6882 – C26 – C – M – 22

THIRD SEMESTER B.COM. (CBCS) DEGREE EXAMINATION, MARCH/APRIL 2022

COMMERCIAL ARITHMETIC – I

Time : 3 Hours]   [Max. Marks : 80

Instructions : * Mathematical tables will be supplied on request.

* **Simple** calculators are allowed.

SECTION – A

Answer **any ten** of the following :   **(10×2=20)**

1. Define ratio.

2. If log 5 = 0.6990, find log 125 without using logarithm table.

3. If principal = ₹ 1,000 ; Rate of interest = 3% pa ; Time = 6 months, find simple interest.

4. Find the compound interest on ₹1,000/- for two years at 2% pa.

5. Name any two methods of finding depreciation.

6. Write the difference between annuity due and immediate annuity.

7. What is installment buying ?

8. Distinguish between trade discount and cash discount.

9. Find 5% of 10% of ₹ 20,000/-.

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10. If 2% of x = 10 ; find x.

11. If 2 dozens of oranges costs ₹ 500 ; what is the cost of 36 oranges ?

12. If 15 men can do a job in 36 days ; how many men are required to do it in 30 days ?

SECTION – B

Answer **any three** of the following :   (3×5=15)

13. 'A' lends to 'B' a sum of ₹ 600. A part of it at 6% pa and the remaining at 9% pa. At the end of the year 'A' receives from 'B' ₹ 42 as interest. Find the sum lent at 6% pa.

14. A washing machine costing ₹ 13,200 was sold on installment bases to be paid in a monthly installments of ₹ 1,500 each. Find the rate of interest charged.

15. A machine costing ₹ 12,500/- depreciates at 10% pa. What will be its value after 5 years ?

16. Goods costing ₹ 5,200 are sold at 20% above the cost through an agent, who charges 5% on the ₹ 4,000 and 3% on the balance. What rate of profit does the seller receive ?

17. A merchant earns 6% profit by selling an article costing ₹ 30,000. If he allows 20% TD and 5% CD, how much above the cost be marked ?

SECTION – C

Answer **any three** of the following :   (3×15=45)

18. a) Using logarithm tables find the value of $\sqrt{\dfrac{2010 \times 1.42}{19.6 \times 18}}$.

    b) The cash prize of a computer is ₹ 25,000. A person purchases it on installment bases by paying ₹ 5,000 downpayment and remaining in 10 monthly installments of ₹ 2,500 each. Find the rate of interest charged.

19. a) The monthly incomes of A and B are in the ratio 9 : 7 and that of B and C are in the ratio 3 : 2. If 10% of A's income exceeds 15% of C's income by ₹ 27, find the income of all.

 b) A certain sum of money put out at CI amounts to ₹ 900 at the end of first year and to ₹ 940.5 at the end of second year. Find the sum and rate of interest.

20. a) A machine costs ₹ 1,50,000. It depreciates at 10% pa. by DB method. What will be its value after 5 years ?

 b) A loan of ₹ 2,80,000 is repaid by means of 4 equal installments including principal and interest. Find the amount of annual installment at 5% CI pa.

21. a) A table and chair together costs ₹ 5,000. Table is sold at 10% profit and chair at 10% loss. If on the whole these is a profit of 2%, find the cost of each.

 b) An agent charges 9% commission on cash sales and 5% commission on credit sales. If his average return is 7.5% on the total sales. Find the ratio of cash sales to credit sales.

22. a) In a 1500 metere race between A and B, A beats B by 60 meters. In a similar race between B and C, B beats C by 50 meters. By how many meters would A beats C ?

 b) One man, two women and three boys can complete a work in 30 days and 3 men, 2 women and one boy can complete in 20 days. In how many days will 6 men, 6 women and 6 boys do it together ?

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