PRACTICE PAPER

ICSE CLASS 10 – MATHEMATICS

Chapter 2 : Banking

(Recurring Deposit Account)

Maximum Marks: 40 ***Time allowed: One and a half hours***

1. *Answers to this Paper must be written on the paper provided separately.*
2. *You will not be allowed to write during the first 10 minutes. This time is to be spent in reading the question paper.*
3. ***The time given at the head of this Paper is the time allowed for writing the answers.***
4. *Attempt* ***all*** *questions from* ***Section A*** *and* ***any two*** *questions from* ***Section B****.*
5. ***All working, including rough work, must be clearly shown, and must be done on the same sheet as the rest of the answer.***
6. ***Omission of essential working will result in loss of marks.***
7. *The intended marks for questions or parts of questions are given in brackets [ ].*
8. *Unless stated otherwise, all amounts are in rupees (₹) and the rate of interest is per annum.*

SECTION A (20 Marks)

*(Attempt **all** questions from this Section.)*

Question 1

Choose the correct answers to the questions from the given options. [8]

(Do not copy the question, write the correct answers only.)

(i) A man deposits ₹ 1,000 per month in a Recurring Deposit Account for 1 year at 10% per annum. The interest he earns is:

(a) ₹ 600
(b) ₹ 650
(c) ₹ 1,200
(d) ₹ 1,300

(ii) Sana deposits ₹ 500 per month in a Recurring Deposit Account for 8 months. The equivalent principal for one month, on which the interest is calculated, is:

(a) ₹ 18,000
(b) ₹ 4,500
(c) ₹ 36,000
(d) ₹ 4,000

(iii) The maturity value of a Recurring Deposit Account in which ₹ 400 is deposited per month for 6 months at 12% per annum is:

(a) ₹ 2,400
(b) ₹ 2,448
(c) ₹ 2,484
(d) ₹ 2,568

(iv) **Assertion (A):** In a Recurring Deposit Account of ₹ 100 per month for 12 months at 8% per annum, the interest earned is ₹ 52.

Reason (R): Every instalment of a Recurring Deposit Account earns interest for the whole period of 12 months.

(a) (A) is true and (R) is false.
(b) (A) is false and (R) is true.
(c) Both (A) and (R) are true, and (R) is the correct explanation for (A).
(d) Both (A) and (R) are true, but (R) is not the correct explanation for (A).

(v) A depositor receives ₹ 15,312 on maturity of a Recurring Deposit Account in which he deposited ₹ 800 per month for 18 months. The interest earned by him is:

(a) ₹ 14,400
(b) ₹ 15,312
(c) ₹ 1,200
(d) ₹ 912

(vi) A Recurring Deposit Account of ₹ 1,000 per month for 12 months earns an interest of ₹ 390. The rate of interest per annum is:

(a) 5%
(b) 6%
(c) 7%
(d) 8%

(vii) In a Recurring Deposit Account, if the monthly instalment is doubled, while the period and the rate of interest remain the same, the interest earned:

(a) remains the same
(b) doubles
(c) becomes half
(d) becomes four times

(viii) **Assertion (A):** A Recurring Deposit Account of ₹ 200 per month for 6 months at 10% per annum earns an interest of ₹ 35.

Reason (R): In a Recurring Deposit Account, a fixed sum is deposited every month for a fixed period.

(a) (A) is true and (R) is false.
(b) (A) is false and (R) is true.
(c) Both (A) and (R) are true, and (R) is the correct explanation for (A).
(d) Both (A) and (R) are true, but (R) is not the correct explanation for (A).

Question 2

(i) Rahul deposits ₹ 750 per month in a Recurring Deposit Account for 2 years at 8% per annum. Find: [4]

(a) the total sum deposited by him.
(b) the interest he earns.
(c) the amount he receives on maturity.

(ii) A bank pays interest at 12% per annum on a Recurring Deposit Account. Mrs. Iyer deposits a fixed sum every month for 15 months and receives ₹ 24,300 on maturity. [4]

(a) Find the maturity value of such an account in which ₹ 100 is deposited per month for 15 months.
(b) Hence, find the monthly instalment paid by Mrs. Iyer.
(c) Find the interest earned by Mrs. Iyer.

(iii) Priya deposits ₹ 2,000 per month in a Recurring Deposit Account for 3 years and receives ₹ 80,880 on maturity. Find: [4]

(a) the total sum deposited by her.
(b) the interest paid by the bank.
(c) the rate of interest per annum.

SECTION B (20 Marks)

*(Attempt **any two** questions from this Section.)*

Question 3

(i) Mr. Bose deposits ₹ 600 per month in a Recurring Deposit Account for 2 years 3 months. If the rate of interest is 10% per annum, find the amount he receives on maturity. [3]

(ii) Anu deposits ₹ 900 per month for 2 years and her sister Binu deposits ₹ 600 per month for 3 years in Recurring Deposit Accounts. The bank pays interest at 12% per annum. Find the maturity value of each account and state who receives more, and by how much. [3]

(iii) Sunil deposits ₹ 800 per month in a Recurring Deposit Account at 10% per annum and receives ₹ 15,540 on maturity. Form a quadratic equation in n, the number of months, and solve it to find the period of the account in years and months. [4]

Question 4

(i) A bank pays an interest of ₹ 1,950 on a Recurring Deposit Account which was held for 1 year at 12% per annum. Find: [3]

(a) the monthly instalment.

(b) the maturity value of the account.

(ii) Mr. Rao needs at least ₹ 50,000 after 2 years. What is the least amount, in multiples of ₹ 5, that he must deposit every month in a Recurring Deposit Account paying interest at 10% per annum? [3]

(iii) Mr. Das deposits ₹ 1,600 per month in a Recurring Deposit Account for 2 years at 9% per annum. Find: [4]

(a) the interest he earns.

(b) the maturity value of his account.

(c) the balance left with him, if on maturity he uses the whole amount to buy a television set marked ₹ 40,000, on which sales tax is charged at 5%.

Question 5

(i) Ritu deposits ₹ 1,800 per month in a Recurring Deposit Account for 2 years and receives ₹ 47,250 on maturity. Find the rate of interest per annum. [3]

(ii) Meera deposits ₹ 600 per month in a Recurring Deposit Account which pays interest at 12% per annum. The bank pays her an interest of ₹ 1,260. Find the period of the account in years and months. [3]

(iii) The rate of interest on a Recurring Deposit Account is 10% per annum and the period is 2 years. The maturity value of the account is ₹ 68,900. Find: [4]

(a) the monthly instalment.

(b) the total sum deposited.

(c) the interest earned.

Question 6

(i) Mr. Sharma deposits ₹ 2,500 per month in a Recurring Deposit Account for 30 months at 8% per annum. Find: [3]

(a) the equivalent principal for one month.

(b) the interest he earns.

(c) the maturity value of the account.

(ii) Kavya opens two Recurring Deposit Accounts, each for 12 months, with total monthly instalments of ₹ 2,000. One account pays interest at 8% and the other at 12% per annum. If the total interest earned on both accounts is ₹ 1,248, find the monthly instalment of each account. [3]

(iii) Rani deposits a fixed sum every month in a Recurring Deposit Account for 4 years at 7% per annum. Had the bank paid interest at 9% per annum, she would have received ₹ 2,940 more. Find: [4]

(a) her monthly instalment.

(b) the interest she earns at 7% per annum.

(c) the maturity value of her account at 7% per annum.

— End of Question Paper —