**Foreword**

This resource material was developed to provide teachers with examples of graded assignments for reference and is by no means exhaustive. Teachers are advised to adapt the materials according to the diverse learning needs of students if deemed necessary.

Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assets

Elementary Level – Question Paper

|  |
| --- |
|  |
| The following accounts were extracted from the books of ABC Company as at 1 January 2019: |
|

|  |  |
| --- | --- |
|  | $ |
| Machinery (#101, #102 and #103) | 1,500,000 |
| Accumulated depreciation - Machinery | ? |
|  |  |

 |
| All machines were purchased on 1 January 2017 and the company depreciates its machines over five years of useful life on a monthly basis using straight-line method. The residual values for machinery are 5% of their original costs.  |
| During the year ended 31 December 2019, the following transactions regarding machinery occurred: |
| (i) | On 1 April 2019, Machine#101 costing $240,000 was sold for cash of $180,000. |
| (ii) | On 1 May 2019, Machine#102 costing $300,000 was traded in for a new machine. Details related to the trade-in were as follows: |
|

|  |  |
| --- | --- |
|  |  $ |
| List price of new machine | 280,000 |
| Less: Trade discount | 8,000 |
|  | 272,000 |
| Less: Trade-in value of Machine#102 | 140,000 |
|  | 132,000 |
| Annual insurance  | 2,000 |
| Cost of training staff to operate new machine | 3,000 |
| Delivery cost of the new machine | 6,000 |
| Testing and inspection fees  | 4,000 |
| Total payment made by cheque | 147,000 |

 |
|  |
| REQUIRED: |
| (a) | For ABC Company, prepare the following accounts for the year ended 31 December 2019: |
|  | (i) | Machinery account |
|  | (ii) | Accumulated depreciation account – Machinery |
|  | (iii) | Disposal account – Machine#101 |
|  | (iv) | Disposal account – Machine#102  | (15 marks) |
| (b) | Explain, with a relevant accounting principle or concept, the purpose of providing depreciation on non-current assets. (5 marks) |
|  | (Total: 20 marks) |

|  |
| --- |
| Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assetsElementary Level – Student Worksheet(a)(i)  |
| Working: | Determine the costs of different pieces of machinery  |
| (W1) | **Cost of Machine#101** = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |
|  |  |
| (W2) | **Cost of Machine#102** = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *When the machines are sold/traded-in, transfer the cost to disposal account from machinery account:**Dr Disposal Cr Machinery* |
|  |  |
| (W3)(W4) | **Trade-in value** (Value of Machine #102 agreed for the exchange of the new machine)= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Capital Expenditures made by cheque = Cost of new machine\* - Trade-in value**= ( \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ) **-** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \* In order to calculate the cost of new machine, you are required to distinguish between capital expenditures and revenue expenditures from the trade-in details given in item (ii) by putting a ✓ in the following table:

|  |  |  |
| --- | --- | --- |
|  | **Capital expenditures*** can benefit the business for long term (e.g. more than a year) or;
* can increase the productive life of non-current assets or;
* are any necessary costs incurred in acquiring the non-current assets and getting it ready for its intended use.
 | **Revenue expenditures*** bring short term benefits only or;
* are expenditures incurred for normal maintenance and repairs of non-current assets.
 |
| 1. Net price of new machine ($272,000)
 | ✓ (e.g.) |  |
| 1. Annual insurance ($2,000)
 |  |  |
| 1. Cost of training staff to operate new machine ($3,000)
 |  |  |
| 1. Delivery costs of the new machine ($6,000)
 |  |  |
| 1. Testing and inspection fees ($4,000)
 |  |  |

 |
|  |  |
|  |  |  |
|  |  |  |

|  |  |
| --- | --- |
|  |  |
|  |  |  Machinery |  |  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Jan | Balance b/d |  | 1 Apr | Disposal#101 (W1) |  |
| 1 May | Disposal#102 (Trade-in value) (W3) |  | 1 May | Disposal#102 (W2) |  |
| 1 May | Cash at bank (W4) |  | 31 Dec | Balance c/d |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| *(Cost – Residual value) ÷ Estimated useful life (in months) (months)*(a) (ii) |
| Working: | Calculate the **depreciation expense** per month for: |
|  | Machine#101 = | $( \_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_ ) ÷ ( \_\_\_ × 12 ) = $\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | Machine#102 = | $( \_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_ ) ÷ ( \_\_\_ × 12 ) = $\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | Machine#103 = | $( \_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_ ) ÷ ( \_\_\_ × 12 ) = $\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  | New machine = | $( \_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_ ) ÷ ( \_\_\_ × 12 ) = $\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |
|  |  |  |  |
|  |  | Cost of Machine#103 = Opening balance of Machinery account – Cost of #101 – Cost of #102 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |
|  |  |  |  |
| (W5) | The accumulated depreciation as at 1 January 2019 (Balance b/d) included the accumulated depreciation for all 3 machines (#101, #102 and #103) from 1 January 2017 to 31 December 2018  |
|  | = $( \_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_ ) × \_\_\_ months = $ \_\_\_\_\_\_\_\_\_ |

|  |
| --- |
|  |
| (W6)\* | The accumulated depreciation for Machine#101 from 1 January 2017 to 31 March 2019 |
|  | = $ \_\_\_\_\_\_\_\_\_ × \_\_\_ months = $\_\_\_\_\_\_\_\_\_\_\_ |
|  |  |
| (W7)\* | The accumulated depreciation for Machine#102 from 1 January 2017 to 30 April 2019 |
|  | = $ \_\_\_\_\_\_\_\_\_ × \_\_\_ months = $\_\_\_\_\_\_\_\_\_\_\_*\*When the machines are sold/traded-in, transfer the accumulated depreciation to the disposal account:**Dr Accumulated depreciation Cr Disposal* |

|  |  |
| --- | --- |
| (W8) | Depreciation expense for 2019 includes all 4 machines =  |
|  | Machine#101 (1 Jan – 31 Mar) | = $ \_\_\_\_\_\_\_\_\_\_ × \_\_\_\_\_ months = $\_\_\_\_\_\_\_\_\_  |  |
|  | Machine#102 (1 Jan – 30 Apr) | = $ \_\_\_\_\_\_\_\_\_\_ × \_\_\_\_\_ months = $\_\_\_\_\_\_\_\_\_  |  |
|  | Machine#103 (1 Jan – 31 Dec) | = $ \_\_\_\_\_\_\_\_\_\_ × \_\_\_\_\_ months = $\_\_\_\_\_\_\_\_\_  |  |
|  | New machine (1 May – 31 Dec) | = $ \_\_\_\_\_\_\_\_\_\_ × \_\_\_\_\_ months = $\_\_\_\_\_\_\_\_\_  |  |
|  |
|  |  |
|  |  |  Accumulated depreciation – Machinery  |  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Apr | Disposal#101 (W6) |  | 1 Jan | Balance b/d (W5) |  |
| 1 May | Disposal#102 (W7) |  | 31 Dec | Depreciation expense (W8) |  |
| 31 Dec | Balance c/d |  |  |  |  |
|  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| (a) (iii)Working: | Calculate the **gain on disposal**: *Gain on disposal = Selling price – (Cost - Accumulated depreciation)* |
| (W9) | Gain on disposal = $ \_\_\_\_\_\_\_\_\_\_\_ *–*  $( \_\_\_\_\_\_\_\_\_\_\_ *–* \_\_\_\_\_\_\_\_\_\_\_ ) = $ \_\_\_\_\_\_\_\_\_\_\_  |  |
|  |
|  |  |  Disposal – Machine#101  |  |  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Apr | Machinery |  | 1 Apr | Accumulated depreciation |  |  |
| 1 Apr | Gain on disposal (W9) |  | 1 Apr | Cash in hand |  |  |
|  |  |  |  |  |  |  |

*When an asset is sold, gain on disposal occurs when its* ***selling price****/trade-in value is more than its* ***carrying amount***

*When an asset is sold, loss on disposal occurs when its selling price/****trade-in value*** *is less than its* ***carrying amount***

|  |  |  |
| --- | --- | --- |
| (a) (iv)Working: | Calculate the **loss on disposal:***Loss on disposal =(Cost – Accumulated depreciation) – trade-in value*  |  |
| (W10) | Loss on disposal = $( \_\_\_\_\_\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_ ) – $ \_\_\_\_\_\_\_\_\_\_\_ = $ \_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |  |
|  |  |  Disposal – Machine#102  |  |
| 2019 |  | $ | 2019 |  | $ |  |  |
| 1 May | Machinery |  | 1 May | Accumulated depreciation |  |  |  |
|  |  |  | 1 May | Machinery (Trade-in value) |  |  |  |
|  |  |  | 1 May | Loss on disposal (W10) |  |  |  |
|  |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| (b) | The purpose of providing depreciation is to allocate the cost of non-current asset over its estimated (i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ life. It is in compliance with the (ii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ concept which states that expenses should be linked with its relevant (iii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in each year. Depreciation expense should be charged as an expense in the (iv) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ statement and the non-current asset should be reported at cost less (v) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ depreciation on the statement of financial position. |

|  |
| --- |
| Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assetsElementary Level – Suggested Solution and Explanatory Notes |
| (ai)Working: |  |
| (W1) | Cost of Machine#101 = $240,000 |
| (W2) | Cost of Machine#102 = $300,000 |
| (W3) | Trade-in value (Value of Machine #102 agreed for the exchange of the new machine) = $140,000 |
| (W4) | Capital Expenditures made by cheque\* = ($272,000 + $6,000 + $4,000) – $140,000 = $142,000 |
|  |  |  |
|  |  |  |

**\*Explanatory notes**

|  |
| --- |
| In order to calculate the cost of new machine, we need to identify the capital expenditures.*For the cost of new machine, we only consider those items that are capital expenditures.**= (List price - trade discount) + Delivery costs + Testing and inspection fees*  |

|  |  |
| --- | --- |
|  |  |
|  |  |  Machinery  |  |  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Jan | Balance b/d | 1,500,000 | 1 Apr | Disposal#101 (W1) | 240,000 |
| 1 May | Disposal#102 (Trade-in value) (W3) | 140,000 | 1 May | Disposal#102 (W2) | 300,000 |
| 1 May | Cash at bank (W4) | 142,000 | 31 Dec | Balance c/d | 1,242,000 |
|  |  | 1,782,000 |  |  | 1,782,000 |
|  | Pay attention ! Two entries are required for recording the cost of new machine. |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  |  |  |

|  |
| --- |
| (aii) |
| Working: |

|  |
| --- |
| Depreciation expense per month for: |
| Machine#101 = | $(240,000 – 240,000 × 5%) ÷ (5 × 12) = $3,800 |
| Machine#102 = | $(300,000 – 300,000 × 5%) ÷ (5 × 12) = $4,750 |
| Machine#103 = | $(960,000 – 960,000 × 5%) ÷ (5 × 12) = $15,200 |
| New machine = | $(282,000 – 282,000 × 5%) ÷ (5 × 12) = $4,465 |

 |
|  | Cost of Machine#103 = $1,500,000 – $240,000 – $300,000 = $960,000  |  |
|  |  |
| (W5) | The accumulated depreciation as at 1 January 2019 (Balance b/d) included the accumulated depreciation for all 3 machines (#101, #102 and #103) from 1 January 2017 to 31 December 2018 |
|  | = $(3,800 + 4,750 + 15,200) × 24 months = $570,000 |
|  |
| (W6) | The accumulated depreciation for Machine#101 from 1 January 2017 to 31 March 2019 |
|  | = $3,800 × 27 months = $102,600 |
|  |  |
| (W7) | The accumulated depreciation for Machine#102 from 1 January 2017 to 30 April 2019 |
|  | = $4,750 × 28 months = $133,000 |
|  |  |
| (W8) | Depreciation expense for 2019 includes all 4 machines = $(11,400 + 19,000 + 182,400 + 35,720) = $248,520 |
|  | Machine#101 (1 Jan – 31 Mar) | = $3,800 × 3 months = $11,400 |  |
|  | Machine#102 (1 Jan – 30 Apr) | = $4,750 × 4 months = $19,000 |  |
|  | Machine#103 (1 Jan – 31 Dec) | = $15,200 × 12 months = $182,400 |  |
|  | New machine (1 May – 31 Dec) | = $4,465 × 8 months = $35,720 |  |
|  |

|  |  |
| --- | --- |
|  |  |
|  Accumulated depreciation – Machinery\*  |  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Apr | Disposal#101 (W6) | 102,600 | 1 Jan | Balance b/d (W5) | 570,000 |  |
| 1 May | Disposal#102 (W7) | 133,000 | 31 Dec | Depreciation expense (W8) | 248,520 |
| 31 Dec | Balance c/d | 582,920 |  |  |  |  |
|  |  | 818,520 |  |  | 818,520 |
|  |  |  |  |  |  |

**\*Explanatory notes:** Accumulated depreciation account is a contra-asset account which records the depreciation charge against the non-current assets. Its double entry rule is opposite to the assets’.

Double entry for recording depreciation expense:

  *Dr Depreciation expense*

 *Cr Accumulated depreciation*

|  |  |
| --- | --- |
| (a) (iii)Working: |  |
| (W9) | Gain on disposal = $180,000 – $(240,000 – 102,600) = $42,600   |  |
|  Disposal – Machine#101  | Cr |  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Apr | Machinery | 240,000 | 1 Apr | Accumulated depreciation | 102,600 |  |
| 1 Apr | Gain on disposal (W9) | 42,600 | 1 Apr | Cash in hand | 180,000 |  |
|  |  | 282,600 |  |  | 282,600 |  |
|  |   |  |
| (a)(iv) |  |  |
| Working: |  |  |
| (W10) | Loss on disposal = $(300,000 – 133,000) – $140,000 = $27,000  |  |
|  |  |  |  |  |
|  Disposal – Machine#102  |
| 2019 |  | $ | 2019 |  | $ |  |  |
| 1 May | Machinery | 300,000 | 1 May | Accumulated depreciation | 133,000 |  |  |
|  |  |  | 1 May | Machinery (Trade-in value) | 140,000 |  |  |
|  |  |  | 1 May | Loss on disposal (W10) | 27,000 |  |  |
|  |  | 300,000 |  |  | 300,000 |  |  |
|  |  |  |  |  |  |  |  |

**Explanatory notes: Steps of recording disposal of non-current assets:**

|  |
| --- |
| 1. Transfer the cost of the non-current assets sold to the disposal account: Dr Disposal Cr Non-current assets  |
| 2. Transfer the accumulated depreciation of the non-current assets sold to the disposal account: Dr Accumulated depreciation Cr Disposal |
| 3. Record the amount received from the buyer  |
|  Dr Cash  Cr Disposal |
| 4. Record the gain/loss on disposal: *If gain on disposal occurs,* Dr Disposal Cr Gain on disposal *If loss on disposal occurs,*  Dr Loss on disposal Cr Disposal |

|  |  |
| --- | --- |
| (b) | The purpose of providing depreciation is to allocate the cost of non-current asset over its estimated (i) useful life. It is in compliance with the (ii) matching concept which states that expenses should be linked with its relevant (iii) revenues / benefits in each year. Depreciation expense should be charged as an expense in the (iv) income statement and the non-current asset should be reported at cost less (v) accumulated depreciation on the statement of financial position.  |
| **Points to be noted:** |
| Definitions: |
| 1. | Cost of non-current asset: The purchase price + any necessary costs incurred in acquiring the asset and getting it ready for its intended use. |
| 2. | Depreciable amount: Cost minus estimated residual value. |
| 3. | Residual value: The estimated amount of disposing the non-current asset after its estimated useful life. |
| 4. | Trade-in value: The value agreed for the exchange of the non-current asset. |
|  |
| Common mistakes: |
| 1.  | Unable to work out the cost of the new machine. |
| 2. | Fail to count the number of months when calculating the depreciation expense in year 2019.  |
| 3. | Fail to record accurate account name (See illustration 1). |
| 4. | Fail to segregate the trade-in value from the total cost of new machine. (See illustration 2). |
|  |  |
| Illustration 1: |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  Disposal – Machine#102 |  |
| 2019 |  | $ | 2019 |  | $ |
| 1 May | Machinery | 300,000 | 1 May | Accumulated depreciation | 133,000 |
|  |  |  | 1 May | **Trade-in value** | 140,000 |
|  |  |  | 1 May | Loss on disposal (W10) | 27,000 |
|  |  | 300,000 |  |  | 300,000 |
|  |  |  |  |  |  |
| Illustration 2:  |
|  |
|  |  | Machinery  |  |
| 2019 |  | $ | 2019 |  | $ |
| 1 Jan | Balance b/d | 1,500,000 | 1 Apr | Disposal #101 (W1) | 240,000 |
| 1 May  | Cash at bank | 282,000 | 1 May | Disposal #102 (W2) | 300,000 |
|  |  |  | 31 Dec | Balance c/d | 1,242,000 |
|  |  | 1,782,000 |  |  | 1,782,000 |

Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assets

Standard Level – Question Paper

|  |
| --- |
|  |
| The following accounts were extracted from the books of ABC Company as at 1 January 2019: |
|

|  |  |
| --- | --- |
|  | $ |
| Machinery (#101, #102 and #103) | 1,500,000 |
| Accumulated depreciation - Machinery | ? |
|  |  |

 |
| All machines were purchased on 1 January 2017 and the company depreciates its machines over five years of useful life on a monthly basis using straight-line method. The residual values for machinery are 5% of their original costs.  |
| During the year ended 31 December 2019, the following transactions regarding machinery occurred: |
| (i) | On 1 April 2019, Machine#101 costing $240,000 was sold for cash of $180,000. |
| (ii) | On 1 May 2019, Machine#102 costing $300,000 was traded in for a new machine. Details related to the trade-in were as follows: |
|

|  |  |
| --- | --- |
|  |  $ |
| List price of new machine | 280,000 |
| Less: Trade discount | 8,000 |
|  | 272,000 |
| Less: Trade-in value of Machine#102 | 140,000 |
|  | 132,000 |
| Annual insurance  | 2,000 |
| Cost of training staff to operate new machine | 3,000 |
| Delivery cost of the new machine | 6,000 |
| Testing and inspection fees  | 4,000 |
| Total payment made by cheque | 147,000 |

 |
|  |
| REQUIRED: |
| (a) | For ABC Company, prepare the following accounts for the year ended 31 December 2019: |
|  | (i) | Machinery account |
|  | (ii) | Accumulated depreciation account – Machinery |
|  | (iii) | Disposal account – Machine#101 |
|  | (iv) | Disposal account – Machine#102  | (15 marks) |
| (b) | Explain, with a relevant accounting principle or concept, the purpose of providing depreciation on non-current assets. (5 marks) |
|  | (Total: 20 marks) |

|  |
| --- |
| Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assetsStandard Level – Student Worksheet |
| (a) (i)Steps of preparing the machinery account:1. State the opening balance2. Record the cost of new machine including the trade-in value and the extra money paid for the Capital Expenditures by cheque\*3. For the machine sold and traded-in, transfer the costs to disposal account4. Calculate the closing balance\*Capital Expenditures paid by cheque = The purchase price (net) – trade-in value + any necessary costs incurred in acquiring the asset and getting it ready for its intended use |
|  |  | Machinery  |  |  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Jan |  Bal b / d  | 1,500,000 | 1 Apr | Disposal#101 |  240,000 |
| 1 May | Disposal#102(Trade-in value) |  140,000 | 1 May | Disposal#102 |  300,000 |
| 1 May | Cash at bank\* |  142,000 | 31 Dec |  Bal c/d | 1,242,000 |
|  |  | 1,782,000 |  |  | 1,782,000 |
|  |  |  |  |  |  |

\* Working:

Capital Expenditures paid by cheque

= ($ \_\_\_\_\_\_\_\_\_\_ - $ \_\_\_\_\_\_\_\_\_\_ ) *–* $\_\_\_\_\_\_\_\_\_\_ + $ \_\_\_\_\_\_\_\_\_\_ + $ \_\_\_\_\_\_\_\_\_\_

= $ \_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| (a) (ii)Working: | Calculate the depreciation expenses by filling the following table |
|  | **Machine** | **Depreciation for 2017 ($)** | **Depreciation for 2018 ($)** | **Depreciation for 2019 ($)** | **Total****($)** |
|  |
|  | #101 | (e.g.) 240,000 × 0.95 ÷5 = 45,600 | (e.g.) 240,000 × 0.95 ÷5 = 45,600 | (e.g.) 240,000 × 0.95 ÷5 ×3/12 = 11,400 | (e.g.) 102,600 |
|  | #102 |  |  |  |  |
|  | #103\* |  |  |  |  |
|  | New machine | **N/A** | **N/A** |  |  |
|  | **Total** |  |  |  | **N/A** |

\*Cost of Machine#103 = $ \_\_\_\_\_\_\_\_\_\_\_\_\_ *–* $ \_\_\_\_\_\_\_\_\_\_\_\_\_ *–* $\_\_\_\_\_\_\_\_\_\_\_\_\_

= $ \_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
|

|  |
| --- |
| Steps of preparing the accumulated depreciation account:1. Calculate the opening balance including all depreciation expenses incurred before 1 Jan 2019 2. Transfer the totals of accumulated depreciation of the machines sold / traded-in to disposal account 3. Calculate the depreciation expenses for the year (= total of depreciation expenses for 2019 in the above table)4. Calculate the closing balance |

 |
|  |  |  Accumulated depreciation– Machinery  |  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Apr |  |  | 1 Jan |  |  |
| 1 May |  |  | 31 Dec |  |  |
| 31 Dec |  |  |  |  |  |
|  |  |  |  |  |  |

|  |  |
| --- | --- |
| (a) (iii)Hints: | If the selling price (or trade-in value) > net book value, gain on disposal occurs:*Dr Disposal* *Cr Gain on disposal*If the selling price (or trade-in value) < net book value, loss on disposal occurs:*Dr Loss on disposal* *Cr Disposal*  |
|  |
|  |  Disposal – Machine#101  |  |   |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 Apr |  |  | 1 Apr |  |  |
| 1 Apr |  |  | 1 Apr |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| (a) (iv) |  |  |  |
| Hints: In the trade-in transaction, no cash was received. Instead, part of the cost of the new asset (e.g. machine) was settled by the trade-in value.  Pay attention to the corresponding account name recorded in the disposal account for the trade-in value. \*  Disposal – Machine#102  |
| 2019 |  | $ | 2019 |  | $ |  |
| 1 May |  |  | 1 May |  |  |
|  |  |  | 1 May\* |  |  |  |  |
|  |  |  | 1 May |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| (b) | The purpose of providing depreciation: |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | Identify the relevant accounting concept and give a brief explanation: |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | The treatment in financial statements: |  |
|  |  |  |
|  |  |  |

|  |
| --- |
| Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assetsStandard Level – Suggested Solution and Explanatory Notes |
| (a)(i) |
|  |  |  Machinery  |  |  |
| 2019 |  |  $ | 2019 |  |  $ |  |
| 1 Jan | Balance b/d | 1,500,000 | 1 Apr | Disposal#101  | 240,000 |
| 1 May | Disposal#102(Trade-in value) | 140,000 | 1 May | Disposal#102 | 300,000 |
| 1 May | Cash at bank\* | 142,000 | 31 Dec | Balance c/d | 1,242,000 |
|  |  | 1,782,000 |  |  | 1,782,000 |
|  |  |  |  |  |  |
| \* Capital Expenditures paid by cheque= ($280,000 – $8,000) – $140,000 + $6,000 + $4,000 = $142,000  |  |  |
|  |  |  |  |  |  |  |
| Explanatory notesThe cost of the new machine should be recorded by two sets of double entries: *1. Dr Machinery*  *Cr Disposal (for the trade-in value)**2. Dr Machinery*  *Cr Cash at bank (for the Capital Expenditures paid by cheque)* |

|  |  |
| --- | --- |
| (a) (ii)Working: | Calculate the depreciation expenses by filling the following table |
|  | **Machine** | **Depreciation for 2017 ($)** | **Depreciation for 2018 ($)** | **Depreciation for 2019 ($)** | **Total****($)** |
|  |
|  | #101 | 240,000 × 0.95 ÷ 5 = 45,600 | 45,600 | 240,000 × 0.95 ÷ 5 ×3/12= 11,400\* | 102,600 |
|  | #102 | 300,000 × 0.95 ÷ 5 = 57,000 | 57,000 | 300,000 × 0.95 ÷ 5 × 4/12 = 19,000\* | 133,000 |
|  | #103 | 960,000 × 0.95 ÷ 5=182,400 | 182,400 | 182,400 | 547,200 |
|  | New machine | **N/A** | **N/A** | 282,000 × 0.95÷ 5 × 8/12= 35,720\* | 35,720 |
|  | Total | 285,000 | 285,000 | 248,520 | **N/A** |
| Cost of Machine#103 = $1,500,000 *–* $240,000 *–* $300,000 = $960,000 \*Pay attention to the depreciation related to acquisition and disposal of machine during the year:  **For the machine acquired during the year**, the depreciation charged should be calculated on monthly basis for the period **from transaction date to the end of the financial year**. (e.g. 8 months’ depreciation expenses charged to the new machine) **For the machine disposed during the year**, the depreciation charged should be calculated on monthly basis for the period **from the beginning of the financial year to the transaction date**.  (e.g. 3 months’ depreciation expenses charged to machine #101 and 4 months’ depreciation expenses charged to machine #102) |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  Accumulated depreciation – Machinery  |  |
| 2019 |  |  $ | 2019 |  |  $ |  |
| 1 Apr | Disposal#101 | 102,600 | 1 Jan | Balance b/d | 570,000 |
| 1 May | Disposal#102 | 133,000 | 31 Dec | Depreciation expense  | 248,520 |
| 31 Dec | Balance c/d | 582,920 |  |  |  |
|  |  | 818,520 |  |  | 818,520 |
|  |  |  |  |  |  |
| (a)(iii) |
|  |  Disposal – Machine#101 |  |  |
| 2019 |  |  $ | 2019 |  |  $ |  |
| 1 Apr | Machinery | 240,000 | 1 Apr | Accumulated depreciation | 102,600 |
| 1 Apr | Gain on disposal\* | 42,600 | 1 Apr | Cash in hand | 180,000 |  |
|  |  | 282,600 |  |  | 282,600 |  |
|  | \* Selling price = $180,000 Carrying amount = $240,000 - $102,600 = $137,400 Gain on disposal = $180,000 - $137,400 = $42,600 Gain on disposal would be recorded as **other revenue** in the income statement   |  |
|  |  Disposal – Machine#102 |   |  |
| 2019 |  |  $ | 2019 |  |  $ |  |
| 1 May | Machinery | 300,000 | 1 May | Accumulated depreciation | 133,000 |
|  |  |  | 1 May | Machinery (Trade-in value) | 140,000 |  |  |
|  |  |  | 1 May | Loss on disposal\* | 27,000 |  |  |
|  |  | 300,000 |  |  | 300,000 |  |  |
|  |  |  |  |  |  |  |  |
|  | \* Trade-in value = $140,000 Carrying amount = $300,000 - $133,000 = $167,000 Loss on disposal = $167,000 - $140,000 = $27,000  |

 Loss on disposal would be recorded as **expenses** in the income statement

|  |  |
| --- | --- |
| (b) | The purpose of providing depreciation is to allocate the cost of non-current asset over its estimated useful life. It is in compliance with the matching concept which states that expenses should be linked with its relevant revenues / benefits in each year. Depreciation expense should be charged as an expense in the income statement and the non-current asset should be reported at cost less accumulated depreciation on the statement of financial position. |

|  |
| --- |
| **Points to be noted:** |
| Difference between Capital Expenditures and Revenue Expenditures: |
|  | **Capital Expenditures** | **Revenue Expenditures** |
| 1. Nature
 | * can benefit the business for long term (e.g. more than a year) or;
* can increase the productive life of non-current assets or;
* are any necessary costs incurred in acquiring the non-current asset and getting it ready for its intended use.
 | * bring short term benefits only or;
* are expenditures incurred for normal maintenance and repairs of non-current assets.
 |
| 1. Accounting treatment
 | * Capitalised as non-current assets to be recorded on the statement of financial position.
* Depreciation would be provided to allocate the costs over the estimated useful life.
 | * Immediately expensed on the income statement of current year.
* No depreciation would be provided.
 |
| 1. Examples
 | * Purchase price of non-current assets
* Costs incurred in extending the useful life of the non-current assets
* Delivery cost of new non-current assets
* Installation cost of new non-current assets
* Testing and inspection fees of new non-current assets
 | * Annual maintenance and repairs
* Annual insurance expenses
 |
|  |  |  |
| Common mistakes: |

|  |  |
| --- | --- |
| 1. | Wrong classification of capital expenditures and revenue expenditures, therefore unable to work out the cost of the new machine. |
| 2. | Fail to record the depreciation expenses for year 2019 for the two disposed machines in the accumulated depreciation account.  |
| 3.4. | Enter the debit and credit entries on the opposite sides of the accumulated depreciation account.Wrong entries for recording the trade-in value in the accounts. (See illustrations) |

|  |  |
| --- | --- |
|  |  |

|  |
| --- |
| Illustration 1: Inaccurate corresponding account name recorded for the trade-in value. |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  Disposal – Machine#102 |   |
| 2019 |  | $ | 2019 |  | $ |
| 1 May | Machinery | 300,000 | 1 May | Accumulated depreciation | 133,000 |
|  |  |  | 1 May | **Trade-in value** | 140,000 |
|  |  |  | 1 May | Loss on disposal  | 27,000 |
|  |  | 300,000 |  |  | 300,000 |
|  |  |  |  |  |  |
| Illustration 2: Fail to segregate cost of the new machine.  |
|  |
|  |  | Machinery  |  |
| 2019 |  | $ | 2019 |  | $ |
| 1 Jan | Balance b/d | 1,500,000 | 1 Apr | Disposal #101  | 240,000 |
| 1 May  | **Cash at bank** | **282,000** | 1 May | Disposal #102  | 300,000 |
|  |  |  | 31 Dec | Balance c/d | 1,242,000 |
|  |  | 1,782,000 |  |  | 1,782,000 |

Graded Assignment 2: Period-end Adjustments - Depreciation of non-current assets

Advanced Level – Question Paper

|  |
| --- |
|  |
| The following accounts were extracted from the books of ABC Company as at 1 January 2019: |
|

|  |  |
| --- | --- |
|  | $ |
| Machinery (#101, #102 and #103) | 1,500,000 |
| Accumulated depreciation - Machinery | ? |
|  |  |

 |
| All machines were purchased on 1 January 2017 and the company depreciates its machines over five years of useful life on a monthly basis using straight-line method. The residual values for machinery are 5% of their original costs.  |
| During the year ended 31 December 2019, the following transactions regarding machinery occurred: |
| (i) | On 1 April 2019, Machine#101 costing $240,000 was sold for cash of $180,000. |
| (ii) | On 1 May 2019, Machine#102 costing $300,000 was traded in for a new machine. Details related to the trade-in were as follows: |
|

|  |  |
| --- | --- |
|  |  $ |
| List price of new machine | 280,000 |
| Less: Trade discount | 8,000 |
|  | 272,000 |
| Less: Trade-in value of Machine#102 | 140,000 |
|  | 132,000 |
| Annual insurance  | 2,000 |
| Cost of training staff to operate new machine | 3,000 |
| Delivery cost of the new machine | 6,000 |
| Testing and inspection fees  | 4,000 |
| Total payment made by cheque | 147,000 |

 |
|  |
| REQUIRED: |
| (a) | For ABC Company, prepare the following accounts for the year ended 31 December 2019: |
|  | (i) | Machinery account |
|  | (ii) | Accumulated depreciation account – Machinery |
|  | (iii) | Disposal account – Machine#101 |
|  | (iv) | Disposal account – Machine#102  | (15 marks) |
| (b) | Explain, with a relevant accounting principle or concept, the purpose of providing depreciation on non-current assets. (5 marks) |
|  | (Total: 20 marks) |

|  |
| --- |
| Challenging question |
| On 1 January 2020, ABC Company purchased a new motor vehicle at a cost of $500,000 with residual value of $25,000 and an estimated useful life of 5 years. The account manager considered the reducing balance method more appropriate than the straight-line method for the depreciation of the motor vehicle.  |
|  |
| REQUIRED: |
| (c) | Determine the total amount of depreciation expenses of the motor vehicle for two years from 1 January 2020 to 31 December 2021, by using |
|  | (i) | Straight-line method. |
|  | (ii) | Reducing balance method at an annual rate of 45%. |  (3 marks) |
|  |  |
| (d) | State the effect on the net profit if the company adopted reducing balance method rather than straight-line method. (1 mark) |
|  |  |
| (e) | Explain why the account manager considered the reducing balance method more appropriate than the straight-line method for the depreciation of the motor vehicle. (2 marks) |
|  | (Total: 6 marks) |

|  |
| --- |
| Graded Assignment 2: Period-end Adjustments - Depreciation of non-current assetsAdvanced Level – Student Worksheet(a)(i) |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |
| (a)(ii) |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| (a)(iii) |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  (a)(iv) |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

(b)

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Challenging question

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

|  |
| --- |
| Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assetsAdvanced Level – Suggested Solution and Explanatory Notes |
| (a)(i) |
|  |  | Machinery  |  |
| 2019 |  |  $ | 2019 |  |  $ |
| 1 Jan | Balance b/d | 1,500,000 | 1 Apr | Disposal#101  | 240,000 |
| 1 May | Disposal#102(Trade-in value) | 140,000 | 1 May | Disposal#102 | 300,000 |
| 1 May | Cash at bank (W1) | 142,000 | 31 Dec | Balance c/d | 1,242,000 |
|  |  | 1,782,000 |  |  | 1,782,000 |
|  |  |  |  |  |  |

 (W1): ($280,000 – $8,000) – $140,000 + $6,000 + $4,000 = $142,000

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| (a)(ii) |  |  |  |  |
|  |  |  Accumulated depreciation – Machinery  |
| 2019 |  |  $ | 2019 |  |  $ |
| 1 Apr | Disposal#101 (W3) | 102,600 | 1 Jan | Balance b/d (W2) | 570,000 |
| 1 May31 Dec | Disposal#102 (W4)Balance c/d | 133,000582,920 | 31 Dec | Depreciation expenses (W5) | 248,520 |
|  |  | 818,520 |  |  | 818,520 |
| (W2): $1,500,000 × 0.95 ÷ 5 × 2 = $570,000(W3): $240,000 × 0.95 ÷ 5 × 27/12 = $102,600(W4): $300,000 × 0.95 ÷ 5 × 28/12 = $133,000(W5): ($240,000 × 0.95 ÷ 5 × 3/12) + ($300,000 × 0.95 ÷ 5 × 4/12) + ($960,000 × 0.95 ÷ 5) + ($282,000 × 0.95 ÷ 5 × 8/12) = $248,520 |
|  |
| (a)(iii) |
|  |  | Disposal – Machine#101 |  |
| 2019 |  | $ | 2019 |  |  $ |
| 1 Apr | Machinery | 240,000 | 1 Apr | Accumulated depreciation | 102,600 |
| 1 Apr | Gain on disposal | 42,600 | 1 Apr | Cash in hand  | 180,000 |
|  |  | 282,600 |  |  | 282,600 |

|  |  |
| --- | --- |
| (a)(iv) |  |
|  |  | Disposal – Machine#102 |  |
| 2019 |  | $ | 2019 |  | $ |
| 1 May | Machinery | 300,000 | 1 May | Accumulated depreciation | 133,000 |
|  |  |  | 1 May | Machinery (Trade-in value) | 140,000 |
|  |  |  | 1 May | Loss on disposal | 27,000 |
|  |  | 300,000 |  |  | 300,000 |
|  |  |  |  |  |  |

|  |  |
| --- | --- |
| (b) | The purpose of providing depreciation is to allocate the cost of non-current asset over its estimated useful life. It is in compliance with the matching concept which states that expenses should be linked with its relevant revenues / benefits in each year. Depreciation expense should be charged as an expense in the income statement and the non-current asset should be reported at cost less accumulated depreciation on the statement of financial position. |

|  |
| --- |
| Challenging question |
| (ci) | The depreciation expenses under straight-line method Straight-line method: (Cost – Residual Value) ÷ estimated useful life = ($500,000 - $25,000) ÷ 5 × 2 = $190,000 |
| (cii) | The depreciation expenses under reducing balance method = $500,000 × 45% + $500,000 × 55% × 45%Reducing balance method: (Cost – depreciation already charged) × % = $348,750 |
|  |  |
| (d) | The net profit will be decreased by $158,750 using reducing balance method. |
|  |  |
| (e) | According to the matching concept, expenses should be linked with its relevant revenues / benefits in each year. In connection with this, the reducing balance method is more appropriate for the depreciation of non-current assets by which benefits generated declining gradually in each year like motor vehicles.  |

|  |
| --- |
| **Points to be noted:** |
| 1. | Beware of the company’s policy regarding full year calculation or monthly calculation of depreciation on non-current assets. If the question provides no information related to the company’s policy on the calculation, the depreciation should be calculated on monthly basis. |
| 2. | When ascertaining the cost of non-current assets, all capital expenditures incurred should be included such as the purchase price, the costs incurred in acquiring the non-current asset and getting it ready for its intended use.  |
| 3.4. | Pattern of the revenues / benefits generated by the non-current assets should be considered when choosing the depreciation method. For example, straight-line method is suitable for the depreciation of non-current assets which generate benefits evenly over the useful life. In contrast, reducing balance method should be adopted in calculating the depreciation for the non-current assets by which benefits generated declining gradually in each year.Identical depreciation method should be applied consistently on the same category of non-current assets.  |
|  |  |
| Common mistakes: |

|  |  |
| --- | --- |
| 1. | No depreciation expenses for year 2019 for the two disposed machines were calculated.  |
| 2.3.4. | Lack of clear workings to illustrate the calculation of figures in the answers. Mistakenly deduct the residual value in the calculation of depreciation under reducing balance method. Fail to use accurate wordings to do comparison between net profits under different depreciation methods, e.g. decrease, lower. |
|  |  |

Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assets

Marking Scheme

|  |
| --- |
| **Marks** |
| (a)(i) |  |
|  | Machinery |
|  | 2019 |  | $ | 2019 |  | $ |  |
| *0.5* | 1 Jan | Balance b/d | 1,500,000 | 1 Apr | Disposal#101  | 240,000 | *0.5* |
| *1* | 1 May | Disposal#102(Trade-in value) | 140,000 | 1 May31 Dec | Disposal#102Balance c/d | 300,0001,242,000 | *0.5**0.5* |
| *1* | 1 May | Cash at bank (W1) | 142,000 |  |  |  |  |
|  |  |  | 1,782,000 |  |  | 1,782,000 |  |
|  | (4) |
| (a)(ii) |  |
|  | Accumulated depreciation– Machinery |
|  | 2019 |  | $ | 2019 |  | $ |  |
| *0.5* | 1 Apr | Disposal#101 (W3) | 102,600 | 1 Jan | Balance b/d (W2) | 570,000 | *1.5* |
| *0.5**0.5* | 1 May31 Dec | Disposal#102 (W4)Balance c/d | 133,000582,920 | 31 Dec | Depreciation expense (W5) | 248,520 | *2* |
|  |  |  | 818,520 |  |  | 818,520 |  |
|  |  |  |  |  | (5) |
| (a)(iii) |  |
|  | Disposal– Machine#101 |
|  | 2019 |  | $ | 2019 |  | $ |  |
| *0.5* | 1 Apr | Machinery  | 240,000 | 1 Apr | Accumulated depreciation | 102,600 | *0.5* |
| *1* | 1 Apr | Gain on disposal (W6) | 42,600 | 1 Apr | Cash in hand | 180,000 | *1* |
|  |  |  | 282,600 |  |  | 282,600 |  |
|  |  |  |  |  |  | (3) |
| (a)(iv) |  |
|  | Disposal– Machine#102 |
|  | 2019 |  | $ | 2019 |  | $ |  |
| *0.5* | 1 May | Machinery | 300,000 | 1 May | Accumulated depreciation | 133,000 | *0.5* |
|  |  |  |  | 1 May | Machinery(Trade-in value) | 140,000 | *1* |
|  |  |  |  | 1 May | Loss on disposal (W7) | 27,000 | *1* |
|  |  |  | 300,000 |  |  | 300,000 |  |
|  |  |  |  |  | (3) |

 (Total: 15 marks)

|  |  |
| --- | --- |
| Workings: |  |
| Cost for Machine#103 = $(1,500,000 – 240,000 – 300,000) = $960,000 |
| Depreciation expense per month for: |
| Machine#101 = | $(240,000 – 240,000 × 0.05) ÷ (5 × 12) = $3,800 |
| Machine#102 = | $(300,000 – 300,000 × 0.05) ÷ (5 × 12) = $4,750 |
| Machine#103 = | $(960,000 – 960,000 × 0.05) ÷ (5 × 12) = $15,200 |
| New machine = | $(282,000 – 282,000 × 0.05) ÷ (5 × 12) = $4,465 |

|  |  |
| --- | --- |
| (W1) | Cash payment for new machine: $(272,000 + 6,000 + 4,000 – 140,000) = $142,000 |
|  |  |
| (W2) | Accumulated depreciation for machinery as at 1 January 2019 |
|  | = $(3,800 + $4,750 + $15,200) × 24 months = $570,000 |
|  |  |
| (W3) | Accumulated depreciation for Machine#101 as at 1 April 2019 |
|  | = $3,800 × 27 months = $102,600 |
|  |  |
| (W4) | Accumulated depreciation for Machine#102 as at 1 May 2019 |
|  | = $4,750 × 28 months = $133,000 |
|  |  |
| (W5) | Depreciation expense for 2019 = $11,400 + $19,000 + $182,400 + $35,720 = $248,520 |
|  |  Machine#101 = $3,800 × 3 months  | = $11,400 |
|  |  Machine#102 = $4,750 × 4 months  | = $19,000 |
|  |  Machine#103 = $15,200 × 12 months | = $182,400 |
|  |  New machine = $4,465 × 8 months | = $35,720 |
| (W6) | Gain on disposal = $180,000 – $(240,000 – 102,600) = $42,600   |
| (W7) | Loss on disposal = $(300,000 – 133,000) – $140,000 = $27,000  |
| (b) | The purpose of providing depreciation is to allocate the cost of non-current asset over its estimated useful life. *(1)* It is in compliance with the matching concept *(1)* which states that expenses should be linked with its relevant revenues / benefits in each year. *(1)* Depreciation expense should be charged as an expense in the income statement *(1)* and the non-current asset should be reported at cost less accumulated depreciation on the statement of financial position. *(1)* |
|  | (Total: 5 marks) |

|  |
| --- |
| Challenging question |
| (ci) | The depreciation expenses under straight-line method = ($500,000 - $25,000) ÷ 5 × 2 = $190,000 *(1)* |
| (cii) | The depreciation expenses under reducing balance method = $500,000 × 45% + $500,000 × 55% × 45%= $348,750 *(2)* |
|  |  |
| (d) | The net profit will be decreased by $158,750 using reducing balance method. *(1)* |
|  |  |
| (e) | According to the matching concept, expenses should be linked with its relevant revenues / benefits in each year. *(1)* In connection with this, the reducing balance method is more appropriate for the depreciation of non-current assets by which benefits generated declining gradually in each year like motor vehicles *(1)*.  |
|  | (Total: 6 marks) |