CONCEPT: MODIFIED ACCELERATED COST RECOVERY SYSTEM (MACRS)

Many countries specify the depreciation methods that are acceptable for tax purposes in their jurisdictions.

These methods may provide an opportunity of charging higher depreciation in the initial years to ensure speedy recovery of the cost incurred for the purchase of the asset.

Under Modified Accelerated Cost Recovery System (MARCS), we Charge Higher depreciation during initial period and lower depreciation during later periods.

For example, in the United States, corporations use the MACRS (modified accelerated cost recovery system) for tax purposes.

Question No – 6A:

Note: Life of the Machine is 5 years but it is missing in Question.

(i) Decision of Project:

Depreciation = $\frac{10,00,000-0}{5}$ = 2,00,000

Tax Saving on Dep = 2,00,000 X 40% = 80,000

(ii) CFAT:

EBDT	3,00,000
Less: Tax (40%)	1,20,000
	1,80,000
Add: Tax Saving on Dep	80,000
CFAT	2,60,000

(iii) PV of Inlow = 2,60,000 X PVIFA (10%,5)

= 2,60,000 X 3.971 = 9,85,660

(iv) NPV = 985,660 – 10,00,000 = - 14,340

Advice: Since the NPV of the Project is Negative it is not viable to buy the machine.

Second Part:

Computation of Depreciation:

Year	1	2	3	4	5
Opening	10,00,000	7,00,000	4,00,000	1,00,000	0
Less: Dep	3,00,000	3,00,000	3,00,000	1,00,000	0
Closing	7,00,000	4,00,000	1,00,000	1,80,000	0
Tax Saving	1,20,000	1,20,000	1,20,000	40,000	0

Year	1	2	3	4	5
EBDT	3,00,000	3,00,000	3,00,000	3,00,000	3,00,000
Less: Tax 40%	1,20,000	1,20,000	1,20,000	1,20,000	1,20,000
	1,80,000	1,80,000	1,80,000	1,80,000	1,80,000
Add: Tax Saving	1,20,000	1,20,000	1,20,000	40,000	0
CFAT (A)	3,00,000	3,00,000	3,00,000	2,20,000	1,80,000
PVIF @10% (B)	0.909	0.826	0.751	0.683	0.621

PV of Inflow = $\sum(A \times B)$ = ₹10,07,840

NPV = ₹10,07,840 – ₹10,00,000 = ₹7,840

Since the NPV is positive, the decision of buying the machine is viable.

Thus, using MACRS the company finds the same project acceptable which was not acceptable under SLM.