Profit and Loss for Railway Exams

Profit and Loss for Railway NTPC Stage-I Exams

1) The cost price of 15 articles is equal to the selling price of 20 articles. Then the profit or loss percentage is-

a) 50

b) 20

c) 25

d) 33.33

2) In Spar hypermarket during Durga puja there was an offer buy 3 get 2 free. But due to lack of sale, an additional discount of 16.67 % was offered. If a person buys this product find the net discount he gets?

a) 45%

b) 50%

c) 60%

d) 40%

3) The metallic gauge of a plastic wire dealer expands by 40% in the summer. To counter this he marks up his price 60%. Then find his profit percentage?

a) 14.28

b) 28.56

c) 7.14

d) 3.57

4) Mr.Matthew marks up his goods by 20% and then uses a faulty weight of 300gm in place of 500gm, and then gives a discount of 50% to his customers. What is his profit or loss %?

a) 100%

b) 75%

c) No profit no loss

d) 25%

5) The cost of 4 markers and 3 pencils is Rs 113 and the cost of 7 markers and 4 pencils is Rs 184. Find the cost of 2 Markers and 1 pencil?

a) 92

b) 56

c) 51

d) 41

6) A person has bought some candies at the rate of 6 per rupee and the same number at the rate of 4 per rupee. He mistakenly mixed both of them and sold this mixture at the rate of 8 per rupees. In this transaction he incurred a loss of Rs 24. Then find the number of candies bought by him?

a) 192

b) 144

c) 288

d) 180

7) The profit is 300% of the cost price. If the cost increases by 25% but the selling price remains constant, approximately profit is what percentage of the selling price?

a) 67%

b) 63.5%

c) 68.75%

d) 65%

8) Anuj purchased one dozen pencils for Rs. 60 .Pack them into boxes with three pencils in each box and sold boxes for 18 each. Find her profit percentage?

a) 20 %.

b) 25 %.

c) 16 ⅔ %

d) 33 ⅓ %

9) The difference in selling price of an article at a profit of 8% and 10% is Rs. 3. What will be the selling price when the profit is 8%?

a) Rs.162

b) RS.165

c) Rs.150

d) Rs.145

10) A wholesaler purchased 14 balloons for Rs.2. How many balloons he must sell for a rupee to get a profit of 40 %?

a) 6

b) 5

c) 4

d) 3

11) Dhanush sold a pen at Rs. 36 with a profit of 20% if it were sold at Rs. 33 than what could be percentage of profit and loss?

a) 10% profit

b) 12 % loss

c) 12 %profit

d) 18 % loss

12) A shopkeeper buys some number of articles at the rate of 12 for Rs.15 and sold them at the rate of 10 for Rs.14. Then the profit / loss percentage is-

a) 16

b) 12

c) 15

d) 18

13) A shopkeeper cheats to the extent of 11 % while buying and selling rice. What is his total gain percentage?

a) 24.46 %

b) 23.21 %

c) 26.24 %

d) 22 %

14) By selling 156 books a shopkeeper incurs a loss is equal to selling price of 12 books. Find his loss percentage?

a) 7 1/7 %

b) 14 1/7 %

c) 7 1/13 %

d) 14 1/13%

15) When the profit is calculated on cost price it is 25% of cost price. Then find the percent of profit, when calculated on selling price?

a) 25%

b) 23 ½ %

c) 20%

d) 16 2/3 %

16) A shopkeeper sold an article at loss of 7% if he had sold it at Rs. 64 more then he got the profit of 9% the cost price of the article is-

a) 300

b) 400

c) 500

d) 600

17) An article was sold for Rs 3600 at a discount of 10%. Find the selling price if the discount was 15%?

a) 3600

b) 3800

c) 4000

d) 3400

18) Ranjit sold a dozen of watches for Rs59.25 per watch and made a profit of 25%. Find the cost price of the watches?

a) 476

b) 586.8

c) 568.8

d) 566.8

19) A farmer purchased a piece of land for Rs 16.5 lakh and spent Rs. 50,000 on registration. He sold it for Rs 21 lakhs. Find his profit in percentage?

a) 57.12

b) 23.53

c) 48.6

d) 20.56

20) A shopkeeper sold an article at loss of 9 % if he had sold it at 51 rupees more then he got the profit of 8 %, then the selling price of the article if it is sold at 25% profit is-

a) 425

b) 360

c) 400

d) 375

21) A shopkeeper purchased some number of articles at the rate of 4 for Rs.3 and the same number of articles at the rate of 3 Rs.2 and sold all the articles at the rate of 3 for Rs.5 then the profit or loss percentage is-

a) 35.29

b) 135.29

c) 130

d) 235.29

22) A shopkeeper sells some number of articles at the cost price but he uses less weight , he uses 800gm in place of 1000gm then the profit percentage is -

a) 20

b) 25

c) 10

d) 15

23) A shopkeeper losses 20% by selling 60 toffees for Rs 50. How many toffees should he sells for Rs 25 to gain 20%?

a) 30

b) 25

c) 20

d) 22

24) A shopkeeper sells an item at the profit of 120% of the cost. If the cost price increases by 10% but the selling price remains constant, approximately what percentage of the selling price is the profit?

a) 50%

b) 70%

c) 55 %

d) 60%

25) In what ratio must water be mixed with milk to gain 10% by selling the mixture at cost price?

a) 1 : 11

b) 1 : 10

c) 10 : 1

d) 11 : 1

26) A shopkeeper sells an article at the profit of 50% if he had purchased it at 20% less then cost price and sold it at 60 rupees less then cost price in the way he get the profit of 50% Find the Cost price

a) 500

b) 400

c) 200

d) 800

27) A shopkeeper purchase two articles for rupees 2100 he sold one at 10% loss and other at 20% profit and selling price of both the article is equal. Find the cost price of first article?

a) 1200

b) 900

c) 600

d) 1500

28) Radha sold a home decorate at 8 % profit had it been sold for Rs. 48 more, the gain would have been gain 16%. Find the cost price of the purse?

a) Rs.400

b) Rs.200

c) Rs.600

d) Rs.300

29) Price of 42 bananas is Rs. 63. Find the cost price of 9 dozen bananas?

a) Rs. 135

b) Rs. 162

c) Rs. 84

d) Rs. 49

30) How much percentage of the cost price should be increased so that the shopkeeper mark his good so that after giving a discount of 10% on marked price he still gain 17% ?

a) 30%

b) 27%

c) 20%

d) 17%

31) A shopkeeper sold an article at the profit of 20% on selling price, the actual profit percentage

a) 25

b) 20

c) 15

d) 30

32) Apurv bought a mobile at 15 % discount on marked price he should it at 4625 with 25 % profit on marked price. At what price did he buy the mobile?

a) Rs. 3700

b) Rs. 3165

c) Rs.3145

d) Rs. 3265

33) A shopkeeper sold an article at the profit of 25 % on cost price, the profit percentage on selling price is -

a) 20

b) 25

c) 16 2/3

d) 30

34) A shopkeeper sold an article at the profit of 50 % on Cost Price, the 25% of profit percentage on Selling Price is -

a) 20

b) 25/3

c) 16 2/3

d) 30

35) A shopkeeper sold an article at the loss of 25 % on Cost Price, the profit /loss percentage on Selling Price is -

a) 20

b) 100/3

c) 16 2/3

d) 30

36) Total cost price of two books is 658. If one is sold at 20 % profit and other sold at 15% loss there is no profit no loss in whole transaction. Find the selling price of book which is sold at profit?

a) Rs. 282

b) Rs. 338. 4

c) Rs.376

d) Rs. 319.6

37) The selling price of an article is 5/4 of cost price, the profit % is -

a) 20

b) 25

c) 10

d) 30

38) The selling price of an article is 3/4 of cost price, the loss % is -

a) 20

b) 25

c) 10

d) 30

39) The selling price of an article is 11/4 of cost price; if cost price is 100 then amount of profit is -

a) 200

b) 250

c) 175

d) 300

40) A man sells one fifth of his goods at 50% profit and the remaining at 10% loss. Find his total profit/loss percentage.

a) No profit/loss

b) 5%, profit

c) 10%, profit

d) 2%, profit

41) The cost price of two articles is same. One article sold at 10% loss while other sold at 10% profit, the net profit and loss in percentage is -

a) 1%

b) 0%

c) 21

d) 20

42) On an article the profit is 250% of the cost price. If the cost price increases by 25% but the selling price remains constant, then what is the new profit percentage?

a) 150

b) 250

c) 260

d) 180

43) A man sells an item for Rs. 2400 at 10% discount. For how much does he need to sell 2 items to gain 5 %?

a) 5400

b) 4900

c) 5200

d) 5600

44) Rahul sells his half of the products at the rate of 20% discount on marked price and 1/4th of the products were sold out 10% on marked price, remaining products were sold out on the marked price, in the way he earned a profit of 75% of cost price per product. Find the total number of products.

a) 25

b) 30

c) 10

d) Cannot be determine

45) The cost of a radio is Rs. 2400. It is sold at two successive discounts one of which is 15%. If the final price is Rs. 1876.8, find the second discount.

a) 10%

b) 8%

c) 6%

d) 5.5%

46) The difference between the selling prices of an article sold at 4% and 3% profits is 3. Find the cost price of the article.

a) 400

b) 350

c) 300

d) 100

47) The selling price of two articles is 840. One article sold at 40% profit while other sold at 40% Loss, the total cost price is -

a) 1000

b) 2000

c) 1200

d) 1680

48) A shopkeeper bought two articles of a total of RS. 2665. And sold one at a profit of 25% and another at a loss of 20%. If selling price of both the article is same then find difference between the cost prices of both the articles?

a) 550

b) 525

c) 585

d) 520

49) A shopkeeper sold an article at 5% gain if he had sold it at 3 times the original selling price then profit percentage will be-

a) 315

b) 215

c) 300

d) 115

50) A shopkeeper sold an article at 20% gain if he had sold it at 1/4 times the original selling price then loss percentage will be-

a) 30

b) 40

c) 70

d) 60

ANSWERS

1) Answer: C

It is given that cost price (cost price) of 15 articles is equal to the selling price (Selling price) of 20 articles –

⇒ 15 cost price = 20 selling price

⇒ Selling price/cost price = 3/4

Here cost price is greater than the selling price so there will be loss by selling the articles

Loss %= (cost price-selling price / cost price) ×100

The loss percentage is = 1/4 ×100 = 25%

Hence option C is correct.

2) Answer: B

Buy 3 get 2 free will be equal to a discount of 40%

(The shopkeeper will pay for 5 pieces but give away 2 free hence discount%

= 2/5 × 100 = 40%)

Now successive discount formulae if there are two successive discounts of x and y%

= – x – y + xy/100

= - 40 – 16.67 + (16.67×40/100) = 50%

3) Answer: A

The dealer actually wants to give 100cm wire but due to expansion ends on giving 140cm wire.

Let us consider 1 cm wire cost him Rs 1, because when customer asks for 100cm wire he gives 140cm due to expansion in gauge. His CP will be RS 140.

But from the customer point of view, will customer give him Rs 140, no because he has asked for 100 cm, he will give the price for 100cm,.

Hence for both the dealer and the customer this will be the agreed price .But dealer needs a profit hence considering this as Cost Price

I.e. he will now set up mark-up % of 60% upon this Price. Hence now he will sell it for Rs 160.

Hence profit= 160 – 140 = Rs 20.

Profit % = 20/140×100= 14.28%

4) Answer: C

Let his Cost Price be 100

Then Marked Price = 120

Due to faulty weight his price will be 120×500/300 = 200.

Upon this he will give 50% discount.

Then Selling Price = 200/2 = 100

There is no profit or loss.

5) Answer: C

4M + 3P = 113 ---------- (1)

7M+4P = 184 ---------- (2)

Solving (1) & (2)

Cost of Marker = Rs. 20

Cost of Pencil = Rs. 11

Hence 2 markers and 1 pencil cost Rs. 51

6) Answer: C

Let the person brings 48 candies of first type and 48 candies of 2nd type

Total cost of both the candies= 48/6 + 48/4 = Rs 20

But if sells them at 8 per rupee then selling price = 96/8 = 12

Loss = 20 – 12 = Rs 8

But in question loss is Rs 24

Which is 3 times the price hence he must have bought 3 times the quantity of candies.

= 96 × 3 = 288

7) Answer: C

Let Cost Price = 100

Profit = 300

Selling Price = 400

New Cost Price = 125

Profit = 400 -125 = 275

Required profit % = 275/400 x 100

= 275/4 = 68.75

8) Answer: A

Cost price of 12 pencil = Rs. 60

Number of total boxes = 12/3 = 4

Selling price of 4 boxes = 18 × 4 = 72

Profit percentage = (72 – 60)/60 x 100

= 12/60 × 100 =20 %

9) Answer: A

10 %Cost Price – 8% of Cost Price = 3

2% Cost Price = 3

2/100 Cost Price = 3

Cost Price = 150

So SP at 8 % Profit = 108 ×150/100 = Rs.162

10) Answer: B

Cost Price of a balloon = 2/14 =1/7 rs

Selling Price = 140/100 x1/7 =1/5 Rs

So balloons sold for a rupee = 5

11) Answer: A

120 Cost Price/100 =36

Cost Price =30

Selling Price=33

% profit = (33-30)/30 x 100

= 3/30*100 = 10% Profit

12) Answer: B

Making the article number of articles same

	Article	price
Cost price	(12	15) × 10 = 150
Selling price	(10	14) ×12 = 168

Hence cost price= 150 and selling price = 168

Here selling price > cost price so there will be profit on selling the articles

Profit % = (selling price – cost price)/ cost price ×100

= (168 -150)/150 ×100 = 12%

Hence option B is correct.

13) Answer: B

Total gain percentage = x+ y + xy/100

Required profit = 11 + 11 + 1.21 = 23.21%

14) Answer: A

156(CP – SP) = 12 SP

156 CP = 168 SP

CP/SP = 168/156

CP/SP = 14/13

Loss = 1/14 x 100 = 50/7 = 7 1/7%

15) Answer: C

Cost Price =100

Selling Price =125

% profit when calculated on SP= [(125-100)/125] x 100

= (25/125)x 100 =20%

16) Answer: B

Let 100x be the cost price of article

If it sold at 7 % loss so the selling price$_1$ will be = 93x

And it had sold at 9% profit the selling price$_2$ will be = 109x

It is given that the difference of both the selling price = 64 rupees

⇒ 109x – 93x = 64

⇒16x = 64

⇒x = 4

So the cost price will be = 100×4 = 400 rupees

Hence option B is correct.

17) Answer: D

Let Marked Price=X

(90/100)*X=3600

X=4000

Marked Price=4000

If the discount was 15%

Selling price=(85/100)*4000=3400

18) Answer: C

The cost price of the watch =59.25/125 ×100 = 47.4

Now the cost of 12 watches = 12×47.4 = 568.8

19) Answer: B

Total cost of plot = 16.5 lakhs + 50 thousand = 17 lakhs

Gain = 4 lakhs

Hence profit% = 4/17x100 = 23.53%

20) Answer: D

Let 100x be the cost price of article

If it sold at 9 % loss so the selling price$_1$ will be = 91x

And it had sold at 8% profit the selling price$_2$ will be = 108x

It is given that the difference of both the selling price = 51 rupees

⇒ 108x – 91x = 51

⇒17x = 51

⇒x = 3

So the cost price will be = 100×3 = 300 rupees

If this sold at 25% profit then the selling price= 125% of cost price

Selling price=125% of 300= 375

Hence option D is correct.

21) Answer: B

Making the article number of articles same

	Article	price
Cost price	(4	3) × 3 =9
	(3	2) × 4 = 8

Hence total number of articles = 24 and their cost price = 17

Selling price (3 5) × 8 = 40

Hence cost price= 17 and selling price = 40

Here selling price > cost price so there will be profit on selling the articles

Profit % = (selling price – cost price)/ cost price ×100

= (40-17)/17 ×100 = 135.29 %

Hence option B is correct.

22) Answer: B

Profit percentage= (difference of weight / false weight) ×100

= (1000-800) / 800 ×100

= 25%

Hence option B is correct.

23) Answer: C

SP 0f 60 toffees = Rs. 50

SP 1 toffee = 50/60 =5/6

CP of 1 toffee = 5/6 × 100/80 = 25/24

SP When 20 % profit = = 25/24 × 120/100 = 1.25

So No. of toffees he should sell for Rs. 25 = 25/1.25 = 20

24) Answer: A

CP =100

SP = 100 + 120 = 220

If CP increase by 10 % new CP = 110

Profit = 220 -110 = 110

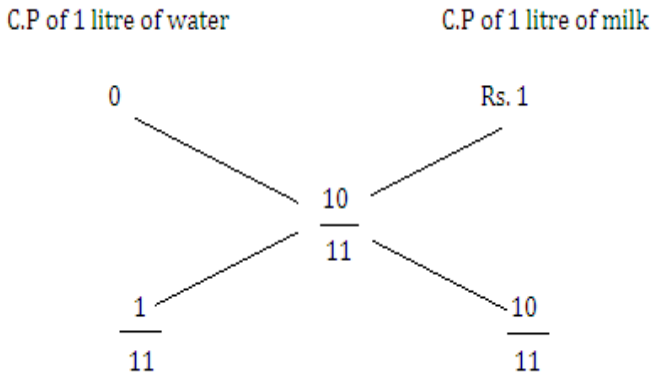
Required % = 110/220 × 100 = 50%

25) Answer: B

CP of milk = Rs. 1 /liter

SP of 1 liter of mixture = Rs. 1 when profit 10%

C.P of 1 liter mixture= 100/110 = Rs. 10/11



Required Ratio = 1 : 10

26) **Answer: C**

Let the cost price of the article is 100x

If this article is sold at 50% profit so the selling price1 = 150x

If the same article is purchased at 20% less so the cost price will be = 80x and if this article is sold at 50% profit so the selling price2= 150% of 80x = 120x

It is given that the difference of both the selling price = 60

⇒ 150x – 120x = 60

⇒ 30x = 60

⇒ x= 2

100x = 2× 100 = 200

cost price = 200

27) **Answer: A**

We know that – selling price = (100± P/L) /100 × cost price

Let P1 and P2 are the cost prices of both the articles and their selling prices are same therefore-

C1 × 90/100 = C2 × 120/100

C1 :C2 = 4:3

So C1 = 4/7 × 2100= 1200

C2 = 3/7 × 2100 = 900

Hence option A is correct.

28) Answer: C

(16 – 8)% of CP = Rs.48

8/100 × CP = 48

CP = Rs.600

29) Answer: B

Cost price of 1 banana = 63/42 = Rs. 1.5

9 dozen banana = 9 x 12 = 108 banana

Cost price of 108 banana = 108 x 1.5 = 162 Rs.

30) Answer: A

CP= Rs. 100

90/(100) x MP = 117

MP = 130

So required % = 130 -100 =30%

31) Answer: A

20% = 1/5

It means if selling price = 5 rupees, then profit = 1 rupees

This profit is calculated on the selling price

Hence cost price = Selling Price – Profit = 5-1 = 4

So the actual profit percentage = profit / cost price ×100

⇒ ¼ ×100 = 25%

Hence option A is correct.

32) Answer: C

125 /100 MP = 4625

Marked Price = 3700

Cost Price of mobile for Apurv = 85/100 × 3700 = Rs.3145

33) Answer: A

25% = 1/4

It means if cost price = 4 rupees, then profit = 1 rupees

This profit is calculated on the cost price

Hence selling price = Cost Price + PROFIT = 4+1 = 5

So the profit percentage on selling price = profit / selling price ×100

⇒1/5 ×100 = 20%

Hence option A is correct.

34) Answer: B

50% = 1/2

It means if cost price = 2 rupees, then profit = 1 rupees

This profit is calculated on the cost price

Hence selling price = Cost Price + Profit = 2+1 = 3

So the profit percentage on selling price = profit / selling price ×100

⇒1/3 ×100 = 100/3

25% of profit percentage on selling price= ¼ ×100/3 = 25/3 = 8.33

Hence option B is correct.

35) Answer: B

25% = 1/4

It means if cost price = 4 rupees, then loss = 1 rupees

This loss is calculated on the Cost Price

Hence selling price = Cost Price - loss = 4 – 1= 3

So the loss percentage on Selling Price = loss / selling price ×100

⇒1/3 ×100 = 100/3

Hence option B is correct.

36) Answer: B

Profit		loss
+20%		-15%
	0%	
15		20
3	:	4

Ratio of CP = 3 : 4

So CP of book which is sold at profit = 3/7 ×658 = 282

SP at 20 % profit = 120/100 ×282 = Rs. 338. 4

37) Answer: B

Selling price= 5/4 cost price

Selling price: cost price = 5:4

So the profit = 5 -4 = 1

Profit % = 1/4× 100 = 25%

Hence option B is correct.

38) Answer: B

Selling price= 3/4 cost price

Selling price: cost price = 3:4

So the loss = cost price-selling price = 4-3 = 1

Loss % = 1/4× 100 = 25%

Hence option B is correct.

39) Answer: C

Selling price= 11/4 cost price

Selling price: cost price = 11:4

Selling price/ cost price = 11/4 ⇒ selling price/100 = 11/4

Selling price = 11× 25 = 275

So the profit = selling price-cost price = 275 -100 = 175

Hence option C is correct.

40) Answer: D

Let the whole goods be worth x

CP of 1/5th of goods=x/5

SP of 1/5th of goods=1.5×x/5 = 0.3x

CP of Remaining goods = 4x/5

SP of them = 0.9×4x/5 = 0.72x

Total SP=1.02x

CP = 1x

So, profit=2%

41) Answer: B

Let the cost price of the articles be 100 rupees

The total cost price of both the articles = 200

One sold at 10% loss so the selling price of first article = 90% of 100 = 90 rupee

Another sold at 10 % profit so the selling price of second article = 110% of 100 = 110

The total selling price of both the articles is = 110+ 90= 200

The total selling price = total cost price

Hence 0% profit

Option B is correct.

42) Answer: D

Let Cost price = x

Profit = 250% of x = 2.5x

Selling price = 3.5x

Increased cost price = 25% of x = 1.25x

Selling price = 3.50x

Profit = 2.25x

Profit % = (2.25x/1.25)*100 = 180%

43) Answer: D

Let CP for man be x

SP = 0.9x = 2400

x = 8000/3

For 5% profit, SP = 1.05 × 8000/3

= 2800

SP of 2 items = 2800 × 2 = 5600

44) Answer: D

There should not be given clear data about cost of price. So we cannot come to conclusion about the price or product details.

45) Answer: B

Cost =2400

For first discount, price = 0.85× 2400 =2040

Final price = 1876.8

Discount % = (2040 – 1876.8) ×100/2040 = 16320/2040 = 8%

46) Answer: C

Let CP be X

At 4% profit, SP = 1.04x

At 3% profit, SP = 1.03x

Difference = 3

0.01x = 3

X = 300

47) Answer: B

The net profit /loss = (±X±Y± XY/100)

Here +sign is use for profit, -sign is use for loss

The net profit / loss = +40 -40 - (40×40/100) = -16%

So the net loss = 16%

We know that selling price = (100±X) cost price/100

⇒selling price = (100-16) cost price/100

⇒1680= 84cost price /100

⇒cost price = 2000

Hence option B is correct.

48) Answer: C

Let the cost price of first article is Rs. X

So, Cost price of another article is (2665-X)

According to question,

X x 125% = (2665- X) 80%

125X = 2665 x 80- 80X

205X = 2665 x 80 = 1040

X=1040

So, cost price of another article = 2665-1040 = 1625

Required difference = 1625 - 1040 = 585

49) Answer: B

Let the cost price of the article is 100 rupees

So the original selling price = 105% of 100 = 105 rupees

If he sold it at 3 times the original selling price so the new selling price will be

⇒3× 105 = 315 rupees

So the new profit = 315- 100= 215 rupees

New profit % = 215/100 ×100 = 215%

Hence option B is correct.

50) Answer: B

Let the cost price of the article is 100 rupees

So the original selling price = 120% of 100 = 120rupees

If he sold it at 1/4 times the original selling price so the new selling price will be

⇒1/4× 120 = 30 rupees

So the loss = 100- 30= 70 rupees

Loss % = 70/100 ×100 = 70%

Hence option C is correct.