

Practice Exercise

Level - I

- 1.** In a public library there are 110,000 books, 40% of which are science books. It was decided to add 20,000 new books to the library. How many of the new books should be science books in order to bring the percentage of science books in the library up to 45%?
 (a) 15000 (b) 1500 (c) 1450 (d) 14500

2. A batsman scored 110 runs which included 3 boundaries and 8 sixes. What percent of his total score did he make by running between the wickets ?
 (a) 45% (b) $45\frac{5}{11}\%$
 (c) $54\frac{6}{11}\%$ (d) 55%

3. A student secures 90%, 60% and 54% marks in test papers with 100, 150 and 200 respectively as maximum marks. The percentage of his aggregate is:
 (a) 64 (b) 68
 (c) 70 (d) None of these

4. If two numbers are respectively 20% and 50% of a third number, what is the percentage of the first number to the second ?
 (a) 10 (b) 20 (c) 30 (d) 40

5. In an examination, 5% of the applicants were found ineligible and 85% of the eligible candidates belonged to the general category. If 4275 eligible candidates belonged to other categories, then how many candidates applied for the examination ?
 (a) 30,000 (b) 35,000
 (c) 37,000 (d) None of these

6. Deepa decided to donate 8% of her salary to an orphanage. On the day of donation she changed her mind and donated ₹ 2240 which was 80% of what she had decided earlier. How much is Deepa's salary?
 (a) ₹ 36000 (b) ₹ 42000
 (c) ₹ 35000 (d) ₹ 45000

7. When the price of a radio was reduced by 20%, its sale increased by 80%. What was the net effect on the sale?
 (a) 44% increase (b) 44% decrease
 (c) 66% increase (d) 75% increase

8. If the price of sugar is increased by 7%, then by how much per cent should a housewife reduce her consumption of sugar, to have no extra expenditure?
 (a) 7 over 107% (b) 107 over 100%
 (c) 100 over 107% (d) 7%

9. A salesman's terms were changed from a flat commission of 5% on all his sales to a fixed salary of ₹ 1,000 plus 2.5% commission on all sales exceeding ₹ 4,000. If his remuneration as per the new scheme was ₹ 600 more than by the first scheme, what were his sales worth?
 (a) 10,000/- (b) 11,000/- (c) 12,000/- (d) 14,000/-

10. An inspector rejects 0.08% of the metres as defective. How many metres will he examine to reject 2 metres?
 (a) 200m (b) 250m
 (c) 2500m (d) 3000m

11. A invested 10% more than B. B invested 10% less than C. If the total sum of their investment is ₹ 14450. how much did C get?
 (a) ₹ 5000 (b) ₹ 4800
 (c) ₹ 5100 (d) None of these

12. A sum of ₹ 4558 is divided among A, B and C such that A receives 20% more than C, and C receives 25% less than B. What is A's share in the amount ?
 (a) ₹ 1548 (b) ₹ 1720
 (c) ₹ 1290 (d) ₹ 1345

13. In an election between two candidates, 75% of the voters cast their votes, out of which 2% of the votes were declared invalid. A candidate got 9261 votes which were 75% of total valid votes. Find the total number of votes enrolled in that election.
 (a) 16080 (b) 16800
 (c) 18600 (d) 16008

14. A spider climbed $62\frac{1}{2}\%$ of the height of the pole in one hour and in the next hour it covered $12\frac{1}{2}\%$ of the remaining height. If the height of the pole is 192 m, then distance climbed in second hour is:
 (a) 3 m (b) 5 m
 (c) 7 m (d) 9 m

15. A number is increased by 10% and then reduced by 10%. After these operations, the number:
 (a) does not change (b) decreases by 1%
 (c) increases by 1% (d) increases by 0.1%

16. The difference between the value of a number increased by 25% and the value of the original number decreased by 30% is 22. What is the original number ?
 (a) 70 (b) 65
 (c) 40 (d) 90

17. A salesman is allowed $5\frac{1}{2}\%$ discount on the total sales made by him plus a bonus of $\frac{1}{2}\%$ on the sales over ₹ 10,000. If his total earnings were ₹ 1990, then his total sales (in ₹) were:
 (a) 30,000 (b) 32,000
 (c) 34,000 (d) 35,000

18. If 12% of 75% is greater than 5% of a number by 75, the number is
 (a) 1875 (b) 1890
 (c) 1845 (d) 1860

37. A city had a population of 30,00,000 in the beginning of 1999. Its average growth rate is 4% per year, but due to a massive earthquake in 2001, its population is reduced by 8% in that year. But it again maintained the same growth rate of 4% in following years. What will be the approx. population of the city at the end of 2003?
- (a) 32,06,460 (b) 34,68,420
 (c) 31,52,360 (d) 32,28,810
38. In a factory there are three types of machines M_1 , M_2 and M_3 which produces 25%, 35% and 40% of the total products respectively. M_1 , M_2 and M_3 produces 2%, 4% and 5% defective products, respectively. What is the percentage of non-defective products?
- (a) 89% (b) 97.1% (c) 96.1% (d) 86.1%
39. A person saves 6% of his income. Two years later, his income shoots up by 15% but his savings remain the same. Find the hike in his expenditure.
- (a) 15.95% (b) 15% (c) 14.8% (d) 15.5%
40. In the half yearly exam only 70% of the students were passed. Out of these (passed in half yearly) only 60% student are passed in annual exam. Out of those who did not pass the half yearly exam, 80% passed in annual exam. What percent of the students passed the annual exam?
- (a) 42% (b) 56%
 (c) 66% (d) None of these
41. Two vessels contain equal quantities of 40% alcohol. Anil changed the concentration of the first vessels to 50% by adding extra quantity of pure alcohol. Balu changed the concentration of the second vessels to 50% replacing a certain quantity of the solution with pure alcohol. By what percentage is the quantity of alcohol added by Anil more than that replaced by Balu?
- (a) 20% (b) 25%
 (c) 40% (d) Cannot be determined
42. Lagaan is levied on the 60% of the cultivated land. The revenue department collected total ₹ 3,84,4000 through the lagaan from the village of Sukhiya. Sukhiya, a very rich farmer, paid only ₹ 480 as lagaan. The percentage of total land of Sukhiya over the total taxable land of the village is:
- (a) 0.15% (b) 15%
 (c) 0.125% (d) None of these
43. In an election between 2 candidates, Bhiku gets 65% of the total valid votes. If the total votes were 6000, what is the number of valid votes that the other candidate Mhatre gets if 25% of the total votes were declared invalid?
- (a) 1625 (b) 1575
 (c) 1675 (d) 1525
44. A machine depreciates in value each year at the rate of 10% of its previous value. However, every second year there is some maintenance work so that in that particular year, depreciation is only 5% of its previous value. If at the end of the fourth year, the value of the machine stands at ₹ 1,46,205, then find the value of machine at the start of the first year.
- (a) ₹ 1,90,000 (b) ₹ 2,00,000
 (c) ₹ 1,95,000 (d) ₹ 2,10,000
45. After three successive equal percentage rise in the salary the sum of 100 rupees turned into 140 rupees and 49 paise. Find the percentage rise in the salary.
- (a) 12% (b) 22%
 (c) 66% (d) 82%
46. The salary of Anil and Vinit is 20% and 30% less than the salary of Dheeraj respectively. By what percentage is the salary of Anil more than the salary of Vinit?
- (a) 33.33% (b) 50%
 (c) 10% (d) 14.28%
47. In a certain town, at least 50% of the people read a newspaper. Among those who read a newspaper, at most 25% read more than one paper. Only one of the following statements follows from the statements given below. Which one is it?
- (a) At the most 25% read exactly one newspaper
 (b) At least 25% read all the newspaper
 (c) At the most 37½% read exactly one newspaper
 (d) At least 37½% read exactly one newspaper
48. Kajal spends 55% of her monthly income on grocery, clothes and education in the ratio of 4 : 2 : 5 respectively. If the amount spent on clothes is ₹ 5540/-, what is Kajal's monthly income? [SBI Clerk-2012]
- (a) ₹ 55,400/- (b) ₹ 54,500/-
 (c) ₹ 55,450/- (d) ₹ 55,650/-
 (e) None of these
49. 35 percent of a number is two times 75 percent of another number. What is the ratio between the first and the second number respectively? [SBI Clerk-2012]
- (a) 35 : 6 (b) 31 : 7
 (c) 23 : 7 (d) 32 : 9
 (e) None of these
50. Last year there were 610 boys in a school. The number decreased by 20 percent this year. How many girls are there in the school if the number of girls is 175 percent of the total number of boys in the school this year? [SBI Clerk-2012]
- (a) 854 (b) 848
 (c) 798 (d) 782
 (e) None of these
51. Aryan got 350 marks and Vidya scored 76 percent marks in the same test. If Vidya scored 296 marks more than Aryan, what were the maximum marks of the test? [SBI Clerk-2012]
- (a) 650 (b) 900
 (c) 850 (d) 950
 (e) None of these
52. A student was awarded certain marks in an examination. However, after re-evaluation, his marks were reduced by 40% of the marks that were originally awarded to him so that the new score now became 96. How many marks did the student lose after re-evaluation? [SBI Clerk-2012]
- (a) 58 (b) 68
 (c) 63 (d) 56
 (e) 64
53. 855 candidates applied for a job, out of which 80% of the candidates were rejected. How many candidates were selected for the job? [SBI Clerk-2012]
- (a) 684 (b) 151
 (c) 676 (d) 179
 (e) None of these

54. A shopkeeper purchased 200 bulbs for ₹ 10 each. However, 5 bulbs were fused and had to be thrown away. The remaining were sold at ₹ 12 each. What will be the percentage profit ? [SBI Clerk-2014]
 (a) 25 (b) 15
 (c) 13 (d) 17
 (e) None of these
55. Ajay spends 25 per cent of his salary on house rent, 5 per cent on food, 15 per cent on travel, 10 per cent on clothes and the remaining amount of ₹ 27,000 is saved. What is Ajay's income ? [SBI Clerk-2014]
 (a) ₹ 60,000 (b) ₹ 80,500
 (c) ₹ 60,700 (d) ₹ 70,500
 (e) None of these
56. The salary of an employee increases every year in the month of July by 10%. If his salary in May 2000 was ₹ 15,000, his salary in October 2001 was [SSC-Sub. Ins.-2012]
 (a) ₹ 16,500 (b) ₹ 18,000
 (c) ₹ 18,150 (d) ₹ 19,965
57. 72% of the students of a certain class took Biology and 44% took Mathematics. If each student took Biology or Mathematics and 40 took both, the total number of students in the class was [SSC-Sub. Ins.-2012]
 (a) 200 (b) 230
 (c) 250 (d) 320
58. In a big garden 60% of the trees are coconut trees, 25% of the number of coconut trees are mango trees and 20% of the number of mango trees are apple trees. If the number of apple trees are 1500, then the number of trees in the garden is : [SSC-Sub. Ins.-2013]
 (a) 48000 (b) 50000
 (c) 51000 (d) 45000
59. If $50\% \text{ of } (P - Q) = 30\% \text{ of } (P + Q)$ and $Q = x\% \text{ of } P$, then the value of x is: [SSC-Sub. Ins.-2013]
 (a) 30 (b) 25
 (c) 20 (d) 50
61. In an examination 75% candidates passed in English and 60% passed in Mathematics. 25% failed in both and 240 passed the examination. Find the total number of candidates. [SSC-Sub. Ins.-2014]
 (a) 492 (b) 300
 (c) 500 (d) 400
62. If $40\% \text{ of } \frac{4}{5} \text{ of } \frac{3}{4}$ of a number is 48, then what is 1% of the same number ? [SSC-Sub. Ins.-2014]
 (a) 20 (b) 2
 (c) 10 (d) 1
63. Two persons contested an election of Parliament. The winning candidate secured 57% of the total votes polled and won by a majority of 42,000 votes. The number of total votes polled is [SSC-MT-2013]
 (a) 4,00,000 (b) 5,00,000
 (c) 6,00,000 (d) 3,00,000
64. A number when reduced by 10% gives 30. The number is [SSC-MT-2013]
 (a) 35 (b) $33\frac{1}{2}$
 (c) $33\frac{1}{3}$ (d) 40
65. A team played 40 games in a season and won in 24 of them. What percent of games played did the team win ? [SSC 10+2-2012]
 (a) 70% (b) 40%
 (c) 60% (d) 35%
66. If $125\% \text{ of } x$ is 100, then x is : [SSC 10+2-2012]
 (a) 80 (b) 150
 (c) 400 (d) 125
67. In the annual examination Mahuya got 10% less marks than Supriyo in Mathematics. Mahuya got 81 marks. The marks of Supriyo is [SSC 10+2-2013]
 (a) 89 (b) 90
 (c) 87 (d) 88
68. Ram's income is greater than Shyam's income by 20%. Then the percent by which Shyam's income is less than Ram's income is [SSC 10+2-2013]
 (a) $16\frac{2}{3}$ (b) $18\frac{2}{5}$
 (c) $10\frac{1}{5}$ (d) $12\frac{1}{3}$
69. 1% of 1% of 25% of 1000 is [SSC 10+2-2014]
 (a) .025 (b) .0025
 (c) .25 (d) .000025

Level - II

1. A man buys a house for ₹ 100000 and rents it. He puts 12.5% of each month's rent aside for upkeep & repairs, pays ₹ 325 per year as taxes and realizes 5.5% annually on his investment. Find the monthly rent.
 (a) 550 (b) 554.76
 (c) 654.76 (d) 1620.45
2. When the cost of petroleum increases by 40%, a man reduces his annual consumption by 20%. Find the percentage change in his annual expenditure on petroleum.
3. A obtains $33\frac{1}{3}\%$ of the marks in a paper for which the maximum was 300. B is ahead of A by 40% of A's marks, while C is ahead of B by two-ninths of his own marks. How many marks does C get?
 (a) 180 (b) 140
 (c) 150 (d) 210

38. Recently I had gone to a locality called Shadigarh for conducting a survey about the number of married persons in the locality. The population of the locality is 7,200 and $\frac{1}{18}$ th of those are males and the rest females. If 40% of the males are married, find percentage of married females in the locality
 (a) $48\frac{1}{7}\%$ (b) $52\frac{4}{7}\%$
 (c) $62\frac{6}{7}\%$ (d) $71\frac{1}{7}\%$
39. Chintu is given a quadratic equation $ax^2 + bx + c = 0$ and is asked to make another quadratic equation from this with $a = 1$. Also one root of the second quadratic equation is same as one of the roots of the first equation but opposite in sign and the other root of the second equation is two times the second root of the first equation. Find the percentage change in the constant term of the second equation as compared to the first equation?
 (a) 200% increase (b) 300% decrease
 (c) 400% increase (d) 100% decrease
40. A salesgirl's terms were changed from a flat commission of 5% on all her sales to a fixed salary of ₹ 1000 plus 2.5% commission on all sales exceeding ₹ 4000. If her remuneration as per the new scheme was ₹ 600 more than that by the previous scheme, her total sales was [SBI PO-2011]
 (a) ₹10000 (b) ₹5000
 (c) ₹2000 (d) ₹12000
 (e) None of these
41. Six-eleventh of a number is equal to twenty-two percent of second number. Second number is equal to the one-fourth of third number. The value of the third number is 2400. What is the 45% of first number? [IBPS-PO-2011]
 (a) 109.8 (b) 111.7
 (c) 117.6 (d) 123.4
 (e) None of these
42. An HR Company employs 4800 people, out of which 45 percent are males and 60 percent of the males are either 25 years or older. How many males are employed in that HR Company who are younger than 25 years?
 [IBPS-PO-2011]
 (a) 2640 (b) 2160
 (c) 1296 (d) 864
 (e) None of these
43. In a test, a candidate secured 468 marks out of maximum marks 'A'. If the maximum marks 'A' were converted to 700 marks, he would have secured 336 marks. What were the maximum marks of the test? [IBPS-PO-2011]
 (a) 775 (b) 875
 (c) 975 (d) 1075
 (e) None of these
44. Sum of three consecutive numbers is 2262. What is 41% of the highest number? [IBPS-PO-2012]
 (a) 301.51 (b) 303.14
 (c) 308.73 (d) 306.35
 (e) 309.55
45. Akash scored 73 marks in subject A. He scored 56% marks in subject B and X marks in subject C. Maximum marks in each subject were 150. The overall percentage marks obtained by Akash in all the three subjects together were 54%. How many marks did he score in subject C?
 [IBPS-PO-2012]
 (a) 84 (b) 86
 (c) 79 (d) 73
 (e) None of these
46. In an examination, Raman scored 25 marks less than Rohit. Rohit scored 45 more marks than Sonia. Rohan scored 75 marks which is 10 more than Sonia. Ravi's score is 50 less than, maximum marks of the test. What approximate percentage of marks did Ravi score in the examination, if he gets 34 marks more than Raman? [IBPS-PO-2013]
 (a) 90 (b) 70
 (c) 80 (d) 60
 (e) 85
47. Mr Giridhar spends 50% of his monthly income on household items and out of the remaining he spends 50% on transport, 25% on entertainment, 10% on sports and the remaining amount of ₹ 900 is saved. What is Mr Giridhar's monthly income? [IBPS-PO-2013]
 (a) ₹6000 (b) ₹12000
 (c) ₹9000 (d) Cannot be determined
 (e) None of these
48. Rakesh got 273 marks in an examination and scored 5% more than the pass %. If Lokesh got 312 marks, then by what % above the pass mark did he pass the examination?
 [SSC CGL-2013]
 (a) 20% (b) 27%
 (c) 25% (d) 15%
49. The monthly salaries of A and B together amount to ₹ 40,000. A spends 85% of his salary and B, 95% of his salary. If now their savings are the same, then the salary (in ₹) of A is [SSC CGL-2014]
 (a) 10,000 (b) 12,000
 (c) 16,000 (d) 18,000
50. One litre of water is evaporated from 6 litres of a solution containing 5% salt. The percentage of salt in the remaining solution is [SSC CGL-2014]
 (a) $4\frac{4}{9}\%$ (b) $5\frac{5}{7}\%$
 (c) 5% (d) 6%