

Reducing and Flat Interest rate methods

Question 1. Calculate interest for different months

Reducing Balance method (12% pa)

Month	Outstanding	Repayments		
		Principal	Interest	Total installment
1	10,000	1,000		
2	9,000	1,000		
3	8,000	1,000		
4	7,000	1,000		
5	6,000	1,000		
6	5,000	1,000		
7	4,000	1,000		
8	3,000	1,000		
9	2,000	1,000		
10	1,000	1,000		
Total				

Question 2: Calculate interest for different months

Flat interest basis (12% pa)

Month	Outstanding	Repayments		
		Principal	Interest	Total installment
1	10,000	1,000		
2	9,000	1,000		
3	8,000	1,000		
4	7,000	1,000		
5	6,000	1,000		
6	5,000	1,000		
7	4,000	1,000		
8	3,000	1,000		
9	2,000	1,000		
10	1,000	1,000		
Total				

Reducing and Flat Interest rate methods

Answer 1

Reducing Balance method (12% pa)

	Outstanding	Repayments		
		Principal	Interest	Total installment
1	10,000	1,000	100	1100
2	9,000	1,000	90	1090
3	8,000	1,000	80	1080
4	7,000	1,000	70	1070
5	6,000	1,000	60	1060
6	5,000	1,000	50	1050
7	4,000	1,000	40	1040
8	3,000	1,000	30	1030
9	2,000	1,000	20	1020
10	1,000	1,000	10	1010
Total		10,000	550	

Answer 1

Flat interest basis (12%pa)

	Outstanding	Repayments		
		Principal	Interest	Total installment
1	10,000	1,000	100	1,100
2	9,000	1,000	100	1,100
3	8,000	1,000	100	1,100
4	7,000	1,000	100	1,100
5	6,000	1,000	100	1,100
6	5,000	1,000	100	1,100
7	4,000	1,000	100	1,100
8	3,000	1,000	100	1,100
9	2,000	1,000	100	1,100
10	1,000	1,000	100	1,100
Total		10,000	1,000	

Equated Monthly Installments

Question: You take a loan of Rs10,000 from the bank . They offer the loan at 21% pa interest rates and set a monthly EMI of Rs1,099. Separate principal and interest for each month.

EMI (21% pa)				
	Outstanding	Repayments		
		Principal	Interest	Total installment
1	10,000			1099
2				1099
3				1099
4				1099
5				1099
6				1099
7				1099
8				1099
9				1099
10				1099
	Total			

Equated Monthly Installments

Answer

Interest and principal separation for the EMI.

	Outstanding	EMI (21% pa)		
		Principal	Interest	Total installment
1	10,000	924	175	1099
2	9,076	940	159	1099
3	8,136	957	142	1099
4	7,179	973	126	1099
5	6,206	990	109	1099
6	5,215	1,008	91	1099
7	4,208	1,025	74	1099
8	3,182	1,043	56	1099
9	2,139	1,062	37	1099
10	1,077	1,077	22	1099
	Total	10,000	990	

Answer

	Loan amount	Date of loan	January	February	March	April	May	June	July	August	Sept
State Bank	10,000	10-Jan-07		1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Rural Bank	20,000	10-Mar-07					3,500		3,500		3,500
National Bank	30,000	10-May-07									5,500
		Total	-	1,100	1,100	1,100	4,600	1,100	4,600	1,100	10,100