CDS-AFCAT 1 2025

SSBCrack EXAMS

LIVE

MATHS

PROFIT & LOSS

MCQS

NAVJYOTI SIR

22 Jan 2025 Live Classes Schedule

9:00AM	22 JANUARY 2025 DAILY DEFENCE UPDATES	DIVYANSHU SIR
10:00AM	22 JANUARY 2025 DAILY CURRENT AFFAIRS	RUBY MA'AM

SSB INTERVIEW LIVE CLASSES

9:30AM	OVERVIEW OF GPE & PRACTICE	ANURADHA MA'AM

AFCAT 1 2025 LIVE CLASSES

12:30PM	REASONING - VERBAL CLASSIFICATION	RUBY MA'AM
3:00PM	STATIC GK - SCIENCE & TECHNOLOGY	DIVYANSHU SIR
4:30PM	ENGLISH - SPOTTING ERRORS - CLASS 3	ANURADHA MA'AM
5:30PM	MATHS - PROFIT & LOSS	NAVJYOTI SIR

NDA 1 2025 LIVE CLASSES

10:00AM	MATHS - SETS, RELATION AND FUNCTION - CLASS 2	NAVJYOTI SIR
11:30AM	ANCIENT HISTORY - CLASS 2	RUBY MA'AM
1:00PM	PHYSICS - REFLECTION OF LIGHT	NAVJYOTI SIR
4:30PM	ENGLISH - SPOTTING ERRORS - CLASS 3	ANURADHA MA'AM

CDS 1 2025 LIVE CLASSES

11:30AM	ANCIENT HISTORY - CLASS 2	RUBY MA'AM
1:00PM	PHYSICS - REFLECTION OF LIGHT	NAVJYOTI SIR
4:30PM	ENGLISH - SPOTTING ERRORS - CLASS 3	ANURADHA MA'AM
5:30PM	MATHS - PROFIT & LOSS	NAVJYOTI SIR

A trader gives successive discounts of 20%, 10% and 5% respectively.

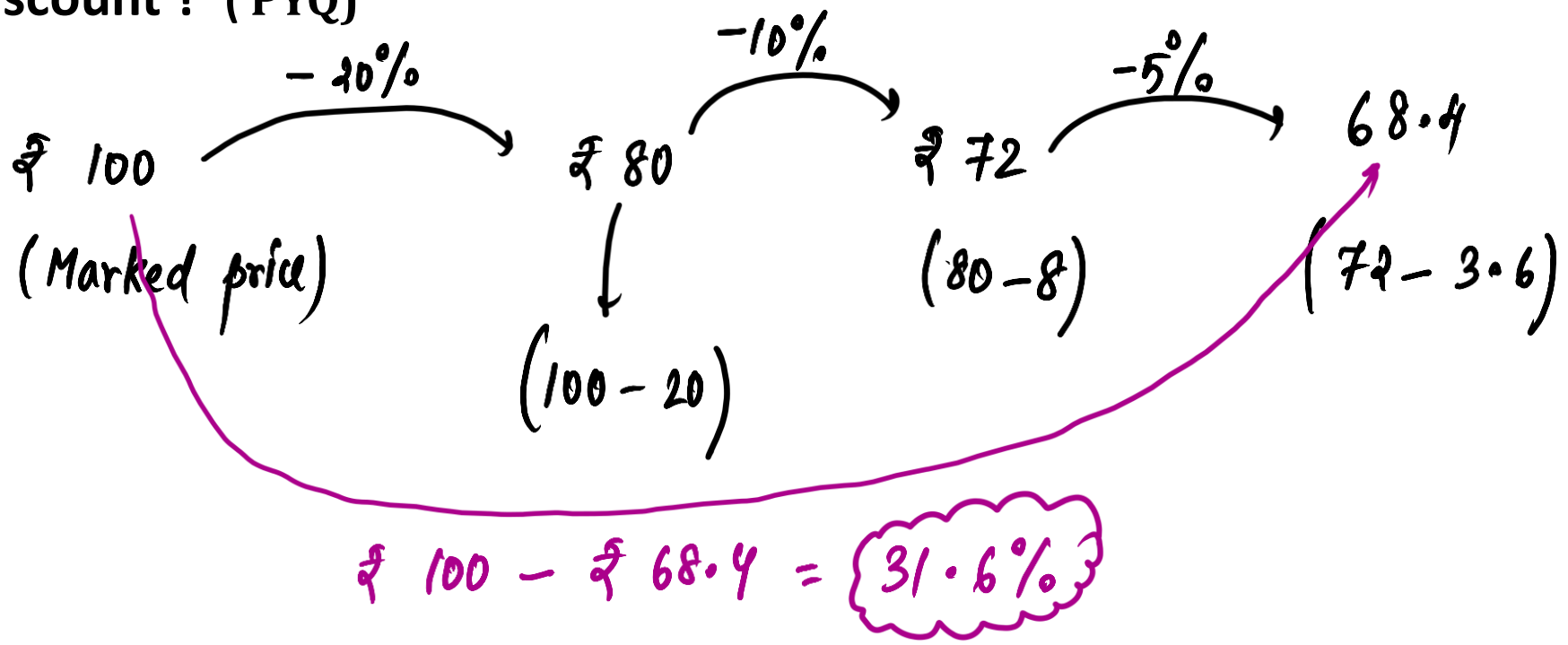
What is his overall discount ? (PYQ)

A. 30 %

B. 31.6%

C. 32.8%

D. 35%



A trader gives successive discounts of 20%, 10% and 5% respectively. What is his overall discount ? (PYQ)

A. 30 %

B. 31.6%

C. 32.8%

D. 35%

Q) A shopkeeper sells his articles at their cost price but uses a faulty balance which reads 1000g for 800g. What is his actual profit percentage ?

(a) 25%
(b) 20%
(c) 40%
(d) 30%

(SP) (CP)

$$\frac{1000 - 800}{800} \times 100 =$$

$$\frac{1}{4} \times 100 = 25\%$$

Q) A shopkeeper sells his articles at their cost price but uses a faulty balance which reads 1000g for 800g. What is his actual profit percentage ?

(a) 25%
(b) 20%
(c) 40%
(d) 30%

Ans: (a)

Q) Two lots of onions with equal quantity, one costing ₹ 10 per kg and the other costing ₹15 per kg, are mixed together and whole lot is sold at ₹ 15 per kg. What is the profit or loss?

(a) 10% loss
(b) 10% profit
(c) 20% profit
(d) 20% loss

Let each lot contain x kg of onion.

$CP = 10x + 15x = 25x$

$SP = 15(x + x) = 30x$

$SP > CP \Rightarrow$ profit

$$\% = \frac{SP - CP}{CP} \times 100 = \frac{5x}{25x} \times 100 = \frac{1}{5} \times 100 = 20\% \text{ profit}$$

Q) Two lots of onions with equal quantity, one costing ₹ 10 per kg and the other costing ₹15 per kg, are mixed together and whole lot is sold at ₹ 15 per kg. What is the profit or loss?

(a) 10% loss
(b) 10% profit
(c) 20% profit
(d) 20% loss

Ans: (c)

Q) A milk vendor bought 28 *l* of milk at the cost of ₹ 8.50 per *l*. After adding some water, he sold the mixture at the same price. If he gains 12.5%, how much water did he add?

(a) 5.5 *l* (b) 4.5 *l*
(c) 3.5 *l* (d) 2.5 *l*

x l

$SP = (28 + x)\,8.50$

$CP = 28 \times 8.50$

$\text{profit \%} = \frac{SP - CP}{CP} \times 100 = \frac{x \times 8.50}{28 \times 8.50} \times 100$

$12.5 = \frac{x}{28} \times 100 \Rightarrow x = \frac{12.5 \times 28}{100} = 3.5\,l$

Q) A milk vendor bought 28 *l* of milk at the cost of ₹ 8.50 per *l*. After adding some water, he sold the mixture at the same price. If he gains 12.5%, how much water did he add?

(a) 5.5 *l*
(b) 4.5 *l*
(c) 3.5 *l*
(d) 2.5 *l*

Ans: (c)

Q) A man buys 4 tables and 5 chairs for ₹ 1000. If he sells the tables at 10% profit and chairs 20% profit, he earns a profit of ₹ 120. What is the cost of one table?

(a) ₹ 200 (b) ₹ 220
(c) ₹ 240 (d) ₹ 260

₹x

cost of 1 chair = ₹y

$CP = 4x + 5y = 1000$ —(1)

profit = SP − CP

$SP = 4x\left(1+\frac{10}{100}\right) + 5y\left(1+\frac{20}{100}\right)$

$= \frac{44}{10}x + 6y = \frac{22}{5}x + 6y = \frac{22x+30y}{5}$

$120 = \frac{22x+30y}{5} - (4x+5y)$

$120 = \frac{2x+5y}{5}$ —(2)

$$4x + 5y = 1000$$

$$2x + 5y = 600$$

$$(-) \quad (-) \quad (-)$$

$$2x = 400$$

$$x = 200$$

Q) A man buys 4 tables and 5 chairs for ₹ 1000. If he sells the tables at 10% profit and chairs 20% profit, he earns a profit of ₹ 120. What is the cost of one table?

(a) ₹ 200
(b) ₹ 220
(c) ₹ 240
(d) ₹ 260

Ans: (a)

The cost price of 100 mangoes is equal to the selling price of 80 mangoes. What is the profit percentage ? (PYQ – 2021)

A. 16 %

B. 20 %

C. 24 %

D. 25%

100 × CP of 1 mango = 80 × SP of 1 mango

$\frac{CP}{SP}$ (for 1 mango) $= \frac{80}{100} = \frac{4}{5}$

$\frac{4}{5}$ → difference = 1 (profit)

$\frac{1}{4} \times 100 = 25\%$ profit %

The cost price of 100 mangoes is equal to the selling price of 80 mangoes. What is the profit percentage ? (PYQ – 2021)

A. 16 %

B. 20 %

C. 24 %

D. 25%

Q) A trader marked a watch 40% above the cost price and then gave a discount of 10%. He made a net profit of ₹ 468 after paying a tax of 10% on the gross profit. What is the cost price of the watch?

(a) ₹1200 (b) ₹1800 (c) ₹2000 (d) ₹2340

CP

$MP = CP\left(1+\frac{40}{100}\right) = \frac{7}{5}CP$

$SP = \frac{7}{5}CP\left(1-\frac{10}{100}\right) = \frac{7}{5}\times\frac{9}{10}CP = \frac{63}{50}CP$

Gross profit = SP − CP

$= \frac{63}{50}CP - CP = \frac{13}{50}CP$

$\frac{13}{50}CP\left(1-\frac{10}{100}\right) = 468$

$CP = \frac{468\times10\times50}{9\times13} = 2000$

Q) A trader marked a watch 40% above the cost price and then gave a discount of 10%. He made a net profit of ₹ 468 after paying a tax of 10% on the gross profit. What is the cost price of the watch?

(a) ₹ 1200 (b) ₹ 1800

(c) ₹ 2000 (d) ₹ 2340

Ans: (c)

Q) One saree was purchased for ₹ 564 after getting a discount of 6% and another saree was purchased for ₹ 396 after getting a discount of 1%. Taking both the items as a single transaction, what is the percentage of discount?

(a) 3.5 (b) 4

(c) 7 (d) 7.5

Total marked price

$(MP) = 600 + 400$

$= 1000$

Total discounted price $(D) = ₹\,564 + ₹\,396 = 960$

$MP\left(1 - \frac{6}{100}\right) = 564$

$MP_1 = 564 \times \frac{100}{94} = 600$

$MP_2 = \frac{396}{99} \times \frac{100}{1} = 400$

$\frac{\text{Discount}}{MP} \times 100$

$\frac{1000 - 960}{1000} \times 100 = 4\%$

Q) One saree was purchased for ₹ 564 after getting a discount of 6% and another saree was purchased for ₹ 396 after getting a discount of 1%. Taking both the items as a single transaction, what is the percentage of discount?

(a) 3.5
(b) 4
(c) 7
(d) 7.5

Ans: (b)

Q) A cloth merchant buys cloth from a weaver and cheats him by using a scale which is 10 cm longer than a normal metre scale. He claims to sell cloth at the cost price to his customers, but while selling uses a scale which is 10 cm shorter than a normal metre scale. What is his gains?

(a) 20%

(b) 21%

(c) $22\frac{2}{9}\%$

(d) $23\frac{1}{3}\%$

HW

Q) A cloth merchant buys cloth from a weaver and cheats him by using a scale which is 10 cm longer than a normal metre scale. He claims to sell cloth at the cost price to his customers, but while selling uses a scale which is 10 cm shorter than a normal metre scale. What is his gains?

(a) 20%

(b) 21%

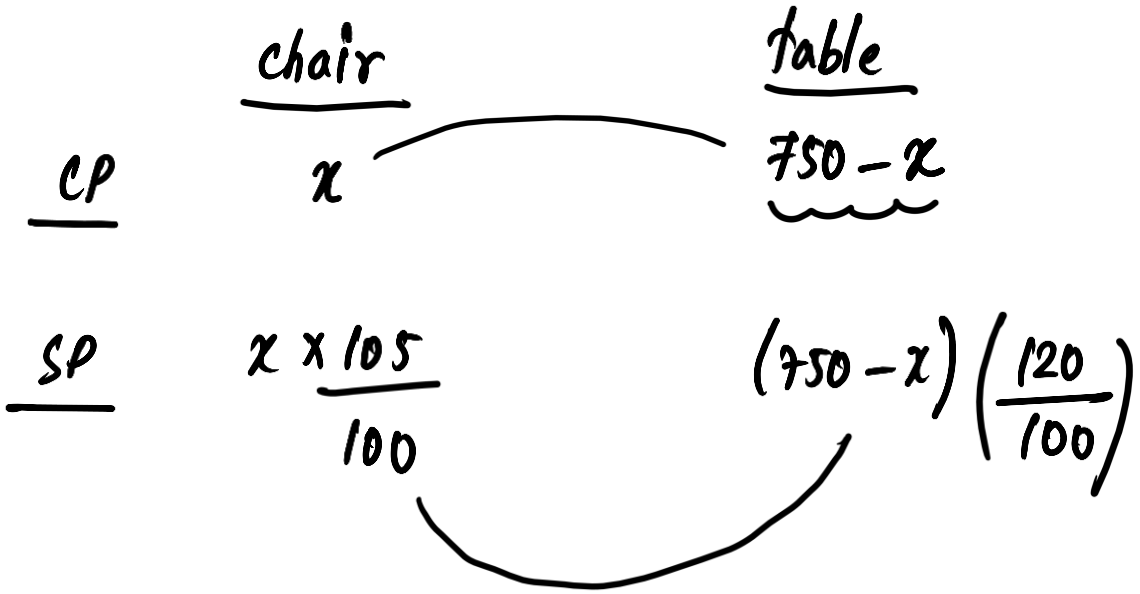
(c) $22\frac{2}{9}\%$

(d) $23\frac{1}{3}\%$

Ans: (c)

A person bought a chair and a table for ₹ 750. He sold the chair at a gain of 5% and the table at a gain of 20%. He gained 16% on the whole. What is original cost of table ?
(PYQ – 2021)

A. ₹ 400
B. ₹ 450
C. ₹ 550
D. ₹ 600



A person bought a chair and a table for ₹ 750. He sold the chair at a gain of 5% and the table at a gain of 20%. He gained 16% on the whole. What is original cost of table ?
(PYQ – 2021)

A. ₹ 400

B. ₹ 450

C. ₹ 550

D. ₹ 600

Q) By giving 25% discount a trader earns 25% profit. If he sells the item at 10% discount, what is his profit?

(a) 10%
(b) 40%
(c) 45%
(d) 50%

Q) By giving 25% discount a trader earns 25% profit. If he sells the item at 10% discount, what is his profit?

(a) 10%
(b) 40%
(c) 45%
(d) 50%

Ans: (d)

X sells his goods 25% cheaper than Y and 25% dearer than Z. How much percentage is Z's good s cheaper than Y ? (PYQ – 2021)

A. (100/3) %

B. 40 %

C. 50 %

D. (200/3) %

X sells his goods 25% cheaper than Y and 25% dearer than Z. How much percentage is Z's good s cheaper than Y ? (PYQ – 2021)

A. (100/3) %

B. 40 %

C. 50 %

D. (200/3) %

A trader sells two computers at the same price, making a profit of 30 % on one and a loss of 30 % on the other. What is the net loss or profit % on the transaction ?
(PYQ – 2019)

A. 6 % loss

B. 6 % gain

C. 9 % loss

D. 9 % gain

A trader sells two computers at the same price, making a profit of 30 % on one and a loss of 30 % on the other. What is the net loss or profit % on the transaction ?
(PYQ – 2019)

A. 6 % loss

B. 6 % gain

C. 9 % loss

D. 9 % gain

A person sells two items each at ₹ 990 , making a profit of 30 % on one and a loss of 30 % on the other. What is the combined % of profit or loss for the two items ?
(PYQ – 2019)

A. 1 % loss
B. 1 % profit
C. No Profit No Loss
D. 0.5% Profit

A person sells two items each at ₹ 990 , making a profit of 30 % on one and a loss of 30 % on the other. What is the combined % of profit or loss for the two items ?
(PYQ – 2019)

A. 1 % loss
B. 1 % profit
C. No Profit No Loss
D. 0.5% Profit

Q) A man bought 500 metres of electronic wire at 50 paise per metre. He sold 50% of it at a profit of 5%. At what percent should he sell the remainder so as to gain 10% on the whole transaction?

(a) 13% (b) 12.5% (c) 15% (d) 20%

Q) A man bought 500 metres of electronic wire at 50 paise per metre. He sold 50% of it at a profit of 5%. At what percent should he sell the remainder so as to gain 10% on the whole transaction?

(a) 13% (b) 12.5% (c) 15% (d) 20%

Ans: (c)

Q) A shopkeeper gets a loss of 28 (4/7)% on CP, find percentage loss on SP.

(a) 30%

(b) $\frac{200\%}{3}$

(c) 40%

(d) None of these

Q) A shopkeeper gets a loss of 28 (4/7)% on CP, find percentage loss on SP.

(a) 30%

(b) $\frac{200\%}{3}$

(c) 40%

(d) None of these

Ans: (c)

Q) Five kg of butter was bought by a shopkeeper for ₹ 300. One kg becomes unsaleable. He sells the remaining in such a way that on the whole he incurs a loss of 10%. At what price per kg was the butter sold?

(a) ₹67.50 (b) ₹52.50 (c) ₹60 (d) ₹72.50

Q) Five kg of butter was bought by a shopkeeper for ₹ 300. One kg becomes unsaleable. He sells the remaining in such a way that on the whole he incurs a loss of 10%. At what price per kg was the butter sold?

(a) ₹67.50 (b) ₹52.50 (c) ₹60 (d) ₹72.50

Ans: (a)

Q) A shopkeeper allows 10% discount on goods when he sells without credit. Cost price of his goods is 80% of his selling price. If he sells his goods by cash, then his profit is

(a) 50% (b) 70% (c) 25% (d) 40%

Q) A shopkeeper allows 10% discount on goods when he sells without credit. Cost price of his goods is 80% of his selling price. If he sells his goods by cash, then his profit is

(a) 50% (b) 70% (c) 25% (d) 40%

Ans: (c)

Q) A dealer of scientific instruments allows 20% discount on the marked price of the instruments and still makes a profit of 25%. If his gain over the sale of an instrument is ₹ 150, find the marked price of the instrument.

(a) ₹938.50
(b) ₹940
(c) ₹938
(d) ₹937.50

Q) A dealer of scientific instruments allows 20% discount on the marked price of the instruments and still makes a profit of 25%. If his gain over the sale of an instrument is ₹ 150, find the marked price of the instrument.

(a) ₹938.50
(b) ₹940
(c) ₹938
(d) ₹937.50

Ans: (a)

Q) A shopkeeper buys a product of ₹ 150 per kg. 15% of product was damaged. At what price (per kg) should he sell the remaining so as to earn a profit of 20%?

(a) $₹\,205\frac{13}{17}$

(b) $₹\,207\frac{13}{17}$

(c) $₹\,209\frac{13}{17}$

(d) $₹\,211\frac{13}{17}$

Q) A shopkeeper buys a product of ₹ 150 per kg. 15% of product was damaged. At what price (per kg) should he sell the remaining so as to earn a profit of 20%?

(a) $₹\,205\frac{13}{17}$

(b) $₹\,207\frac{13}{17}$

(c) $₹\,209\frac{13}{17}$

(d) $₹\,211\frac{13}{17}$

Ans: (d)

Q) The price of a jewel, passing through three hands, rises on the whole by 65%. If the first and the second sellers earned 20% and 25% profit respectively, find the percentage profit earned by the third seller.

(a) 20%
(b) 10%
(c) 25%
(d) No gain or loss

Q) The price of a jewel, passing through three hands, rises on the whole by 65%. If the first and the second sellers earned 20% and 25% profit respectively, find the percentage profit earned by the third seller.

(a) 20%
(b) 10%
(c) 25%
(d) No gain or loss

Ans: (b)

Q) A sells an article which costs him ₹ 400 to B at a profit of 20%. B then sells it to C, making a profit of 10% on the price he paid to A. How much does C pay to B?

(a) ₹472 (b) ₹476 (c) ₹528 (d) ₹532

Q) A sells an article which costs him ₹ 400 to B at a profit of 20%. B then sells it to C, making a profit of 10% on the price he paid to A. How much does C pay to B?

(a) ₹472 (b) ₹476 (c) ₹528 (d) ₹532

Ans: (c)

Q) An article is sold at a certain price. If it is sold at $33\frac{1}{3}\%$ of this price, there is a loss of $33\frac{1}{3}\%$. What is the percentage profit when it is sold at 60% of the original selling price?

(a) 20 (b) 30 (c) $33\frac{1}{3}$ (d) $17\frac{1}{3}$

Q) An article is sold at a certain price. If it is sold at $33\frac{1}{3}\%$ of this price, there is a loss of $33\frac{1}{3}\%$. What is the percentage profit when it is sold at 60% of the original selling price?

(a) 20 (b) 30 (c) $33\frac{1}{3}$ (d) $17\frac{1}{3}$

Ans: (a)

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SIMPLE & COMPOUND INTEREST

MCQS

NAVJYOTI SIR