QUANTITATIVE APTITUDE

CHAPTER - 1
NUMBER SYSTEM

1. LCM of 18 and 27 is: [C]
A) 85 (B) 89 (C) 54 (D) 91

2. LCM of 87 and 145 is [B]
A) 1305 (B) 435 (C) 870 (D) 48

3. LCM of 455, 117, 338 is [B]
A) 10670 (B) 106470 (C) 104670 (D) 107470

4. LCM of 1/3, 5/6, 5/4, 10/7 is [A]
A) 10/7 (B) 10 (C) 10/11 (D) 11/10

5. HCF of 3/16, 5/12, 7/8 is: [C]
A) 3 (B) 0 (C) 1 (D) 2

6. Find the H.C.F of 12, 16, 18 and 24 [D]

A) 1 (B) 2 (C) 3 (D) 4

7. Find the H.C.F of 204, 1190 and 1445 [B]
A) 34 (B) 17 (C) 85 (D) 204

8. Find the H.C.F OF 54/9, $3\,^{9}/_{7}$ and 36/51 [B]
A) 17/6 (B) 6/153 (C) 6 (D) 17

9. The product of two numbers is 2025 and their HCF is 15, their LCM is: [C]
A) 2040 (B) 2010 (C) 135 (D) 30375

10. The least number which when divided by 16, 18, and 21, leave the remainder 3, 5 and 8 respectively is [D]
A) 982 (B) 893 (C) 1024 (D) 995

11. The least square number which divides 8, 12 and 18 is [D]
A) 100 (B) 121 (C) 64 (D) 144

12. The least number which, when divided by 8, 12 and 16, leave in each remainder 3, is [D]
A) 71 (B) 70 (C) 69 (D) 51

13. The least number which when added 3 to it, completely divisible by 8, 12, and 18 is [C]
A) 71 (B) 70 (C) 69 (D) 68

14. The least number which when diminished by 7 is divisible by 21, 28, 36 and 45 is [A]
A) 1267 (B) 1265 (C) 1261 (D) 68

15. Four bells begin to toll together respectively at the intervals of 8, 10, 12 and

16 seconds. After how many seconds will they toll together again? [C]
A) 246 seconds (B) 242 seconds (C) 240 seconds (D) 243 seconds

16. The product of two digit number is 2160 and their HCF is 12. The numbers are: [A]
A) (36, 60) (B) (12,180) (C) (96, 25) (D) (72, 30)

17. The greatest five digit number which is divisible by 32, 36, 40, 42 and 48 is: [D]
A) 90730 (B) 90725 (C) 90715 (D) 90720

18. The least four digit number which is divisible by 4, 6, 8, and 10 is [A]
A) 1080 (B) 1085 (C) 1075 (D) 1090

19. The greatest four digit number that have 144 for their HCF is [D]
A) 9930 (B) 9903 (C) 9935 (D) 9936

20. The least five digit number that has 144 as HCF is [B]
A) 10085 (B) 10080 (C) 10075 (D) 10070

21. The smallest number when increased by "1" is exactly divisible by 12, 18, 24, 32, and 40 is [B]
A) 1439 (B) 1440 (C) 1459 (D) 1449

22. A heap of coconuts is divided into groups of 2, 3 and 5 and each time one coconut is left over. The least number of coconuts in the heap is [A]
A) 30 (B) 41 (C) 51 (D) 61

23. The smallest number which when divided by 20, 25, 35 and 40 leaves a remainder of 14, 19, 29 and 34 respectively is [C]
A) 1994 (B) 1494 (C) 1394 (D) 1496

24. Find the least five digit number which is exactly divisible by 12, 15 and 18. [B]
A) 1080 (B) 10080 (C) 10025 (D) 11080

25. HCF and LCM of two numbers are 12 and 396 respectively. If one of the number is 36, then the other number is [C]
A) 36 (B) 66 (C) 132 (D) 264

26. Five bells first begin to toll together and then a intervals of 5, 10, 15, 20 and 25 seconds respectively. After what interval of time will they toll again together? [A]
A) 5 min (B) 5.5 min (C) 5.2 min (D) none

27. Least perfect square number, exactly divisible by 21, 36 and 56 is [D]
A) 3600 (B) 504 (C) 441 (D) 7056

28. In finding the H.C.F. of two numbers, the last divisor was 41 and the successive quotients, starting from the first, Where 2, 4 and 2. The numbers are: [D]
A) 700, 400 (B) 820, 360 (C) 800, 500 (D) 820, 369

29. A man was employed on the promise that he will be paid the highest wages per day. The contract money to be paid was Rs. 1189. Finally he was paid only Rs. 1073. For how many days did he actually work? [C]

A) 39 (B) 40 (C) 37 (D) 35

30. An officer was appointed on maximum daily wages on a contract money of Rs. 4956. But on being absent for some days, he was paid only Rs.3894. for how many days was he absent? [A]

A) 3 (B) 4 (C) 5 (D) 6

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CHAPTER – 2
RATIO & PROPORTION

1. 1: 3 = $1^2/_3$:x. The value of x is [2]
   1) 1 2) 3 3) 41/6 4) 5

2. What number has a 5: 1 ratio to the number 10? [2]
   1) 42 2) 50 3) 55 4) 62

3. If a:b =7:5, b:c=9: 11 Find a:b:c [2]
   1) 63: 14::55 2) 63:45:55 3) 14:14:15 4) 7:14:15

4. If a:b=3:4, b:c=7:9, c:d=5:7, Find a:d. [4]
   1) 15:12 2) 7:12 3) 3:11 4) 5:12

5. The inverse ratio of 3:2:1 is [4]
   1) 1:2:3 2) 2:3:1 3) 3:1:2 4) 2:3:6

6. The duplicate ratio of 3:4 is [3]
   1) 4:3 2) 6:8 3) 9:16 4) 3:4

7. The triplicate ratio of 1:2 is [2]
   1) 18:1 2) 1:8 3) 2:1 4) 1:2

8. The sub-duplicate ratio of 1:4 is [1]
   1) 1:2 2) 2:1 3) 1:4 4) 1:3

9. The greatest ration out of 2:3, 5:4. 3:2 and 4:5 is [2]
   1) 4:5 2) 3:2 3) 5:4 4) 2:3

10. The smallest ration out of 1:1, 2:1, 1:3 and 3:1 is [2]
    1) 3:1 2) 1:3 3) 2:1 4) 1:2

11. The third proportional to 1 and 2 is [3]

1) 2 2) 3 3) 4 4) 1

12. The fourth proportional to 12,14 and 18 is [1]
1) 21 2) 20 3) 22 4) 28/3

13. The mean proportional between 4 and 9 is [3]
1) 5 2) 3 3) 6 4) 4

14. The proportion of copper and Zinc in the brass is 13:7. How much zinc will there be in 100kg of brass? [2]
1) 20kg 2) 35kg 3) 55kg 4) 14kg

15. The ratio of two numbers is 2:3 and the sum of their cubes is 945. The difference of the numbers is [1]
1) 3 2) 4 3) 5 4) 6

16. The ratio of the number of ladies to gents at a party was 1:2 but when 2 ladies and 2 gents left, the ratio became 1:3. How many people were at the party originally? [3]
1) 36 2) 24 3) 12 4) 6

17. The first three terms of a proportion are 3,9 and 12. The fourth term is: [4]
1) 4 2) 6 3) 18 4) 36

18. A 70cm long wire is to be cut into two pieces so that one piece will be $2/5^{th}$ of the other, how many centimeters will the shorter piece be? [2]
1) 10cm 2) 20cm 3) 25cm 4) 30cm

19. 96 is divided into two parts in such a away that seventh part of first and ninth part of second are equal. Find the smaller part [3]
1) 38 2) 40 3) 42 4) 48

20. 1000 men have provisions for 15days. If 200 more men join them, for how many days will the provisions last now? [3]
1) 10.5 2) 11.5 3) 12.5 4) 10.4

21. A garrison of 400men had a provision for 31days. After 28 days 280 persons reinforcement leave the garrison. Find the number of days for which the remaining ration will be sufficient: [3]
1) 3 days 2) 8 days 3) 10 days 4) 6 days

22. An amount of money is to be divided between P, Q and R in the ratio of 3:7:12. If the difference between Q and R's share? [2]
1) Rs.2800 2) Rs.3000 3) Rs.2400 4) Rs.3200

23. The compound ratio of 2/3, 6/7, 1/3 and 1/8 is given by [2]
1) 1/32 2) 1/42 3) 1/16 4) 12/71

24. A, B and C ply a cricket match. The ratio of the runs scored by them in the match is A:B=2:3 and B:C=2:5. If the total runs scored by all of them are 75, the runs scored by B are [2]
1) 15 2) 18 3) 21 4) 24

25. A sum is divided among X,Y and Z in such a way that for each rupee X gets. Y gets 45paise and Z gets 30paise. If the share of Y is Rs.27, what is the total amount? [2]

1) Rs. 90 2) Ps. 105 3) Rs.96 4) Ps. 120

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CHAPTER – 3
AVERAGES

1. The averages of 2, 7, 6 and x is 5 and the average of 18, 1, 6, x and y is 10. What is the value of y?
A) 5 B) 10 C) 20 D) 30 [C]

2. The average of all odd numbers upto 100 is: [C]
A) 49 B) 49.5 C) 50 D) 51

3. The average of 7 consecutive numbers is 20. The largest of these numbers is: [C]
A) 22 B) 24 C) 20 D) 23

4. A family consists of grandparents, parents and three grandchildren. The average age of the grandparents is 67 years, that of the parents is 35 years and that of the grandchildren is 6 years. What is the average age of the family? [B]
A) 284/7 B) 31 5/7 C) 321/7 D) None of these

5. The average of five numbers is 27. If one number is excluded, the average becomes 25. The excluded number is: [C]
A) 25 B) 27 C) 35 D) 30

6. The average of 6 matches is 3.95. The average of two of them is 3.4, while the average of the other two is 3.85. What is the average of the remaining two numbers? [B]
A) 4.5 B) 4.6 C) 4.7 D) 4.8

7. The average runs of a cricket player of 10 innings was 32. How many runs must he make in his next innings so as to increase his average of runs by 4? [D]
A) 2 B) 4 C) 70 D) 76

8. Of the four numbers, whose average is 60, the first is one-fourth of the sum of the last three. The first number is: [A]
A) 15 B) 45 C) 48 D) 60.25

9. The average age of 15 students of a class is 15 years. Out of these, the average age of 5 students is 14 years and that of the other 9 students is 16 years. The age of the 15^{th} students is: [A]
A) 11 years B) 14 years C) 15 years D) 10 years

10. The average age of 36 students in a group is 14 years. When teacher's age is included to it, the average increases by 1. What is the teachers age in years? [A]
A) 31 B) 36 C) 51 D) data inadequate

11. 3 years ago, the average of a family of 5 members was 17 years. A baby having been born, the average age of the family is the same today. The present age of the baby is: [A]

A) 2 B) 1 C) 3 D)

12. The average of 17 numbers is 10.9 If the average of first nine is 10.5 and that of the last nine is 11.4, the middle number is [A]

A) 11.8 B) 11.4 C) 10.9 D) 11.7

13. The average monthly expenditure of a family was Rs.2,200 during first 3 months, Rs.2,550 during next 4 months and Rs.3,120 during last 5 months of the year. If the total saving during the year was Rs.1,260, find average monthly income. [C]

A) Rs.3,960 B) Rs.760.8 C) Rs.2,805 D) Rs.3,125

14. 30 pens and 75 pencils were purchased for Rs.510. If the average price of a pencil was Rs.2.00, find the average price of a pen. [A]

A) Rs.12 B) Rs.15 C) Rs.19 D)Rs.25

15. The average age of the husband and wife who were married 7 years ago was 25 years then. The average age of the family including the husband, wife and the child born during the interval is 22 years now. How old is the child now? [A]

A) 2years B) 3.5years C) 1years D) 4years

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CHAPTER – 4
PERCENTAGE

1. 25% of 30% of 45% is equal to [1]

1) 0.03375 2) 0.3375 3) 3.375 4) 33.75

2. 40% of a number is more than 20% of 650 by 190. Find the number [3]

1) 600 2) 700 3) 800 4) 900

3. How much 60% of 50 is greater than 40% of 30? [1]

1) 18 2) 13 3) 15 4) 20

4. 85% of a number is added to 24, the result is the same number. Find the number [4]

1) 150 2) 140 3) 130 4) 160

5. 96% of the population of a village is 23040. The total population of the village is [2]

1) 32256 2) 24000 3) 24936 4) 25640

6. If exceeds x by 20%. Then x is how much percent less than y? [3]

1) 16% 2) $16^{1}/_{3}\%$ 3) $16^{2}/_{3}\%$ 4) $16^{2}/_{5}\%$

7. If the price has fallen by 10%. By what percent of its consumption be increased so that the expenditure may be the same as before? [3]

1) 11% 2) 10% 3) $11^{1}/_{9}\%$ 4) $9^{1}/_{11}\%$

8. Two numbers are respectively 20% and 25% more than a third number. Then smaller number is how much percentage of the bigger: [1]

1) 80% 2) 85% 3) 96% 4) 125%

9. The salary of a typist was first raised by 10% and then the same was reduced by 5%. If he presently draws Rs. 1045. What was his original salary? [3]

1) Rs. 900 2) Rs.950 3) Rs.1000 4) Rs.975

10. The tax on a commodity is diminished by 20% and its consumption increases by 15%. The effect on revenue is? [2]

1). It increases by 8% 2) It decreases by 8%

3) No changes in revenue 4) It increases by 10%

11. If the numerator of a fraction is increased by 20% and its denominator is diminished by 25% value of the fraction is 2/15. Find the original fraction. [1]

1) 1/12 2) 1/8 3) 1/6 4) 1/7

12. An engineering student has to secure 36% marks to pass. He gets 130 marks and fails by 14 marks. The maximum No. of marks obtained by him is [2]

1) 300 2) 400 3) 350 4) 500

13. 5% people of a village in Sri Lanka died by bombardment, 15% of the remainder left the village on account of fear. If now the population is reduced to 3553. How much was it in the beginning?

1) 3800 2) 4200 3) 4400 4) 5500 [3]

14. A and B's salaries together amount to Rs. 2000. A spends 95% of his salary and B spends 85% of his. If now their savings are the same, what is A's salary? [4]

1) 500 2) 750 3) 1250 4) 1500

15. In a factory, there are 40% technicians and 60% non-technicians. If the 60% of the technicians and 40% of non-technicians are permanent employees, then the percentage of workers who are temporary is [3]

1) 32% 2) 42% 3) 52% 4) 62%

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CHAPTER – 5
PROFIT & LOSS

1. A cycle is bought for Rs.900 and sold for Rs. 1080. Find the gain percent? [2]
   1) $16^{2}/_{3}\%$ 2) 20% 3) 18% 4) 25%

2. An article is bought for Rs. 675 and sold for Rs. 900. Find the gain percent? [3]
   1) $16^{2}/_{3}\%$ 2) 30% 3) $33^{1}/_{3}\%$ 4) $33^{1}/_{6}\%$

3. An article is bought for Rs.600 and sold for Rs.500. Find the loss percent? [4]
   1) $16^{4}/_{3}\%$ 2) 100/3% 3) 16% 4) $16^{2}/_{3}\%$

4. The Cost price of a radio is Rs. 1500 and it was sold for Rs. 1230. Find the loss% [1]
   1) 18% 2) 9% 3) 15% 4) 6%

5. A watch was sold at a loss of 10%. If it was sold for Rs. 140 more, there would have been a gain of 4%. What is the cost price? [1]
   1) 1000 2) 1140 3) 860 4) 760

6. The sale price of Sarees listed for Rs.400 after successive discounts 10% and 5% is? [3]
   1) 357 2) 340 3) 342 4) 338

7. The list price of an article is Rs.65. A customer pays Rs.56.16 for it. He was given two successive discounts, one of them being 10%. The other discount is? [2]
   1) 3% 2) 4% 3) 5% 4) 6%

8. A single discount equivalent to the discount series of 20%, 10% and 5% is? [3]
   1) 25% 2) 30% 3) 31.6% 4) 33.5%

9. What profit percent is made by selling an article at a certain price. If by selling at 2/3rd. of that price, there would be a loss of 20%? [1]
   1) 20% 2) 25% 3) $13^{1}/_{30}\%$ 4) 12%

10. A trader bought a car at 20% discount on Its original price. He sold it at a 40% Increase on the price he bought it. [3]
   1) 10% 2) 11% 3) 12% 4) 15%

11. A man sells a horse for Rs.800 and loses something. If he had sold It for Rs. 980, his gain would have been double the former loss. Find the cost price of the horse? [4]
   1) Rs.900 2) Rs.875 3) 850 4) 860

12. By selling a house for Rs.45000, it was found that 1/8 of the outlay was gained, what ought the selling price have been [2]
   1) Rs.38750 2) Rs.38000 3) 40000 4) 42000

13. If a man lost 40% by selling oranges at the rate of 12 a rupee at how many a rupee must he sell them to gain 44%? [2]
   1) 7 2) 8 3) 9 4) 10

14. By selling 150 mangoes. A fruit-seller gains the selling price of 30 mangoes. Find his gain percent? [2]
1) 20% 2) 25% 3) 18% 4) 30%

15. The C.P of 15 books is equal to the S.P. of 18 books. Find his gain or loss percent. [1]
1) $16^{2}/_{3}$% loss 2) 100/3% loss 3) 50/3% profit 4) $16^{2}/_{3}$% profit

16. By selling 12 pencils for a rupee a man loses 20%. How many for a rupees should he sell in order to gain 20%? [8]
1) 8 2) 9 3) 16 4) 12

17. The cost price of 13 articles is equal to the selling price of 11 articles. Find the profit percent?
1) $15^{5}/_{15}$% 2) $18^{2}/_{11}$% 3) $16^{2}/_{3}$% 4) 30% [2]

18. By selling 50 meters of cloth. I gain the selling price of 15 metres. Find the gain percent?
1) 35% 2) 30% 3) 45% 4) $42^{6}/_{7}$% [4]

19. Ram sold two bicycles each for Rs. 990. If he made 10% profit on the first and 10% loss on the second. What is the total Cost of both bicycles? [1]
1) Rs. 2000 2) Rs. 1980 3) Rs. 1891 4) Rs. 1750

20. A tradesman by means of his false balance defrauds to the extent of 20% in buying goods as well as by selling the goods. What percent does he gain on his outlay? [3]
1) 20% 2) 45% 3) 44% 4) 48%

21. A dishonest dealer professes to sell goods at the cost price but uses a weight of 800grams per kg. what is his gain percent? [2]
1) 20% 2) 25% 3) 30% 4) 15%

22. Ram professes to sell his goods at the cost price but uses of 900 grams instead of a kg. What is the gain percent? [3]
1) 11% 2) $11^{2}/_{9}$% 3) $11^{1}/_{9}$% 4) 10%

23. A dishonest dealer professes to sell his goods at cost price but uses a false weight and gain 25% . Find his false weightage ? [3]
1) 700gms 2) 750gms 3) 800gms 4) 850gms

24. A man purchases 8 pens for Rs.9 and 9 pens for Rs.8. how much profit or loss does he make?
1) 20.98% profit 2) 20.98% loss 3) 20.89% profit 4) 20.89% loss [2]

25. A reduction of 40% in the price of bananas would enable a man to obtain 64 more for Rs.40. what is reduced price per dozen? [1]
1) Rs.5 2) Rs.4 3) Rs.2 4) Rs.3

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CHAPTER – 6
PARTNERSHIP

1. A, B and C invested Rs. 6300 Rs. 4200 and Rs. 10,500 respectively, in a partnership business. Find the share of A in profit of Rs. 12,100 after a year. [1]

1) Rs. 3630 2) Rs. 2840 3) Rs. 3200 4) Rs. 5600

2. A,B,C and D enter into partnership. A subscribes 1/3 of the capital, B ¼, C 1/5 and D the rest. How much share did A get in a profit of Rs. 2460? [3]

1) Rs.480 2) Rs. 615 3) Rs. 820 4) Rs. 740

3. If Rs. 3250 be divided among Ram, Shyam and Mohan in the ratio of ½: 1/3: ¼ then the share of each is [1]

1) Ram=Rs. 1500. Shyam=Rs.1000, Mohan=Rs. 750
2) Ram Rs. 2500. Shyam=Rs. 500. Mohan=Rs. 250
3) Ram = Rs. 1200, Shyam = Ps. 1300, Mohan = Ps. 750
4) none.

4. A and B entered into a partnership investing Rs. 25000 and Rs. 30000 respectively. After 4 months C also joined the business with an investment of Rs. 35000. What is the share of C in an annual profit of Rs. 47000? [4]

1) Rs. 18000 2) Rs. 15000 3) Rs. 17000 4) Rs. 14000

5. A and B enter into partnership with capital as 7:9. At the end of 8 months. A withdraws, if they receive the profits in the ratio of 8:9 find how long B's capital was used [4]

1) 6 months 2) 8 months 3) 10 months 4) 7 months

6. A and B began business with Rs. 3000 and Rs. 4000 After 8 months. A withdraws Rs. 1000 and B advance Rs. Rs. 1000 more. At end of the year. Their profits amounted to Rs. 630 find the share of A.

1) Rs. 240 2) Rs. 350 3) Rs.340 4) Rs.390 [1]

7. A starts business with a capital of Rs. 1200 B and C join with some investments alter 3 and 6 months respectively. If at the end of a year. The profit is divided in the ratio 2:3:5 respectively. What is Bs investment in the business? [1]

1) Rs. 2400 2) Rs. 1800 3) Rs. 3600 4) Rs. 6000

8. A, B and C together started a business. A invested Rs. 6000 for 5 months B invested Rs. 3600 for 6 months and C Rs. 7500 for 3 months, If they get a total profit of Rs. 7410. Find the share of A

1) Rs. 3750 2) Rs. 3000 3) Rs. 3220 4) Rs. 2160 [2]

9. If 6 (As capital) = 8 (B's capital) = 10 (C's capital). Then the ratio of their capitals is: [3]

1) 3:4:5 2) 12:15:20 3) 20:15:12 4) 6:8:10

10. A.B and C are partners in a business. Their capitals are respectively Rs. 5000. Rs. 6000 and Rs. 4000. A gets 30% of the total profit for managing the business. The remaining profit is divided among the three in the ratio of their capitals. In the end of the year, the profit of A is Rs. 200 more than the sum of the profits of B and C. Find the total profit. [4]

1) Rs. 4500 2) Rs. 5200 3) Rs. 1800 4) Rs. 3000

11. A,B and C entered into a partnership. A invested Rs. 6500 for 6 months. B invested Rs. 8400 for 5 months and C invested Rs. 10000 for 3 months. A is a working partner and gets 5% of the total profit for the same. Find the share of C in a total profit of Rs. 7400 [2]

1) Rs. 1750 2) Rs. 1900 3) Rs. 8600 4) Rs. 10300

12. A began business with Rs. 4500 and was joined afterwards by B with Ps. 5400. When did B join if the profits at the end of the year were divided in the ratio of 2:1 [3]

1) 4 months 2) 6 months 3) 7 months 4) 9 months

13. A,B and C rent a pasture for Rs. 870. A put in 12 horses for 8 months. B 16 horses for 9 months and C 18 horses for 6 months. How much should C pay [1]

1) Rs. 270 2) Rs. 185 3) Rs. 215 4) Rs. 380

14. Two persons A and B take a field on rent. A puts on it 21 horses for 3 months and 15 cows for 2 months and puts 15 cows for 6 months and 40 sheep for 71/2 months. If in one day. 3 horses eat as much as 5 cows and cows as much as 10 sheep. What part of the rent should A pay? [1]

1) $1/3^{rd}$ 2) $2/5^{th}$ 3) $2/3^{rd}$ 4) $1/5^{th}$

15. A, B and C are partners. A receives 2/3 of the profits, B and C dividing the remainder equally. A's income is increased by Rs. 200 when the rate to profit rises from 5 to 7 percent. Find the capital of B [3]

1) Rs. 2450 2) Rs. 3600 3) Rs. 2500 4) Rs. 3100

16. Three persons invested Rs. 9000 in a joint business. The second person invested Rs. 1000 more then the first and the third Rs. 1000 more than second. After two years. They gained Rs. 5400. How much will third person get? [1]

1) Rs. 2400 2) Rs. 3600 3) Rs. 2850 4) Rs. 2000

17. A, B and C enter into partnership. A invests some money at the beginning, B invests double the amount after 6 months, and C invests thrice the amount after eight months. If the annual agin be Rs. 18000. As share is [3]

1) Rs. 7500 2) Rs.7200 3) Rs. 6000 4) Rs. 5750

18. A and B rent a pasture for 10 months. A put in 80 cows for 7 months. How many can B put in for the remaining for 3 months, if he pays half as much gain as A? [4]

1) 120 2) 180 3) 200 4) 280

19. A and B put in Rs. 300 and Rs. 400 respectively into a business. A reinvests into the business his share of the first year's profit of Rs. 210 where as B does not. In what ratio should they divide the second year's profit? [1]

1) 39:40 2) 40:39 3) 3:4 4) 4:3

20. A and B invest Rs. 3000 and Rs. 4000 respectively in a business. If A doubles his capital after 6 months. In what ratio should A and B divide that year's profit? [2]

1) 9:10 2) 9:8 3) 3:4 4) 39:49

21. In a partnership between A, B and C. A's capital is Rs. 5000. If his share of a profit of Rs. 800 is Rs 200 and C's share is Rs. 130, what is B's capital [4]

1) Rs. 3250 2) Rs. 6250 3) Rs. 10250 4) Rs. 11750

22. A and B start a business jointly. A invests Rs. 16000 for 8 months and B remains in the business for 4 months. Out of the total profit B claims $2/7^{th}$ share. How much money is contributed by B [2]

1) Rs. 10000 2) Rs. 12800 3) Rs. 6000 4) Rs. 8000

23. The ratio of investments of two partners P and Q is 7:5 and the ratio of their profits is 7:10 If P invested the money for 5 months, find for how much time did Q invest the money [2]

1) 7 months 2) 10 months 3) 9 months 4) 11 months

24. A is a working partner and B, a sleeping partner in the business. A puts in Rs. 15000 and B Rs. 25000 A receives 10% of the profit for managing the business the rest being divided in proportion of their capitals. Out of a total of Rs. 9600, money received by A is [4]

1) Rs. 3240 2) 3600 3) Rs. 3800 4) Rs. 4200

25. Krishan and Nandan jointly started a business. Krishan invested three times as Nandan did and invested his money for double time as compared to Nandan. Nandan earned Rs. 4000. If the gain is proportional to the money invested and the time for which the money is invested then the total gain was [4]

1) Rs. 16000 2) Rs. 20000 3) Rs. 24000 4) Rs. 28000

CHAPTER – 7

SIMPLE & COMPOUND INTEREST

1. Find the principle on a certain sum of money at 5% per annum for 2 2/5 years if the amount being Rs. 1120. [1]

1) Rs. 1000 2) Rs. 1100 3) Rs. 1050 4) Rs.1200

2. What sum of money will produce Rs. 70 as simple Interest in 4 years at 3 ½ percent?

1) Rs. 525 2) Rs. 500 3) Rs. 550 4) Rs. 555 [2]

3. At what rate percent on simple interest will Rs. 750 amount to Rs. 900 in 5 years?

1) 5% 2) 3 ½% 3) 4% 4) 5 ½% [3]

4. What is the rate per cent when the simple interest on Rs. 800 amounts to Rs. 160 in 4 years?

1) 5% 2) 6% 3) 4 ½% 4) 3 ½% [1]

5. Find the simple interest on Rs. 500/- for 9 months at 6 paise per month? [2]

1) Rs. 3.45 2) Rs. 2.70 3) Rs. 2.75 4) Rs. 3.24

6. A certain sum amounts to Rs. 1725 in 3 years and Rs. 1875 in 5 years. Find the rate % per annum? [2]

1) 3% 2) 5% 3) 6% 4) 4%

7. At what rate per cent on simple interest will a sum of money double it in 30 years?

1) 3 1/3 % 2) 3 ½ % 3) 4% 4) 4 ½% [1]

8. A certain sum of money at simple interest amounted to Rs. 840 in 10 years at 3% per annum. Find the sum [4]

1) Rs. 500 2) Rs. 515 3) Rs. 525 4) None

9. In what time a sum of money double itself at 3% per annum simple interest?

1) 29 years 2) 33 1/3 years 3) 23 1/3 years 4) 13 1/3 years [2]

10. The simple interest on a sum of money will be Rs. 600 after 10 years. If the principal is trebled after 5 years what will be the total interest at the end of the tenth year?

1) Rs. 800 2) Rs. 900 3) Rs. 1200 4) Rs. 1500 [3]

11. Sonika deposited Rs. 8000 which amounted to Rs. 9200 after 3 years at simple interest. Had the interest been 2% more. She would get how much? [1]

1) Rs. 9680 2) Rs. 9860 3) Rs. 9380 4) Rs. 9800

12. If X is the interest on y and y is the Interest on z, the rate and time is e same on both the cases. What is the relation between x, y and z? [3]

1) xyz=1 2) $x^2=yz$ 3) $y^2=xz$ 4) $z^2=xy$

13. Rs. 2500 are divided into two parts such that if one part be put out at 5% simple interest and the other at 6%, the yearly annual income may be Rs. 140. How much was lent at 5%. [1]

1) Rs. 1500 2) Rs. 1200 3) Rs. 1300 4) Rs. 1000

14. If Rs. 1 amounts to Rs. 9 over a period of 20 years. What is the rate of simple interest?

1) 26 2/3% 2) Rs. 30% 3) 27 ½% 4) 40% [4]

15. Rs. 4000 was divided into two parts in such a way that when first part was invested at 3% and the second at 5%, the whole annual interest from both the Investments be Rs. 144. How much was put at 3%? [3]

1) Rs. 2500 2) Rs. 2700 3) Rs. 2800 4) Rs. 5000

16. If rupee one produces rupees nine over a period of 40 years, find the rate of simple interest. [4]

1) 20% 2) 10% 3) 15% 4) 22 ½%

17. A certain sum of money doubles itself in 10 years. In how many years will it treble itself at the same rate? [1]

1) 20 years 2) 15 years 3) 30 years 4) 17 ½ years

18. Rs. 1500 are divided into two parts such that if one part is invested at 6% and the other at 5% the whole annual Interest from both the sum be Rs. 85. How much was lent at 5% [4]

1) Rs. 1000 2) Rs. 750 3) Rs. 600 4) Rs. 500

19. The simple interest on a sum of money is 4/9 of the principal and the number of years is equal to the rate percent. Find the rate and the time. [1]

1) 6 2/3 years : 6 2/3% 2) 5 ½ years ; 5 1/3%

3) 4 2/3 years ; 4 2/3% 4) none

20. In what time will Rs. 4000 lent at 3% per annum on S.I earn as much interest as Rs. 5000 will earn in 5 years at 4% p.a. On S.I. [1]

1) 8 1/3 years 2) 9 years 3) 7 ½ years 4) 7 1/3 years

21. Find the compound interest on Rs. 8000 at 5% per annum for 3 years when C.I is reckoned yearly. [1]

1) Rs. 1261 2) Rs. 1440 3) Rs. 1185 4) Rs. 1346

22. If Rs. 7,500 are borrowed at C.I at the rate of 4% per annum, then after 2 years the amount to be paid is [4]

1) Rs. 8,082 2) Rs. 7,800 3) Rs. 8,100 4) Rs. 8,112

23. Find out the C.I on Rs. 5000 at 4% p.a. compounded half-yearly for one and half year

1) Rs. 420.20 2) Rs. 319.06 3) Rs. 306.04 4) Rs. 294.75 [1]

24. Rs.8000 become Rs. 9261 in a certain interval of time at the rate of 5% per annum of C.I Find the time [4]

1) 4 years 2) 6 years 3) 2 years 4) 3 years

25. At the end of three years what will be the compound interest at the rate of 10% p.a. on an amount of Rs. 20000? [1]

1) Rs. 6620 2) Rs. 6500 3) Rs. 6800 4) Rs. 6400

CHAPTER – 8

PROBLEMS ON AGES & NUMBERS

1. The respective ages of a father and his son are 41 and 16 years. In how many years will the father be twice as old as his son? [B]

(A) 19 years (B) 9 years (C) 15 years (D) 10 years

2. The ratio of ages of Rani and Vinita is 3:5. The difference in their ages is 12 years. Then the age of Vinita is [D]

(A) 20 years (B) 15 years (C) 18 years (D) 30 years

3. The ages of A and B are in the ratio 3:5. After 9 years the ratio of their ages will be 3:4. The present age of B is [B]

(A) 9 years (B) 15 years (C) 20 years (D) 16 years

4. A's mother was four times as old as A ten years ago. After 10 years she will be twice as old as A. Then, A's present age is [C]

(A) 30 years (B) 25 years (C) 20 years (D) 15 years

5. The ratio of the father's age to the son's age is 4:1. The product of their ages is 196. The ratio of their ages after 5 years will be: [C]

(A) 3:1 (B) 10:3 (C) 11:4 (D) 14:5

6. In 10 years, A will be twice as old as B was 10 years ago. If A is now 9 years older than B, find the present age of B. [A]

(A) 39 (B) 27 (C) 45 (D) 26

7. A is as much younger than B as he is older than C. If the sum of B's and C's ages is 40 years, find the age of A. [D]

(A) 40 years (B) 10 years (C) 25 years (D) 20 years

8. The ages of Ram and Mohan differs by 16 years. Six years ago, Mohan's age was thrice as that of Ram's. Then Ram's present age is [14]

(A) 15 years (B) 20 years (C) 14 years (D) 30 years

9. A father is 4 times as old as his son; in 20 years he will be only twice as old as his son. Then the respective ages of father and son are [A]

(A) 40, 10 years (B) 80, 20 years (C) 60, 15 years (D) 48, 12 years

10. $3/4^{th}$ of $1/3^{rd}$ of $4/5^{th}$ of a number is 80, find that number [D]

(A) 300 (B) 80 (C) 14 (D) 400

11. 4/5 of number exceeds its 2/3 rd by 20. Find the number [A]

(A) 150 (B) 3/2 (C) 160 (D) 300

12. Sum of two numbers is $1/3^{rd}$ of $1/5^{th}$ of 195 and their product is $1/6^{th}$ of $1/4^{th}$ of 960. Find $1/3^{rd}$ of the difference between them. [C]

(A) 1 (B) 9 (C) 3 (D) 27

13. In an examination, a student was asked to find $4/5^{th}$ of a number. By mistake, he found $5/4^{th}$ of it and his answer was 180 more than the correct answer. Find the given number.

(A) 80 (B) 890 (C) 400 (D) 500 [A]

14. $4/5^{th}$ of a number exceeds its $2/3^{rd}$ of $9/10^{th}$ by 120. Find the number [A]

(A) 600 (B) 140 (C) 800 (D) 660

15. At an election a candidate who gets $3/4^{th}$ of the total votes, is elected by a majority of 2000 votes. The total number of votes polled and the number of votes secured by the candidate who was elected, are respectively. [A]

(A) 4000, 3000 (B) 8000, 6000 (C) 4500, 2500 (D) 5000, 3000

CHAPTER – 9

TIME AND WORK

1. If A can do a work in 4 days and B alone can do it in 6 days. In how many days A and B together can do the work? [A]

(A) 2 2/5 days (B) 3 2/5 days (C) 2 2/3 days (D) 2 3/5 days

2. A and B together can do a work in 8 days and A alone can do it 12 days. In how many days B alone do it? [C]

(A) 20 days (B) 16 days (C) 24 days (D) 28 days

3. A and B can do a piece of work in 24 days. B and C in 30 days. C and A in 40 days. How long would all of them take to do the same work? [A]

(A) 20 days (B) 25 days (C) 30 days (D) 35 days

4. A and B can do a work in 25 days and 20 days respectively. They together under took to do a piece of work for Rs. 900. What is the share of B? [D]

(A) Rs. 450 (B) Rs. 550 (C) Rs. 300 (D) Rs. 500

5. A can do a work in 12 days and B alone can do the same work in 16 days. In how many days A and B together can do the work? [C]

(A) 28 (B) 24 (C) 6 6/7 (D) 6 1/7

6. A, B and C and do a work in 15, 20 and 12 days respectively. In how many days can they together complete the work? [B]

(A) 10 days (B) 5 days (C) 47 days (D) 12 days

7. Anand and Sanjeev together can finish a work in 8 days. Anand alone can do it in 12 days. How many days will Sanjeev alone take to complete the same work? [B]

(A) 16 (B) 24 (C) 4 (D) none

8. Mohan finished 1/5 of the work in 10 days. In how many days, will he finish the remaining work? [D]

(A) 50 days (B) 30 days (C) 20 days (D) 40 days

9. A and B can do a work in 12 days, B and C in 15 days, C and A in 20 days. If A, B and C work together, they will complete the work in: [C]

(A) 5 days (B) 3 days (C) 10 days (D) 8 days

10. A and B can do a work in 8 days, B and C in 12 days, C and A in 20 days. A, B and C together can finish it in 6 days. A and C together will do it in: [D]

(A) 4 days (B) 12 days (C) 6 days (D) 8 days

11. A and B can do a work in 72 days, B and C in 120 days, C and A in 20 days. A and C can do it in 90 days. In what time can A alone do it? [C]

(A) 80 days (B) 100 days (C) 120 days (D) 150 days

12. A and B can do a work in 5 days, B and C in 7 days, C and A in 20 days. A and C can do it in 4 days. Who among these will take the least time if put to do it alone? [A]

(A) A (B) B (C) C (D) Data inadequate

13. A can do a piece of work in 4 hours, B and C together can do it in 3 hours, while A and C together can do it in 2 hours. How long will B alone take to do it? [C]

(A) 8 hours (B) 10 hours (C) 12 hours (D) 24 hours

14. A can do a certain work in the same time in which B and C together can do it. If A and B together could do it in 10 days and C alone in 50 days, then B alone could do it in:

(A) 15 days (B) 20 days (C) 25 days (D) 30 days [C]

15. A can do a work in 15 days and B alone can do it in 20 days. If they work on it together for 4 days, then the fraction of the work that is left is: [D]

(A) ¼ (B) 1/10 (C) 7/15 (D) 8/15

CHAPTER – 10

TIME & DISTANCE

1. A car covers a distance of 270 km in 15hrs. What is the speed in mps? [B]

(A) 10 (B) 5 (C) 18 (D) 20

2. A bicycle covers 15m in 12sec. what is its speed in kmph? [C]

(A) 9 (B) 4 (C) 4.5 (D) 16

3. A car covers a distance in 45 min. if it runs at a speed of 60kmph. The speed at which the car must run to make the time of journey to 30 min. will be _____ kmph? [D]

(A) 60 (B) 120 (C) 90 (D) 65

4. A car traveled from A to B at 60kmph and returns the same distance at 40kmph. What is the average speed of the car for whole journey? [B]

(A) 24kmph (B) 48kmph (C) 36kmph (D) 50kmph

5. A train covers half of the journey at 18kmph and the rest at 12kmph. If it takes 5hours in all, what is the total length of the journey in km? [72]

(A) 36 (B) 72 (C) 18 (D) 144

6. Ravi goes to city A from B at 30kmph and returns to B from A at 20kmph. If he takes 10 hours in all, what is the distance between the two cities A and B? [C]

(A) 240km (B) 100km (C) 120km (D) 60km

7. The speed of a vehicle is 50kmph excluding the stoppages and it is 45kmph including stoppage. How many minutes per hour did the vehicle stop? [C]

(A) 10min (B) 12min (C) 6min (D) 8min

8. Govind covers one-third of his journey at 20kmph and the rest at 40kmph. If he takes 12 hours in all, what is the total journey in km? [B]

(A) 300km (B) 360km (C) 400km (D) 250km

9. The distance between A and B is 310km. Two buses started from A and B at the same time towards each other with the speeds 34kmph and 28 kmph respectively. [C]

(A) 140km (B) 160km (C) 170km (D) 200km

10. The distance between Guntur and Kakinada is 305km. A train starts from Guntur towards Kakinada at 20kmph at 6a.m. Another train starts from Kakinada for Guntur at 25kmph at 10a.m. When will they meet? [B]

(A) 2pm (B) 3pm (C) 6pm (D) 4pm

11. Rajesh rides by a cycle at 8kmph. After every 10 km he rests for 20minutes. He will cover 40km in [C]

(A) 5hrs (B) 5hrs. 20min (C) 6hrs. (D) 6hrs. 20min

12. A train 200 m long is running at 72kmph. In how many seconds it will cross a telegraph pole? [D]

(A) 12 (B) 15 (C) 20 (D) 10

13. The length of a train is 220m. In how many seconds it crosses a bridge of 150m, If its speed is 36kmph. [A]

(A) 37 (B) 34 (C) 24 (D) 40

14. A train of 180m crosses a platform in 20 sec. if the speed of the train is 54kmph. What is the length of the platform? [C]

(A) 100m (B) 120m (C) 180m (D) 150m

15. A man is running at the speed of 4kmph. A train runs at 52kmph, if the length of the train is 200m. How much time will it take for the train to overtake the man? [B]

(A) 10sec (B) 15sec (C) 18sec (D) 20sec

16. A train running at a speed of 45mps crosses a man running in opposite direction at 5mps in 10 sec. what is the length of the train? [B]

(A) 500m (B) 250m (C) 300 m (D) 400 m