

B3COM1T4B – O – 25 – 4202



THIRD SEMESTER B.COM. (REVISED NEP) DEGREE

EXAMINATION, JANUARY 2026

COMMERCE (DSE – 4B)

Commercial Arithmetic – I

Time : 3 Hours]

[Max. Marks : 80

- Instructions :** 1) **Mathematical** tables will be supplied on request.
2) Simple calculators are **allowed**.

SECTION – A

I. Answer **all** of the following questions.

(10×2=20)

- 1) If $\log 2 = 0.3010$ find $\log 4$ without using log table.
- 2) Write any two laws of logarithms.
- 3) Find the SI for ₹ 10,000 at 5% p.a. for 5 years.
- 4) What is instalment buying ?
- 5) Name any two methods of finding depreciation.
- 6) Define immediate annuity.
- 7) Find 5% of 10% of ₹ 5,000.
- 8) An article is purchased for ₹ 15,000 and is sold for ₹ 17,500. Calculate profit /loss.
- 9) Find x if $3x : 5 = 150 : 2$.
- 10) Name the different types of proportions.

SECTION – B

II. Answer **any three** of the following.

(3×5=15)

- 11) In what time a sum of money double itself at 4% p.a. simple interest ?
- 12) Find the CI on ₹ 5,000 at 4% p.a. in 4 years.
- 13) A loan of ₹ 25,000 is repaid by means of 4 equal instalments including principal and interest. Calculate the amount of annual instalment at 5% p.a.

[P.T.O.]



- 14) A trader buys an article for ₹ 30,000 and marks it 15% above the cost. Find the percentage profit or loss, if he sells it with 10% TD and 5% CD.
- 15) A, B and C are in partnership. A gets 40% of the total profit, B 50% of the remaining profit and C 80% of the balance any amount left out is equally divided among the three partners. If C gets in all ₹ 130, find the total profit.

SECTION – C

III. Answer **any three** of the following :

(3×15=45)

- 16) a) Simplify using logarithm tables.

$$\sqrt{\frac{562 \times 8421}{396}}$$

- b) Two articles A and B together cost ₹ 50,000. Article A is sold at 10% profit and article B is sold at 10% loss. If on the whole there is profit of 2%. Find the cost of each article.
- 17) a) A person borrowed ₹ 5,000 for 10 years at CI if the rate of interest is 3% p.a. for the first 2 years, 3.5% p.a. for the next 3 years and 4% for the last 5 years, how much does he repay at the end of 10 years ?
- b) What principal would amount to ₹ 1,000 at 6% p.a. in 8 years compounded half yearly ?
- 18) a) Find the value of machinery costing ₹ 12,500 at the end of 5 years. If depreciation at 10% p.a. is written off on the value of the commencement of each year.
- b) A motor car worth ₹ 15,000 is purchased on instalment plan under which five equal annual instalments including compound interest at 10% p.a. are payable. Find the amount of annual payment.
- 19) a) An agent charges 2.5% commission on cash sales and 4.5% on credit sales and thereby earns 3.25% on the total sales. If cash sales is ₹ 45,000 find the credit sales.
- b) If an article is sold for ₹ 25,000 incurred a loss of 20% at what price should it be sold to earn a profit of 20% ?
- 20) a) A property is divided among A and B in the ratio 1 : 3, B and C in the ratio of 4 : 5. If the value of property is ₹ 80,000 find the shares of A and B and C.
- b) One man, two women and three boys can complete a work in 30 days, three men, two women and one boy can complete the same work in 20 days. In how many days will 6 men, 6 women and 6 boys do it together ?