

E-Notes

Article – 6/2021

CASE STUDIES (PLANT & MACHINERY)

✚ CASE- STUDY - 1

The company has purchased a rotary kiln on 1st April 2014. The manufacturer has supplied the Kiln in two consignments. First consignment consisted of four parts of the Kiln and cost of each part with applicable taxes was Rs 250000/ . Second consignment consisted of two parts of the Kiln and cost of each part with applicable taxes was Rs 100000/ . The company has booked Rs 1500000/ as Gross block. Useful life of 10 years & residual value is 5%. Cost index on 1st April 2014 was 240 and that on 31 st March 2018 is 272. The valuation date being 31st March 2018. The total steel content of the Kiln is 6 ton as per manufacturer's catalogue. The valuer has been asked to calculate the slump sale value ex-situ also. For doing this he has to consider the residual current replacement value or steel scrap value whichever is higher. Current scrap rate of steel of the Kiln grade is Rs 20/ per kg after dismantling the Kiln from position.

1. What is the historical purchase cost of the Kiln?

1000000	1200000	1250000	1500000
---------	---------	---------	---------

Hints - $4 \times 2.5 + 2 \times 1 = 12$ L

2. How much amount company has loaded as other cost on historical purchased cost to arrive at Gross block?

300000	100000	150000	200000
--------	--------	--------	--------

Hints -- $15 - 12 = 3$ L

3. How much % company has loaded as other cost on historical purchase cost to arrive at Gross block?

30% 35% 25% 20%

Hints- $3 / 12 = 25\%$

4. What will be residual amount of the Kiln?

100000	120000	127000	125000
--------	--------	--------	--------

Hints - residual value on current replacement value = $0.05 \times 272 \times 1200000 / 240 = 68000 /$. Steel material value = $20 \times 6000 = 120000 /$

5. What will be a depreciable amount using SLM of depreciation for accounts purpose

1440000	1140000	1400000	1500000
---------	---------	---------	---------

Hints - $0.95 \times 1200000 = 1140000$

6. What will be an accumulated depreciation at end of March 2018 using SLM of depreciation for accounts purpose?

456000	556000	576000	476000
--------	--------	--------	--------

Hints - $1140000 \times 4 / 10 = 456000$

7. What will be net block in books of accounts at end of March 2018 using the SLM of depreciation?

1400020	1044000	1440400	1000444
---------	---------	---------	---------

Hints - $1500000 - 456000 = 1044000$

8. What is reproduction cost new of the Kiln as on 31st March 2018?

1350000	1360000	1370000	1380000
---------	---------	---------	---------

Hints- $1200000 \times 272 / 240 = 1360000$

9. What is the depreciation on 31 st March 2018 for valuation purpose?

526800	652800	516800	561800
--------	--------	--------	--------

Hints - $0.95 \times 1360000 \times 4 / 10 = 516800$

10. What is the Depreciated reproduction cost of the furnace as on 31st March 2018 for valuation purpose

985000	1054000	900000	843200
--------	---------	--------	--------

Hints - $1360000 - 516800 = 843200$

Solution code

- | | |
|------|-------|
| 1. B | 6. A |
| 2. A | 7. B |
| 3. C | 8. B |
| 4. B | 9. C |
| 5. B | 10. D |

CASE STUDY - 2

The company has purchased new milling machine in the year of 2015 at Rs 200000 with negligible other expenses. The milling machine is in good condition and proving required accuracy at satisfactory level. Milling machine has active second-hand market and numbers of comparable sale instances are available for identical or similar type milling machine. Few comparable sale instances are as below; (1). Identical milling has been sold before a week at Rs 80000, (2). Similar milling has been sold before three day at Rs 90000, (3) Identical milling machine has been sold before a five years at Rs. 75,000, (4) Identical milling is available for sale at Rs 82000 as on date of valuation (1st April 2018). Economic life is 10year & salvage value is 5%. Index no. of year 2015 & 2018 are 100 & 200 respectively. New milling machine is available at Rs 300000 with negligible other expenses. cost of installation of identical milling is 25000/ as per the current site.

1. In given scenario, which approach of valuation is most suitable?

cost	income	market	all
------	--------	--------	-----

2. Which is the most suitable sale instance for valuation?

identical sold in nearer to date of valuation	identical available for sale on date of valuation	similar sold most nearer to date of valuation	identical sold a few years back
---	---	---	---------------------------------

3. Which is the least suitable sale instance for valuation?

1	2	3	4
---	---	---	---

4. Which is the most suitable sale instance for valuation?

1	2	3	4
---	---	---	---

5. Give the preference of suitability for adopting valuation?

1,2,3,4	4,2,1,3	4,1,2,3	1,4,2,3
---------	---------	---------	---------

6. Which method of depreciation is most suitable for market approach?

straight line method(slm)	written down value(wdv)	unit of production(uop)	none of above
---------------------------	-------------------------	-------------------------	---------------

7. What is the amount of depreciation for current replacement cost?

85500	90000	95000	78000
-------	-------	-------	-------

Hint - $0.95 \times 300000 \times 3 / 10 = 85500$

8. What is the amount of depreciated replacement cost by market approach?

240000	214500	225000	235000
--------	--------	--------	--------

Hint - $300000 - 85500 = 214500$

9. What is the amount of depreciated reproduction cost?

160000	286000	114000	150000
--------	--------	--------	--------

Hint - $200 \times 200000 / 100 = 400000 /$, $400000 - 400000 \times 0.95 \times 3 / 10 = 286000$

10. What is the replacement value of the milling machine?

286000	80000	107000	82000
--------	-------	--------	-------

Solution code

- | | |
|------|-------|
| 1. C | 6. A |
| 2. B | 7. A |
| 3. C | 8. B |
| 4. D | 9. B |
| 5. C | 10. C |



Mr. Debasish Ghosh
Member, RVO ESMA Foundation
IBBI Registered Valuer(P&M), B.E Mechanical