duration: 30 min

Additional Instructions:
None

Q1.   If the tax on tea is reduced by 10% by how much percent must the consumption increases so that there is an increase of 8% in the revenue?

Q2.   At an election, the candidate who got 56% of the votes cast won by 144 votes. Find the total number of voters on the voting list if 80% people cast their vote and there were no invalid votes.

Q3.   Ten percent of the inhabitants of a town have died of plague, panic set in, during which 25% of the remaining inhabitants left the town if the population was then reduced to 6750, then what was the originally?

Q4.   A's salary is 20% lower than B's salary, which is 15% lower than C's salary. By how much percent is C's salary more than A's salary?

Q5.   A mill shop first gives a commission of 20% on second grade cloth and then further gives a commission of 15% on a share holder's coupon. The total commission on shareholder's coupon will be

Q6.   An alloy contains 24% of tin by weight. How much more tin to the nearest Kg must be added to 100 Kg of the alloy so that the percentage of tin may be doubled?

Q7.   In an examination, 35% candidates failed in one subject and 42% failed in another subject while 15% failed in both the subjects. If 2500 candidates appeared at the examination, how many passed in either subject but not in both?

Q8.   A watch dealer pays 10% custom duty on a watch that costs RS.250 abroad. For how much should he mark it, if he desires to make a profit of 20% after giving a discount of 25% to the buyer?

Q9.   A fruit seller always purchased mangoes in prime number. One particular day he purchased mangoes between 50-60 and gives 4 mangoes to his son. After selling the rest mangoes which was also above 50, he gained a profit which is equal to selling price of 4 mangoes. Find his profit percentage.

Q10.   If toffees are bought at the rate 18 for a rupee, then how many of them must be sold for a rupee to gain 20%?

Answer Key & Solution

Q1

35929

Solution

95% are Doctors => 95% of 37820. = (95/100) × 3.7820 = 35929.

Q2

0.94%

Solution

Given 1 inch = 2.54 cm and 1 m will be 100 cm, i.e., (100 / 2.54) inches => 1 m = 39.37 inches.

The error % = 39.37 − 39/39.37 × 100 = 0.9398% = 0.94%.(approx.)

Q3

35%

Solution

Let the quantity and price of the given goods in 1979 be x and y respectively. Value = Rs.xy.

Now quantity in 1980 = 1.8x and value = 2.43xy.

Price in 1980 = 2.34xy

=> Increase in price = 0.35 or 35%.

Q4

30%

Solution

Required % = $\left[\frac{3/45}{2/9} \times 100\right] = \frac{3}{45} \times \frac{9}{2} \times 100 = 30\%$.

Q5

630

Solution

We have n(A ∪ B) = n(A) + n(B) − n(A ∩ B)

=> 100 = 75.8 + 49.4 − X => X = 25.2% of 2500 = 630.

Q6

45 paise

Solution

Let X be the original price... 45/0.75 X − 45/X = 25 => X = 60 paise. 0.75X = 45 paise.

Q7

562432

Solution

5 lakh × [1 + (4/100)]3 = 562432.

Q8

42320

Solution

Based on formula => 32000 [1 + (15/100)]2 = 42320.

Q9

7000000

Solution

Based on formula. If X is the population in 1920, - then population in 1923 = X × (107/100)3 = 8575301 => X = 7000000.

Q10

200

Solution

If there are X students, then 20X/100 + 64 + 64 × 3/2 = X 80X/100 = 160 => X = 200.

Q11

400

Solution

Let X be the maximum marks. . . 30% of X t 100 = 42% of X − 20

=> 12% of X = 120 X = 1000

Pass marks = 0.3X + 100 = 400.

Q12

12p

Solution

Let the initial price be Rs.x.

Number of eggs = 10/x

=> 10/x−0.4x = 10/x + 56 =>10/0.6x = 10 + 56x/x => 10/0, 6 = 10 + 56x => 10 = 6 + 33.6x => x = Rs. 4/33.6 => Rs. 0.119 = 12p (appox)

Q13

Rs.4500

Solution

Let the property be X. Then 2/5 goes to the son and remainder = 3X/5.

60% of 3X/5 = (60/100) × 3X/5 = 9X/25.

Widow gets 3X/5 − 9X/25 = 6X/25.

=> Son gets 2X/5, daughter gets OX/25, widow gets 6X/25

Now 2X/5 − 9X/25 = 750 => X/25; 750. X = 750 × 25 = Rs. 18750.

=> Widow gets 6X/25 = 6 × 18750/25 = Rs.4500.

Q14

52%

Solution

Original volume of water =20m3 × 20/100 = 4m3.

When 8m3 of the liquid is drawn out, volume of water becomes 4m3 × 20/100 = 2.4 m3

When 8m3 of water are refilled, volume of water becomes 2.4m3 + 8m3 = 10.4m3.

The required percentage of water = 10.4 × 100 = 52%.

Q15

Rs.48

Solution

Let the number be x. 150% of x = 120

Or 150/100 x = 120 => x = 80

Now 60% of 80 = 60/100 × 80 = 48.

Q16

10000

Solution

Based on formula X (1 + (10/100)]3 = 13310 => X = 10000.

Q17

133.33%

Solution

Let Z be A, then Y = 0.5A. X = (1.5) × (0.5)A = 0.75A => Z is A/0.75A × 100 = 133⅓ % of X.

Q18

33.33%

Solution

Let Q be the consumption and R be the rate

Amount A = Q x R

Milk price decreases by 25%. then new Rate be S,

A = 0.75Q x S

Q x R = 0.75Q x S

R = 0.75S

S = R/0.75 = 133.33%

So, Consumption increases by 33.33%

Q19

1 : 4

Solution

Suppose the man ordered X pair of brown socks costing Rs. Y per pair.

Then the price of black socks = Rs. 2Y per pair

[2Y x 4 + YX] + 50% of (8Y + XY) = Y x 4 + 2Y x X i.e. X = 16

So ratio of black and brown is 4:16, i.e. 1:4

Q20

300

Solution

Juice of 450 ml contains 5% fruit extract, 25% of pulp.

Amount of pulp = 450 × 25/100 = 112.5 ml

Now, let the amount of water added be 'x' ml.

Total volume of juice after adding water = 450 + x

New percentage of pulp = 15%

According to the question

⇒ (450 + x) × 15/100 = 112.5

⇒ (450 + x) = 750

∴ x = 300 ml

Section 2 - Fillups

Q1

20%

Solution

Q2

1500

Solution

Q3

10000

Solution

Q4

32 × 100/68

Q5   32%

Solution

Q6   46

Solution

Q7   1175

Solution

Q8   Rs.440

Solution

Q9   15.7%

Solution

Q10   15

Solution