

Percentage Questions for SSC Exams

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Percentage Questions for SSC CGL Tier-II Level Exams

1) Rohit Sharma scored 264 runs which included 28 boundaries and 18 sixes. What per cent of his total score did he make by running between the wickets?

- a) 15%
- b) 15.75%
- c) 16.66%
- d) 33.33%

2) A person spends 62.5% of his income. If his income increases by 37.5% and expenditure increases by 80% but savings decreases by Rupees 1200 then find his initial income.

- a) 1200
- b) 2400
- c) 9600
- d) 10800

3) In a city number of female is 12.5% more than the number of children, but 20% more than the number of males. If the number of male increases in ratio 5 : 6 but the number of female increases by $22\frac{2}{9}\%$ and in the number of children increases by 630. Due to this total population increases by $28\frac{4}{7}\%$. Find the increment in the number of females.

- a) 320
- b) 340

c) 360

d) 380

4) A and B invest in a business in the ratio of 6 : 7. A spend 60% of its amount in electricity and 20% of rest on medical, whereas B spends 40% of its amount on personal expenses and 60% of the rest on Goods charges. The total amount left with them is Rupees 36,000 then calculate their individual sum.

- a) 60000 /- and 60000/-
- b) 60000/- and 70000/-
- c) 70000/- and 70000/-
- d) 70000/- and 80000/-

5) A person went to the shopping mall, he starts buying items costing 1, 2, 3, 4, 5... upto 20 terms. Also, he spends 75% of the total amount of buying a shirt. Now he is left with Rupees 190 then calculates the original amount he had.

- a) 1800
- b) 1600
- c) 2000
- d) 2200

6) There were only two candidates in an election, 10% of the voter list did not cast their votes and 68 voters cast their ballot paper blank. The winner was

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supported by 47% of all voters in the list and he got 368 votes more than the rival. The number of voters on the list was:

- a) 7,500
- b) 8,000
- c) 8,500
- d) 6,500

7) In a company number of employees is increased by a% and also time duration is increased by a% Due to this production of the company increases by 224%. If a total of 440 new employees joins the company then find the initial number of employees in the company.

- a) 300
- b) 400
- c) 500
- d) 550

8) The price of rice is increased by 22.22%, then increased by a% and again it is reduced by $15\frac{5}{8}\%$. But a person reduced his consumption by 35% and his expenditure is 2.5% less than previous. Find the value of a.

- a) 45.45%
- b) 204%
- c) 20.4%
- d) 55.45%

9) In a cylinder, the ratio of radius and height is 1 : 2. If the radius is increased by 50% and height is decreased by 40%. Find the percentage change in volume of the cylinder.

- a) 25%

b) 32%

c) 30%

d) 35%

10) In a cuboid breadth is decreased by $11\frac{1}{9}\%$. Length is decreased by 12.5% and height is decreased by 10%. What is the effect on the original value?

- a) 30% decrease
- b) 30% increase
- c) 40% decrease
- d) 40% increase

11) The monthly income of a person was Rupees 15300/- and his monthly expenditure was 10200. If his income increased by 15% and expenditure increased by 10%. The % increase or decrease in savings?

- a) 20% Increase
- b) 25% Decrease
- c) 20% decrease
- d) 25% Increase

12) The salary of an officer, 10% is deducted as house rent. 15% of the rest he spends on children education and 10% of the balance, he spends on clothes. After this expenditure, he is left with him as Rupees 4,131. What is his salary?

- a) 4000
- b) 4500
- c) 5000
- d) 6000

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13) If 135 is increased by $x\%$ and 405 is decreased by $y\%$. Results are equal, then $x/2\%$ of 180 is what % more than $(100 + x\%)$ of 75?

- a) 60%
- b) 50%
- c) 30%
- d) 20%

14) The price of an article was increased by $x\%$ and again decreased by $x\%$. If the latest price was Rupees 1. Then the original price was?

- a) $10000 / (10000 - x^2)$
- b) $10000 / (1000 - x^2)$
- c) $1000 / (10000 + x^2)$
- d) None of these

15) Price of diesel increased from Rupees 45/Litre to 50/litre. How much should the consumption of diesel be reduced (in%) so as to increase expenditure by only 5%?

- a) 4.5%
- b) 5.25%
- c) 5%
- d) 5.5 %

16) If $223\% A = 2007\%$ of B and $B = x\%$ of A, then the value of x is?

- a) 11.11%
- b) 10%
- c) 12.5%
- d) 11.5%

17) 30 Litres of water is added to 60 litres of a solution containing 30% alcohol in water. What is the concentration of alcohol in solution now?

- a) 45%
- b) 46%
- c) 46.66%
- d) 45.66%

18) The monthly salary of A and B together are amounts of Rs. 40000. A spends 85% of his salary and B spends 95% of his salary. If their saving is same then the salary of A is?

- a) 10,000
- b) 8,000
- c) 9,500
- d) 12,000

19) If the salary of Sonu is 37.5% less than the Monu, then salary of Monu is how much percentage more than Sonu?

- a) 45%
- b) 50%
- c) 60%
- d) 166.66%

20) The price of petrol is increased by 66.66%. By how much % a car driver should reduce his consumption of petrol so that there is no extra expenditure?

- a) 40%
- b) 75%
- c) 60%

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d) 70%

21) The price of sugar is reduced by 20%. Now, a person can buy 5 kg more sugar for Rs. 320. What is the reduced price of sugar per Kg?

a) 12.8

b) 13.8

c) 14.8

d) 15.8

22) The population of a city decreases by 100/17%, 100/13% and 100/23% respectively in three years. If the population of the city decreases by 3680 during 2nd year then find the total decrement in population for three years.

a) 8590

b) 8580

c) 8560

d) 8540

23) Rohit spent of his 100/19% on food and 100/9% of remaining part on medicine and donate Rs. 400 and finally 25/3% of remaining part on travelling and save Rupees 5500. Find the difference between his expenditure on food and travelling.

a) 100/-

b) 200/-

c) 300/-

d) 400/-

24) Price of a commodity is first increased by x% and then decreased by x%. If the new price is A/100 then find the original price.

a) $100(100 - x^2)$

b) $100A/(100 - x^2)$

c) $100A/(1 - x^2)$

d) $100(100A - x^2)$

25) A man went to the market with Rs.1200 in his pocket. He spent 33.33% on buying medicine. 5x% of the remaining on buying food items and he spent 50% of the remaining on travelling, at last, he left with him Rupees 360. Find 5x%

a) 20%

b) 15%

c) 10%

d) 25%

26) The price of the entry ticket of a theatre increases by Rupees 70 but the number of visitors decreases by 50/3% and total revenue increases by Rupees 5000. If the initial price of the ticket is Rupees 210 then find the initial revenue of the theatre.

a) 45000/-

b) 30000/-

c) 60000/-

d) 50000/-

27) Australia scored a total of Z runs in 20 over. India ties the scores in 20% fewer over. If the initial average run rate had been 100/3% higher. The scores would have been tied earlier in how many over?

a) 8 Over

b) 10 Over

c) 6 over

d) 12 Over

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28) Sanjeev, a salesman is appointed on the basic salary of Rupees 1500 per month and the condition that for every sale of Rupees 20,000, he will get 20% of basic salary and 20% of the sales as a reward, this incentive scheme does not operate for the first 20,000 rupees of sales. What should be the value of sales if he wants to earn 23,000/- rupees in a particular month?

- a) 90000
- b) 60000
- c) 120000
- d) 145000

29) In a city 60% are male and remaining are females. Out of total males, 25% of the male are government employees. Out of the remaining male's ratio between private employees to unemployed the male is 4 : 5. Out of total female, 60% of females are in government jobs and out of the remaining females 60% of female work for private firms and remaining are unemployed. If the difference between male and female who are unemployed is Rupees 6510 then find the total number of male and female who are government employees?

- a) 12,650
- b) 13,650
- c) 11,750
- d) 10,500

30) Sonu spends 11.76% of his monthly salary on rent, 20% of the rest is spent on goods 5.55% of the rest is spent on clothes and 46.66% of the rest is invested in travelling. He gives 11.11% of his salary to his friend. If the salary is Rupees 31500 then find his savings?

- a) 6,575

b) 7,000

c) 7,700

d) 8,500

31) A boy found the answer to the question subtracted the sum $\frac{1}{5}$ and $\frac{1}{8}$ from the unit and express the answer in decimals 0.075. The percentage of errors in his answer has.

- a) 89.99%
- b) 66.66%
- c) 88.88%
- d) 67.77%

32) On a certain date, England has a success rate of 80% against India in all ODI's played between the two countries. England lost the next 90 ODI's against India in a row India and their (England) success rate come down to 40%. Find the total number of ODI's played between the two countries?

- a) 140
- b) 180
- c) 160
- d) 200

33) In the mock test package of SSC CGL MAINS, Amit has scored 74, 67, 62, 60 out of 100 each in four mock tests. How much should his score out of 100 in the 5th exam to have an aggregate percentage greater than 70 %?

- a) > 87
- b) < 85
- c) $= 79$
- d) $= 67$

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34) An alloy of gold and zinc weight of 80 grams. It contains 70% gold. How much gold should be added to the alloy so that percentage of gold is increased to 90%?

- a) 12 grams
- b) 15.66 grams
- c) 15 grams
- d) 16 grams

35) In an examination, 52% of the candidates failed in math. 30% of the candidates failed in Hindi and 15% of the candidates failed in both the subjects. If 198 candidates passed in both the subjects then find the total number of candidates?

- a) 350
- b) 300
- c) 600
- d) 675

36) In a class, the ratio of students who pass in only maths and only physics is 7 : 15, and the ratio of those who passed in both subjects and fails in both subjects is 1 : 3. If 210 students fail in Math and fail in both the subject is $\frac{2}{5}$ th of the pass only in Physics then find the total number of students in the class?

- a) 300
- b) 250
- c) 210
- d) 200

37) In an examination, a student who gets 33.45% of the maximum marks failed by 23 marks another student who scored 44.45% of the maximum marks

gets 32 marks more than the pass marks. The necessary percentage required for passing is:

- a) 38.05%
- b) 39.5%
- c) 37.5%
- d) 33.33%

38) In a party number of female guests is two times the male guest. 50% male like a soft drink but 20% like both soft and hard drink. Male guest who like both drinks is one fourth of female guests like both. And the ratio of female guest who like only soft drinks and only hard drink is 5 : 3.

If the difference between the male and female who like the only hard drink is 100 then find the total number of the guest at the party. Find the total member of guests in the party if the difference between the male and female who like only hard drinks is 100.

- a) 3,200
- b) 2,500
- c) 3,000
- d) 2,700

39) The pressure of a gas is directly proportional to the square of the number of molecules and directly proportional to its temperature but inversely proportional to its volume of the number of molecules decreases by $\frac{50}{3}\%$. Temperature increases by 12.5% and volume decrease by 8.33%. Find the change in pressure of the gas.

- a) 15.75%
- b) 14.77%
- c) 16.75%

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- d) 12.5%
- 40) In a maternity Center, 15% of the childbirth cases are twins. What is the approximate percentage of twins out of total children born?**
- a) 27.75%
b) 22.75%
c) 26.08%
d) 33.05%
- 41) Every year the value of a machine depreciated by 50/3%. If it's present value is 108000. Find it's the value after 3 years.**
- a) 62,500
b) 65,500
c) 45,675
d) 52,590
- 42) One type of liquid contains 26.66% water and the second type of liquid contains 25% of water. A glass is filled with 15 parts of the first liquid and eight parts of the second liquid. The water in the new mixture in the glass is -**
- a) 600/23%
b) 300/23%
c) 150/17%
d) 390/17%
- 43) How much pure alcohol has to be added to 600 litres of a solution containing 50/3% of alcohol to change the concentration of alcohol in the mixture to 36%?**
- a) 183.26 litres
- b) 175.75 litres
- c) 181.25 litres
- d) 171.75 litres
- 44) The percentage of metals in a mine of lead ore is 80%. Now the percentage of gold is 5/6% of metals and the rest is lead. If the mass of ore extracted from this mine is 12000 kilogram. Find the mass of lead is.**
- a) 8,950Kg
b) 1,205Kg
c) 1,025Kg
d) 9,520Kg
- 45) A's income is 40% less of B's income, and expenditure of A is 75% if B's expenditure. If A's income is 80% of B's expenditure. If the saving differences of A and B is Rupees 5100 /- then find the value of saving of B.**
- a) Rs. 6,500/-
b) Rs. 7,500/-
c) R.s 8,000/-
d) Rs 6,000/-
- 46) 30 Kilograms of fresh watermelon contains 80% water. After some time water remains 60% in the fruit. Find the present weight of watermelons?**
- a) 15Kg
b) 18Kg
c) 20Kg
d) 13.5Kg

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47) The cost of the table is 47.1/17% more than the cost of the chair. The cost of 15 chairs is how much % more or less than the cost of 12 tables.

- a) 12.5% More
- b) 14.75% less
- c) 15% less
- d) 16.66% More

48) The number of students who appeared from a school for the Madhyamik examination in three consecutive years is in the ratio 5 : 7 : 9 and 70%, 85.5%, and 96.5% of students at respective years were successful. What is the percentage of students who were successful during these three years taken together?

- a) 86.51%
- b) 86.52%
- c) 88.66%
- d) 88.55%

49) 20% of the soldiers of an army camp are killed in the battle. 35% of the remaining soldiers died of corona and 50/3% of the remaining soldiers were disabled. Now only 1757600 soldiers were left in the army camp. How many totally soldiers were there at the beginning?

- a) 556500
- b) 4456000
- c) 4056000
- d) 4546000

50) The tax on an article decreases by 33.33% and it's consumption increases by 50/3%. Find the percentage effect on its revenue?

- a) 35.65%
- b) 33.33%
- c) 34%
- d) 28.75%

Answers

1) Answer: C

According to the question,

The batsman scored $28 \times 4 + 18 \times 6 = 220$ runs by boundaries and sixes respectively.

The runs scored by running between the
 $= 264 - 224 = 44$

So, Required % = $44/264 \times 100 = 16.66\%$

Hence, the correct option is C.

2) Answer: C

According to the question,

$62.5\% : 5/8$

As we know, income - Expenditure = Savings,

Here we can go through the below table with given data in the question,

62.5% = 5/8	Income	Expenditure	Savings
Initial	8	5	3

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	37.5% = +3/8	80% = 4/5	Difference of 3 and 2 = 1
Final	11	9	2

Now, The difference between savings of initial and final = 1 Unit,

1 unit = Rupees 1200

So, Initial Income is 8 units = Rupees 9600/

Hence the correct option is C.

3) Answer: C

According to the question,

As we know, $12.5\% = 1/8$

The ratio of Children : Female = 8 : 9 and we also know that $20\% = +1/5$,

And Male : Female = 5 : 6,

Now, we can find the ratio of M: F: C by the below table,

M	F	C
5	9	8
	6	
5×9; 15	9×6; 18	6×8; 16

So, M : F : C = 15 : 18 : 16,

Again, By the help of the 2nd table for initial and final required value,

	M	F	C	Total
Initial ;	15	18	16	49
Male = 5 Units = 15	15	$18 \times (22/9)$	+7	$49 \times (28/7)$
Final; And 6 = 18	18	22	23	63

Now,

7 units = 630; therefore, 1 units = 90

So, 4 units = 360.

Hence correct option is C.

4) Answer: B

Let A= 600, B = 700,

According to the question,

$$\frac{600 \times (100 - 60)}{100} \times \frac{(100 - 20)}{100} + \frac{700 \times (100 - 40)}{100} \times \frac{(100 - 60)}{100} = 36600$$

Or, 192+168 Units = Rupees 36600,

Or, 360 Units = Rupees 36000

Or, 1 unit = 100 Rupees

So, 600 units = Rupees 60000/-

And 700 units = Rupees 70000/-

Hence correct option is B.

5) Answer: B

Let total amount = x,

According to the question,

As we know that sum of A.P n terms = $n/2(a + l)$ (a= first term + l = last term)

So, $1+2+3+4+\dots+20 = (20/2) \times 21 = 210$

(Sum of A.P of 20 terms where a = 1 and l = 20)

As per question,

$$x = 3x/4 + 210 + 190$$

Or, $x/4 = 400$

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So, $x = 1600$.

Hence the correct option is B.

6) Answer: A

Let, Total voters = $100x$

Number of casted vote = $90x$

Valid vote = $90x - 68$

The winner got $47x$ votes,

So, Looser got $90x - 68 - 47x = (43x - 68)$ votes,

According to the question,

$$47x - 43x + 68 = 368$$

$$\text{Or, } 4x = 300$$

$$\text{Or, } x = 75$$

$$\text{So, } 100x = 7500$$

Hence, the correct option is A.

7) Answer: D

According to the question,

We go through the below table with given data in question,

	Initial	Final
Employees	X	y
Time duration	X	y
	100	324

Now, Initial and Final, $I : F = x^2 : y^2 = 100 : 324$

$$\text{Or, } x^2/y^2 = 100/324$$

$$\text{Or, } x/y = 10/18$$

$$\text{Ratio} \Rightarrow 5 : 9$$

And, 4 units = 440, 1 Unit = 110

So, 5 units = 550.

Hence, the correct option is D.

8) Answer: A

As we know that $E = P \times Q$ or, $E = P \times C$,

$$P = 22.2\% = +2/9, 11(\text{Final}) / \text{Initial}(9),$$

$$15.5/8\% = -5/32, 27(\text{Final}) / 32(\text{Initial}),$$

$$a\% = b(\text{Final}) / a(\text{Initial}),$$

$$\text{And, } Q = 35\% = -7/20, 13(\text{Final}) / 20(\text{Initial}),$$

$$E = 2.5\% = -1/40, 39(\text{Final}) / 40(\text{Initial}),$$

Now, applying Ratio method,

	Initial	Final
$P = 22.22\% = +2/9$	9	11
$a\% = b/a$	a	B
$15.5/8\% = -5/32$	32	27
$Q = 35\% = -7/20$	20	13
$E = 2.5\% = -1/40$	40	39
Ratio	$9 \times a \times 32 \times 20 \times 40;$ 16a	$11 \times b \times 27 \times 13 \times 39;$ 11b

$$\text{So, } 16a = 11b, a/b = 11/16,$$

$$\text{Required \%} = (16-11) \times 100 / 11 = 500 / 11\% = 45.45\%.$$

Hence, the correct option is A.

9) Answer: D

As we know that volume of the cylinder is directly proportional to the square of the radius and its height.

$$\text{Volume of cylinder} = \pi r^2 h,$$

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According to the question, we have drawn a table with given information,

	Initial	Final
$r^2 = 50\% = +1/2$	2	3
	2	3
$h = 40\% = -2/5$	5	3
	$2 \times 2 \times 5 = 20$	$3 \times 3 \times 3 = 27$

So, Ratio between initial and final = 20 : 27,

Change in volume of cylinder = 27 - 20 = 7

Now, Required % = (change in volume / Initial volume) $\times 100 = (7/20) \times 100\% = 35\%$

Hence, the correct option is D.

10) Answer: A

As we know that volume of the cuboid is directly proportional to its length, breadth and height.

The volume of cuboid = $l \times b \times h$,

	Initial	Final
Length = 12.5% = -1/8	8	$7 = 8 - 1$
Breadth = $100/9\% = -1/9$	9	$8 = 9 - 1$
Height = 10% = - 1/10	10	$9 = 10 - 1$
Volume = $l \times b \times h$	$8 \times 9 \times 10, 10$	$7 \times 8 \times 9, 7$

Ratio of volume of cuboid is initial to final = 10: 7,

Decrease in volume. = $10 - 7 = 3$,

So, Required % = $(3/10) \times 100 = 30\%$ decrease.

Hence, the correct option is A.

11) Answer: D

As we know that Income = Expenditure + Savings,

According to the question,

Ratio of Income : Expenditure: Savings = 15,300 : 10,200 : 5,100 = 3 : 2 : 1,

Income = Expenditure + Savings,

As per derived and given data as well as information, here we can go through below table,

Income	Expenditure	Savings
= 3 + 15 % of 3 = 3.45 %	= 2 + 10% of 2 = 2.20%	= 1 = 3.45% - 2.20% = 1.25%

According to the above table, we savings become as 1.25 %,

Since, Initial savings us 1% Unit, Final savings = 1.25%

So, 25 % increased in the previous savings.

Hence, the correct option is D.

12) Answer: D

As we now know that

10% = -1/10 (10% deduction on House Rent), Initial = 10 and Final = 9

15% = -3/20 (15% spends on children education), Initial = 20 and Final = 17

10% = -1/10 (10% spends on clothes) ,Initial = 10 and Final = 9

Ratio of initial and final = $10 \times 20 \times 10 : 9 \times 17 \times 9 = 2000 : 1377$

Or, $2000 \times 3 : 1377 \times 3$

Income = Rupees 6000 and savings = Rs.4131.

Hence, correct option is D.

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13) Answer: A

According to the question,

$$\frac{135(100+x)}{100} = \frac{405(100-x)}{100}$$

$$\text{Or, } 100 + x = 300 - 3x$$

$$\text{Or, } 4x = 200$$

$$\text{Or, } x = 50$$

Now,

$$180 \times \frac{x}{100 \times 2} = 45$$

And,

$$75 \times \frac{100+50}{100} = 112.5$$

$$\text{So, } (67.5/112.5) \times 100 = 60$$

Hence, Correct option is A.

14) Answer: A

Let the original price = x,

Now, according to the question,

$$\frac{x(100+x)}{100} \times \frac{(100-x)}{100} = 1$$

$$\text{Or, } x(10000 - x^2) = 10000$$

$$\text{Or, } x = 10000 / (10000 - x^2)$$

Hence, the correct option is A.

15) Answer: D

As we know, $E = Q \times P$,

Here, we can draw a table with given information in question,

	Initial	Final
P	$45 \Rightarrow 9$	$50 \Rightarrow 10$

Q	x	Y
$E = 5\% = +1/20$	20	21

$$\text{So, } x/y = 20 \times 10 = 200 / 21 \times 9 = 189$$

$$\text{Required \%} = (11/200) \times 100 = 5.5 \%$$

Hence, correct option is D.

16) Answer: A

According to the question,

$$A \times 223\% = 2007\% \times B$$

$$\text{Or, } A/B = 2007/223 = 9$$

$$\text{Or, } A = 9B$$

Now,

$$B = 0.1111A$$

$$x = 11.11\%$$

Hence, the correct option is A.

17) Answer: C

As per given data and information in question,

$$\text{Water} = 60 \times 30 / 100 = 18 \text{ Litres}$$

$$\text{Alcohol} = 60 - 18 = 42 \text{ Litres}$$

$$\text{Adding water} = 18 + 30 = 48 \text{ Litres}$$

$$\text{So, Mixture} = 42 + 48 = 90 \text{ Litres}$$

According to the question,

$$(42/90) \times 100 = 46.66\%$$

Hence, the correct option is C

18) Answer: A

As we know that $\text{Income} = \text{Expenditure} + \text{Savings}$,

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For A, $I = E + S$, $100(\text{Income}) = 85 (\text{Expenditure}) + 15 (\text{A Savings})$,

For A, Ratio of $I : E : S = 20 : 17 : 3$

For B, Ratio of $I : E : S = (20 : 19 : 1) \times 3 = 60 : 57 : 3$

Income of A and B = $60 + 20$ Units = 80

And 80 Units = 40000, 1 unit = 500

So, 20 units = Rupees 10,000

Hence, Correct option is A.

19) Answer: C

As we know that,

$$37.5\% = 3/8$$

So, Sonu : Monu = 5 : 8

According to the question,

So, required % = $(3/5) \times 100 = 60\%$

Hence, correct option is C.

20) Answer: A

As we know that, $r = 66.66\%$

Reduction % in consumption = $(r / (100 + r) \times 100)\%$

So, required % = $(66.66 / 166.66) \times 100 = 39.99\%$

Hence, the correct option is A.

21) Answer: A

As we know that $20\% = -1/5$ (reduced price),

Price ratio is 5 (old) : 4 (new)

Now, the quantity ratio is 4 : 5, Difference = $5 - 4 = 1$ Unit,

According to the question,

1 Unit = 5,

So, $320/25 = \text{Rupees } 12.8$.

Hence, the correct option is A.

22) Answer: A

According to the given data and information, we can draw a table and go through it,

The population of a city decreases by $100/17\%$, $100/13\%$ and $100/23\%$ respectively in three years.

And the population of the city decreases by 3680 during 2nd year.

I	II	III
$100/17\% = -1/17$ 17:16	$100/13\% = -1/13$ 13:12	$100/23\% = -1/23$ 23:22
$17 \times 2990 = 50830$, $16 \times 2990 = 47840$	$13 \times 3680 = 47840$ $12 \times 3680 = 44160$	23 Units = 44160

As per the above table,

23 Units = 44160

So, 22 Units = 42240.

Loss in population $50830 - 42240 = 8590$.

Hence, the correct option is A.

23) Answer: A

According to the given data and information we can draw a table and go through it,

Spends $100/19\%$ on = $-1/19 = 18(\text{Final})/19 (\text{Initial})$ on food,

And $100/9\%$ of remaining part = $-1/9 = 8(\text{Final})/9 (\text{Initial})$ on medicine,

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And $25\frac{1}{3}\%$ of remaining part = $\frac{1}{12} = \frac{11(\text{Final})}{12(\text{Initial})}$ on travelling,

And donate Rupees 400/- and savings = Rupees 5500

Food = 19 : 18	Medicine = 9 : 8	Travel = 12 : 11
$19 \times 400 = 7600$	$9 \times 800 = 7200$	$12 \times 500 = 6000$
$18 \times 400 = 7200$	$8 \times 800 = 6400$	$11 \times 500 = 5500$

Now, according to the above table, Difference between expenditure of Travelling and Food = $500 - 400 =$ Rupees 100.

Hence, the correct option is A.

24) Answer: B

Let the original price be y.

$$y \times (100 + x) \times (100 - x) / 100 \times 100 = A / 100$$

$$\text{Or, } y \times (100 - x^2) / 100 \times 100 = A / 100$$

$$\text{Or, } y = 100A / (100 - x^2).$$

Hence, the correct option is B.

25) Answer: C

We know that $33.33\% = \frac{1}{3} = \frac{2}{3}$,

Now,

According to the question,

$$1200 \times \frac{2}{3} \times (100 - 5x) / 100 \times (1/2) = 360$$

$$\text{Or, } 100 - 5x = 90$$

$$\text{Or, } 5x = 10\%$$

Hence, the correct option is C.

26) Answer: A

As we know, that Revenue = Price \times Ticket (Visitors)

According to this question,

Price increase by Rupees 70/-

The initial price is Rupees 210/-

Now,

The ratio of the initial and final price = $210 : 280 = 3 : 4$

The ratio of the initial and final visitors = $6 : 5$

The ratio of the initial and final revenue = $3 \times 6 : 4 \times 5$
 $= 9 : 10$

Revenue increase 1 unit = Rupees 5000/- (Given)

So, the initial revenue of the theatre

$$= 9 \text{ units} = 9 \times 5000 = \text{Rupees } 45000/-$$

Hence, the correct option is A.

27) Answer: A

As we know that, Run = Average run rate \times Over

Note: $20\% = \frac{1}{5}$

The ratio of over taken by Australia and India to tie the match = $5 : 4$

Now, Australia: India = $5 \times 4 : 4 \times 4$;

20 over and 16 Over

Run = Run Rate (increase) \times Over (Decrease)

Run rate = $100/3\% = \frac{1}{3}$,

Ratio of run rate of Initial : Final = $3 : 4$,

Ratio of over taken to Initial : Final = $4 : 3$,

According to the question,

4 units = 16

1 unit = 4

So, 3 units = 12

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India can complete the = $(20 - 12) = 8$ over before.

Hence, the correct option is A.

28) Answer: C

Let he sold total slot = x

According to the question,

$$1500 + (1500 \times 20/100 + 20000 \times 20/100)x = 23000$$

$$\text{Or, } 1500 + (300 + 4000)x = 23000$$

$$\text{Or, } 4300x = 21500$$

$$\text{Or, } x = 5$$

He sold total slot 5 of 20000

$$5 \times 20000 = 100000$$

And he sold first slot 20000

$$\text{Then he total sold} = 100000 + 20000 = 120000$$

Hence, the correct option is C.

29) Answer: B

According to the question,

Male = 60% and female = 40%

$$\text{Ratio of Male to Female} = 60 : 40 = 3 : 2$$

Let Male = 300 and Female = 200

Out of 300 there are 25% are government employee = $300 \times 25\% = 75$

$$\text{Remaining} = 300 - 75 = 225$$

Out of 225 private employee and

$$= 4 : 5 : \Rightarrow 4x : 5x = 4 \times 25 : 5 \times 25 = 100 : 125$$

Now,

Female = 200, out of 200 60% are Government Employees = $200 \times 60\% = 120$

Out of 200 40% = 80; Out of 80, 60% are private employees = $80 \times 60\% = 48$

$$\text{And 40% are unemployed} = 80 \times 40\% = 32$$

So, Unemployed

$$\text{Or, } 125 \text{ Units} - 32 \text{ Units} = 6,510$$

$$\text{Or, } 93 \text{ Units} = 6,510$$

$$1 \text{ Unit} = 70$$

$$\text{So, } 195 \text{ Units} = 195 \times 70 = \text{Rupees } 13650$$

Hence, the correct option is B.

30) Answer: C

According to the given data in the question, draw a table as of the following,

Expenditure	Salary	Savings
$11.76\% = 2/17$	17	15
$20\% = 1/5$	5	4
$5.55\% = 1/18$	18	17
$46.66\% = 7/15$	15	8
Note: $11.76\% = 2/17$; Expenditure=2; Savings= 15; Salary = 17 and so on.	$17 \times 5 \times 18 \times 15 = 45$	$15 \times 4 \times 17 \times 8 = 16$

According to the question,

$$45 \times 1/9 = 5, 5 \text{ Units on his friends}$$

$$\text{Salary} = 45 \text{ Units and Savings} = 16 - 5 = 11 \text{ Units}$$

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So, 45 Units = 315,00, Therefore 11 units = Rupees 7700

Hence, the correct option is C.

31) Answer: C

According to the question,

$$\text{Sum} = 1/5 + 1/8 = 13/40$$

$$\text{Subtract} = 1 - 13/40 = 27/40 = 0.675$$

$$\text{Difference in answer} = 0.675 - 0.075 = 0.600$$

$$\text{Percentage error} = 0.600 \times 100 / 0.675 = 88.88\%$$

Hence, the correct option is C

32) Answer: B

Let total 5x match is played between England and India.

According to the question,

$$\text{Match won by England} = 80\% \text{ of } 5x = 4x$$

$$\text{And, Match won by India} = 20\% \text{ of } 5x = x$$

But, now India won 90 matches in a row and hence India's success rate of percentage increased to 60%.

$$\text{Now, Total match} = 5x + 90$$

$$x + 90 = (5x + 90) \times 60 / 100$$

$$\text{Or, } 5x + 450 = 15x + 270$$

$$\text{Or, } 10x = 180$$

$$x = 18$$

$$\text{So, total match} = 5x + 90 = 5 \times 18 + 90 = 180.$$

Hence, the correct option is B.

33) Answer: A

According to the question,

Let his score in the last exam is x,

$$\text{So, } [(74 + 67 + 62 + 60 + x) \times 100] / 500 > 70$$

$$\text{Or, } (263 + x) / 5 > 70$$

$$\text{Or, } 263 + x > 350$$

$$\text{Or, } x > 87$$

More than 87 marks have to be by Amit to meet the desired percentage of marks in all the five exams to be 70%.

Hence, The correct option is A.

34) Answer: D

According to the question,

In initial alloy,

$$\text{Gold} = 70\% \text{ of } 80 = 56 \text{ grams and}$$

$$\text{Zinc} = 80 - 56 = 24 \text{ grams,}$$

Let x gram of gold is added to the alloy,

$$56 + x / 80 = 90 / 100,$$

$$\text{Or, } 560 + 10x = 720 + 9x,$$

$$\text{Or, } x = 16 \text{ grams.}$$

Hence, the correct option is D.

35) Answer: C

According to the question,

Percentage of candidates failed only in,

$$\text{Math} = 52\% - 15\% = 37\%$$

$$\text{Only in Hindi} = 30\% - 15\% = 15\%$$

Percentage of students who failed in Math or Hindi or both of the subjects

$$= 37\% + 15\% + 15\% = 67\%$$

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So, the percentage of candidates who passed in both subjects = $100\% - 67\% = 33\%$

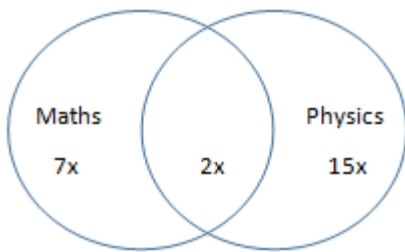
Let the total students be 100% then $33\% = 198$

So, $100\% = 198 \times 100 / 33 = 600$

Hence, the correct option is C.

36) Answer: A

We can go through the venn diagram required below by the help of given data in question.



Both Pass : Both fail = $y : 3y$

As per the question,

$$3y = \frac{2}{5} \times 15x$$

$$\text{Or, } y/x = 2/1$$

$$\text{Or, } y = 2x$$

Now, both pass: both fail = $2x : 6x$

$$\text{Fail in maths} = 30x - 9x = 21x,$$

$$\text{Now, } 21x = 210$$

$$\text{Or, } x = 210/21 = 10$$

$$\text{So, } 30x = 10 \times 30 = 300$$

The total number of students in the class is 300.

Hence, The correct option is A.

37) Answer: A

Let the maximum marks be x

According to the question,

$$33.45\% \text{ of } x + 23 = 44.45\% \text{ of } x - 32$$

$$\text{Or, } 44.45\% - 33.45\% = 32 + 23$$

$$\text{Or, } 11\% \text{ of } x = 55$$

$$\text{Or, } x = 55 \times 100 / 11 = 500$$

$$\text{So, passing marks} = (33.45 \times 500 / 100) + 23 = 190.25$$

$$\text{Now, passing \%} = 190.25 \times 100 / 500 = 38.05\%$$

Hence, the correct option is A.

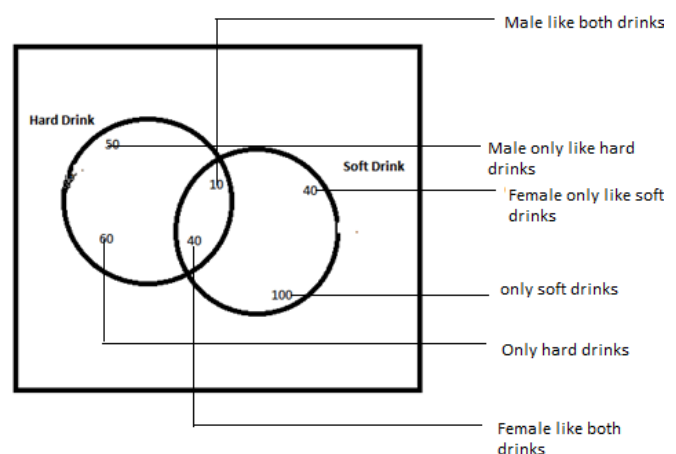
38) Answer: C

According to the question,

Let Male = 100

Female = 200

By the below venn diagram,



In the above venn diagram, Number of male only hard drink = 50,

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Female only like soft drink = 40

Male like both drinks = 10 and Female only like both drink = 40

Number of only hard drink = 60 and Number like only soft drink = 100

20% female like soft drink and hard drink = $200 \times 20 / 100 = 40$

Female like only soft and only hard drink = $100 \times 50 / 100 = 50$

Male only like soft drink = $50 - 10 = 40$

The ratio of female guest who likes an only soft drink and only hard drink = 5:3

$8x = 160$; $5x = 100$; $3x = 60$

Difference between male and female who likes only hard drink = 60Units - 50Units

By the rule of product constant rule,

10 Units \times 30 = 300 Units, So, $100 \times 30 = 3000$.

Hence, The correct option is C.

39) Answer: B

According to the question,

P = pressure n = number of molecules

T= temperature, V =Volume

P directly proportional to $n \times n \times T \times 1/v$

N = Decreases by = $50/3\% = -1/6$

T = Increases by = $12.5\% = +1/8$

V = Decrease by = $8.33\% = -1/12$

Now,

	Initial Pressure	Final pressure
$n \times n = -1/6$	36	25
$T = +1/8$	8	9
$V = -1/12$ (V is inversely proportional to pressure)	11	12
	88	75

Change in pressure = $88 - 75 = 13$

Percentage change in pressure

= $13 \times 100 / 88 = 14.77\%$

Hence, the correct option is B.

40) Answer: C

Let, total children = $100x$

Out of these 15% twins = $15 \times 2 = 30$

And $85 \times 1 = 85$

Total born = $85 + 30 = 115$,

Approximate percentage of the twins out of total children

= $30 \times 100 / 115 = 26.08\%$

Hence, the correct option is C.

41) Answer: A

According to the question,

Time= 3 years and Rate = $50/3\%$

Now,

$50/3\% = -1/6$ (Because the case of depreciation)

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Here, Initial = 6 and Final = 5,

Initial = $6 \times 6 \times 6 = 216$ and Final = $5 \times 5 \times 5 = 125$

216 Units = 108000

1 Unit = $108000/216 = 500$

Therefore, 125 Units = $500 \times 125 = 62,500$.

Hence, the correct option is A.

42) Answer: A

As per the given data in question,

In 15 litres of the first part,

Water = $15 \times 26.66\% = 15 \times 4/15 = 4$ litres

Note: $26.66\% = 4/15$

In 8 litres of the second type of liquid,

Water = $8 \times 25/100 = 2$ litres

The total amount of water = $4 + 2 = 6$ litres

Required % = $6 \times 100/23 = 600/23\%$

Hence, the correct option is A.

43) Answer: C

According to the question,

Alcohol = $600 \times 50/100 \times 3 = 100$ litres

Let, X litre of alcohol should be added,

Then, $(100 + X)/(600 + X) = 36/100 = 9/25$

Or, $2500 + 25X = 5400 + 9X$

Or, $16X = 2900$

Or, $X = 2900/16 = 181.25$

Hence, the correct option is C.

44) Answer: D

According to the question,

Mass of metal in lead ore = $12000 \times 80\% = 9600$ Kg.

Mass of Gold in metal = $5 \times 9600 / 6 \times 100 = 80$ Kg.

Mass of lead in ore = $9600 - 80 = 9,520$ Kg.

Hence, The correct option is D.

45) Answer: D

Let, Income of B is $100x$ then the income of A is $60x$.

Ratio of income of A and B = $60x : 100x = 3x : 5x$

And the expenditure of B is $100y$ then the expenditure of A is $75y$.

The ratio of expenditure of A and B = $3y : 4y$,

According to the question,

$3x = 4y \times 80\% = 4y \times 4/5, x : y = 16/15$.

As we know that, Savings = Income - Expenditure,

The income of A and B = $3x : 5x$;

$A = 3 \times 16 = 48$ and $B = 5 \times 16 = 80$,

And the expenditure of A and B = $3y : 4y$;

$A = 3 \times 15 = 45$ and $B = 4 \times 15 = 60$,

Now,

Savings of A = $48 - 45 = 3$ Units &

Savings of B = $80 - 60 = 20$ Units,

The difference in savings of A and B

= 20 Units - 3 Units = 17 Units,

17 Units = Rupees $5,100/-$ 1 Unit = Rupees $3,00/-$

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So, 20 Units = 300×20 = Rupees 6,000

Hence, The correct option is D.

46) Answer: A

According to the given data in the question, we go through the below table,

	Pulp	Water
Fresh Fruit	$20\% = 1 \times 2$	$80\% = 2 \times 4$
Dry Fruit	$40\% = 2 \times 1$	$60\% = 3 \times 1$

Because Pulp is constant in both the condition, New Ratio,

	Pulp	Water
Fresh Fruit	2	8
Dry Fruit	2	3

Now, Fresh Fruits, 10 Units = 30kg., 1 Unit = 3Kg. So, 5 Unit = 15 Kg.

47) Answer: C

According to the question,

As we know that $47.1/17\% = +8/17$,

Price of table = $17+8 = 25$ and Price of chair = 17,

Then price of 12 tables = $25 \times 12 = 300/-$

And price of 17 tables = $17 \times 15 = 255 /-$

Here, price of 17 tables is less than price of 12 tables by $300 - 255 = 45$

Required % = $(300 - 255) \times 100 / 300 = 15\%$ less.

Hence, the correct option is C.

48) Answer: B

According to the question,

Number of successful students in the first year,

$$= 5x \times 70/10 = 3.5x,$$

Number of successful students in the 2nd year,

$$= 7x \times 85.5/100 = 5.985x,$$

Number of successful students in the 3rd year,

$$9x \times 96.5/100 = 8.685x,$$

The total number of students who were successful during these three years taken together = $18.17x$,

$$\text{Required \%} = (18.17x) \times 100 / 21x = 86.52\%.$$

Hence, the correct option is B.

49) Answer: C

According to the given data in question, here we go through the below-derived table,

	Initial Army	Remaining Army
$20\% = -1/5;$	5	$5-1 = 4$
$35\% = -7/20;$	20	$20-7 = 13$
$50/3\% = -1/6$	6	$6-1 = 5$
	$5 \times 20 \times 6 / 60$	$4 \times 13 \times 5 / 26$

At the Initial = 60 Army and Remaining = 26 Army,

26 Units = 1757600, 1 Unit = 67600

So,

$$60 \text{ Units} = 60 \times 67600 = 4056000.$$

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Hence, the correct option is C.

50) Answer: B

Let the original consumption be 1 Unit, tax on it be 1 Rupee,

So, Revenue = $1 \times 1 = 1$ Rupees,

Note; $50/3\% = 50/300$.

New consumption = $(300 + 50/300) \times 1$ Rupees = $350/300$
= $7/6$ Unit,

Now, tax on 1 unit = $33.33\% = 1/3$ less,

New tax = $(1 - 1/3) = 2/3$

Tax on $7/6$ Unit = $(7/6) \times (2/3) = 7/9 = 0.7777$

Decreased Revenue = $1.00 - 0.77 = 0.3333$

Required % = $(3333/1 \times 10000) \times 100 = 33.33\%$

Hence, the correct option is B.

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