# Aptitude Assignment-1

1) ‘What is 25% of 200?
    a) 25
    b) 50\
    c) 75\
    d) 100

Ans.- c)50%

(25/100) * 200= 50%

2) If 40% of a number is 80, what is the number?
    a) 100\
    b) 150\
    c) 200\
    d) 250

Ans- c) 200

(40/100)*x=80

x= (80*100)/40
x=200

3) 75% of a number is 150. What is the number?

a) 175
b) 200
c) 225\
d) 250

Ans-b) 200

(75/100)*x=150

x=(150*100)/75

x=200

4) What is 15% of 120?

a) 12\
b) 15\
c) 18\
d) 20

Ans- C)18

(15/100)*120=18

5) If 30% of a number is 90, then the number is:\

a) 200\
b) 250\
c) 300\
d) 350

Ans-c)300

(30/100)*x=90

x=(90*100)/30

x=300

6) The price of a product increases from ₹200 to ₹250. What is the percentage increase?\

a) 20%\

b) 25%\

c) 30%\

d) 35%

Ans-b)25%

((250-200)/200)*100=25%

7) A salary increases from ₹40,000 to ₹50,000. What is the percentage increase?\

a) 20%\

b) 25%\

c) 30%\

d) 35%

Ans-

((50000-40000)/40000)*100 = (1/4)*100 = 25%

8) The population of a town decreased from 10,000 to 8,000. What is the percentage decrease?\

a) 10%\

b) 15%\

c) 20%\

d) 25%

Ans- c) 20%

((8000-10000)/10000)*100= (2000/10000)*100=20%

9) A book's price drops from ₹500 to ₹400. What is the percentage decrease?\

a) 10%\

b) 15%\

c) 20%\

d) 25%

Ans- c)20%

((400-500)/500)*100=(1/5)*100=20%

10) If the cost price of an item is ₹600 and the selling price is ₹450, what is the percentage loss?\

a) 20%\

b) 22.5%\

c) 25%\

d) 30%

Ans-c)25%

CP=600 SP=450

%Loss=((SP-CP)/CP)*100= ((450-600)/600) * 100=(150/600)*100=(1/4)*100=25%

11) Which is greater: 30% of 400 or 40% of 300?\

a) 30% of 400\

b) 40% of 300\

c) Both are equal\

d) Cannot be determined

Ans= c) Both are equal

(30/100)*400=12%

(40/100)*300=12%

12) A person spends 60% of his income and saves ₹8,000. What is his total income?\

a) ₹15,000\

b) ₹18,000\

c) ₹20,000\

d) ₹25,000

Ans=c) 20000

Spend=60%

Save = 40%

(40/100)*x=8000

x=(8000*100)/40 =80000/4=20000

13) If A is 20% more than B, then B is how much less than A?\

a) 20%\

b) 16.67%\

c) 25%\

d) 10%

Ans=

Let B=100 so A=120

((120-100)/120)*100=(20/120)*100 =(1/6)*100 =16.67%

14) If the price of sugar is increased by 25%, by how much should the consumption be reduced to maintain the same expense?\

a) 20%\

b) 25%\

c) 30%\

d) 15%

Ans-a)20%

(25/125)*100=20%

15) If A's income is 40% more than B's income, then B's income is what percentage less than A's?\

a) 28.57%\

b) 30%\

c) 33.33%\

d) 40%

Ans-

let B=100 so A=140

((100-140)/140)*100= (40/140)*100= 400/14=200/7=28.57%

16) The price of an item is increased by 20% and then decreased by 10%. What is the net percentage change?\

a) 8% increase\

a) 8% decrease\

b) 10% increase\

c) 10% decrease

Ans-

Net change formula = x+y+(xy/100) =20-10+((20*(-10))/100)=8%

or

Let x=100 → 120 → 108 so

17) A number is increased by 30% and then decreased by 20%. What is the final percentage change?\

a) 4% increase\

b) 8% increase\

c) 10% increase\

d) 12% increase

Ans-

Ne change= A+B+(AB/100) = 30-20-((30*20)/100)=30-20-6 =4%increase

or

100→ 130→ 104

18) If the population of a city increases by 25% and then decreases by 20%, what is the net percentage change?\

a) 0%\

b) 5% increase\

c) 10% decrease\

d) 5% decrease

Ans-

Ne change= A+B+(AB/100) = 25-20-((25*20)/100)=25-20-5 =0%

or

100→ 125→ 100

19) If a price increases by 40% and then decreases by 30%, the final change is:\

a) 2% increase\

b) 10% increase\

c) 10% decrease\

d) 2% decrease

Ans-

Ne change= A+B+(AB/100) = 40-30-((40*30)/100)=40-30-12 =2% decrease

Or

100→140→98

20) The salary of a person is first increased by 20% and then decreased by 10%. What is the overall percentage change?\

a) 8% increase\

b) 10% increase\

c) 10% decrease\

d) No change

Ans-

Ne change= A+B+(AB/100) = 20-10-((20*10)/100)=20-10-2 =8% increase

OR

100→120→108

21) If an article is sold at a profit of 25%, then the selling price is what percentage of the cost price?\

a) 100%\

b) 125%\

c) 150%\

d) 175%

Ans-

profit=(SP-CP)/CP

25% CP=SP-CP

SP=CP+25%CP

SP=(125%)CP

22) A shopkeeper allows a discount of 10% on the marked price and still makes a profit of 8%. If the marked price is ₹500, what is the cost price?\

a) ₹400\

b) ₹420\

c) ₹450\

d) ₹460

Ans-

SP=500-(10% *500)=500-50 =450

Lest cost price be x then

x+8%X=450

x(1.08)=450

x=450/1.08 =420

23) If the profit is 20% of the cost price, then what is the profit percentage on the selling price?

a) 16.67%\

b) 18%\

c) 20%\

d) 22%

Ans-

Let CP = 100 then profit =20

SP=120

profit percentage on SP= (20/120)*100= 16.67%

24) A product is marked at ₹1,200 and sold for ₹960. What is the percentage discount given?

a) 15%\
b) 20%\
c) 25%\
d) 30%

Ans-

((1200-960)/1200 )*100=20%

25) If an article is bought for ₹500 and sold for ₹650, what is the percentage profit?

a) 20%\
b) 25%\
c) 30%\
d) 35%

Ans-

((650-500)/500)*100=(150/500)*100=30%

26) .If A's income is 20% more than B's, then B's income is what percentage less than A's?

a) 16.67%
b) 18%
c) 20%
d) 25%

Ans-

Lets B=100 then A=120
((120-100)/120)*100=(20/120 )*100=16.67%

27) If the ratio of boys to girls in a school is 3:2, what percentage of the total students are boys?

e) 30%
f) 40%
g) 50%
h) 60%

Ans-

total part= 3+2=5
percentage of boys=
(3/5)*100=60%

28) A city's population increased from 2,00,000 to 2,50,000 in 2 years. What is the percentage increase?

a. 20%
b. 25%
c. 30%
d. 35%

Ans-

((250000-20000)/20000)*100=25%

29) In an election, a candidate gets 65% of the total votes and wins by 3000 votes. How many total votes were cast?

a. 5000
b. 6000
c. 8000
d. 9000

Ans-

Losing candidate got 35% of votes
diff= 65-35=30%
total votes be x= 30% of x=3000
x=(3000*100)/30 =10000

30) The price of an article is reduced by 30%. By what percentage must the new price be increased to restore the original price?

a. 30%
b. 42.85%
c. 50%
d. 60%

Ans-

let original price=100
new price after 30% decrease =70%

((100-70)/70)*100= (30/70) *100 = 42.85%

31) If a number is increased by 50% and then decreased by 50%, what is the net percentage change?

a. 0%
b. 25% decrease
c. 50% decrease
d. 75% decrease

Ans-

Net percentage= 50-50-((50*50)/100)=-25%decrease

32) If A is 20% taller than B, then B is shorter than A by:

a. 16.67%
b. 18%
c. 20%
d. 25%

Ans-

let B=100 then A=120
((1)/120 )*100=(-20/120)*100=16.67%

33) If 30% of a number is 90, what is 60% of the same number?

a. 120
b. 150
c. 180
d. 200

Ans-

(30/100)*x=90
x=(90*100)/30=300
(60/100)*300=180

34) A person spends 75% of his income and saves ₹5000. What is his total income?

a. ₹15,000
b. ₹18,000
c. ₹20,000
d. ₹25,000

Ans-

Let income=x
Saving =25%
(25/100)*x=5000
x=5000*4=20000

35) The price of petrol increases by 20%. By what percentage should consumption be reduced to maintain the same expense?

a. 16.67%
b. 18%
c. 20%
d. 25%

Ans-

Reduction % =(increase% /(100+increase%))*100
=(20/(100+20))*100
=(20/120)*100
=(1/6)*100
=16.67%

36) The price of a TV was first increased by 20% and then decreased by 10%. What is the overall percentage change?

a. 8% increase
b. 10% increase
c. 10% decrease
d. No change

Ans-

Net change=20-10-((10*20)/100)
=20-10-2
=8% increase

37) A shopkeeper marks an item 25% above the cost price and gives a 20% discount. What is his profit/loss percentage?

a. 0%
b. 2% profit
c. 5% profit
d. 10% loss

Ans-

Let CP=100
Marked price(MP)=125
SP after 25% discount=
SP=125-(20% *125)
=125 -25 =100
Since SP=CP → 0%

38) If the cost price of an article is ₹500 and it is sold at a loss of 20%, what is the selling price?

a. ₹350
b. ₹375
c. ₹400
d. ₹450

Ans-

SP=CP-(20%*CP)
=500-((20*500)/100)
= 500-100
= 400

39) If a salary is increased by 10% and then decreased by 10%, what is the final percentage change?

a. 0%
b. 1% decrease
c. 1% increase
d. 2% decrease

Ans-

Net Change= 10-10-(100/100)= -1 decrease

40) A student needs 40% marks to pass. He gets 200 marks and fails by 20 marks. What are the total marks?

a. 500
b. 550
c. 600
d. 650

Ans- a

Passing mark = 200+20=220
Total mark=x
40% *X=220
x=220 *100 /40 =11*50 =550

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41) A man spends 20% of his salary on rent, 30% on food, and 10% on transport. If he saves ₹18,000, what is his salary?

a. ₹40,000
b. ₹45,000
c. ₹50,000
d. ₹55,000

Ans=

Let Salary =x
Total expense=20+30+10=60
Saving%=40%
(40/100)*x=18000

42) The cost of an item is first increased by 30% and then decreased by 30%. What is the overall percentage change?

a. 0%
b. 9% decrease
c. 9% increase
d. 15% decrease

Ans-

Net change= 30-30-(900/100) =-9 decrease

43) The population of a town increases by 10% every year. If the current population is 10,000, what will it be after 3 years?

a) 13,310

b) 13,500

c) 14,000

d) 14,200

Ans-

Using compound growth formula:

$$P = 10,000 \times \left(1 + \frac{10}{100}\right)^3$$

P=10000 * 1.1^3 =10000 * 1.331 = 13310

44) If 15% of A is equal to 20% of B, then A:B is:

a) 3:4

b) 4:3

c) 3:5

d) 5:3

Ans-

15A=20B

A/B= 20/15 =4/3

45) If the cost price of an item is ₹800 and the profit made is 25%, what is the selling price?

a) ₹900

b) ₹1000

c) ₹1050

d) ₹1100

Ans-

SP=CP+((25/100)* CP

=800+((1/4)*800)

=800+200 =1000

46) If the cost price (CP) of an item is ₹200 and the selling price (SP) is ₹250, what is the profit percentage?

a) 20%

b) 25%

c) 30%

d) 40%

Ans-

Profit %= ((250-200)/200)*100 =(50/200)*100= 25%

47) A man sells an article for ₹720 at a profit of 20%. Find the cost price.

a) ₹600

b) ₹620

c) ₹650

d) ₹700

Ans= a

P%=((SP-CP)/CP)*100

(P% /100 )CP =SP -CP

((P% /100)+1)CP =SP

CP = 720/((20/100)+1)

CP = 720/(6/5)

CP=120*5 =600

48) A shopkeeper sells an item at a loss of 15%. If the cost price is ₹500, find the selling price.

a) ₹400

b) ₹425

c) ₹450

d) ₹475

Ans- b

SP= (1-(L% /100)) CP

SP= (1-(15/100))500

SP= (85/100)*500

SP=(85*5 ) =425

49) A man purchased a cycle for ₹1500 and sold it at a loss of 10%. What was the selling price?

a) ₹1200

b) ₹1300

c) ₹1350

d) ₹1400

Ans= c

SP =(1-(L%/100))*CP

SP= (1-(10/100))*1500

SP=(90/100)*1500

SP= 90*15 =1350

50) A trader marks his goods at 30% above the cost price and allows a discount of 10%. What is his gain percent?

a) 17%

b) 18%

c) 19%

d) 20%

Ans-

Let CP =100

MP=100+30 =130

SP=130- ((10/100)*130)

SP=130-13=117

p% =((117-100)/100)*100 = 17%