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 assets
Elementary Level – Student Worksheet

(a)(i)
Working: Determine the costs of different pieces of machinery

(W1) **Cost of Machine#101** = _____ ⬅ *When the machines are sold/traded-in, transfer the cost to disposal account from machinery account:*

(W2) **Cost of Machine#102** = _____ ⬅ *Dr Disposal Cr Machinery*

(W3) **Trade-in value** (Value of Machine #102 agreed for the exchange of the new machine)

= _____

(W4) **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.)	
2. Annual insurance ($2,000)		
3. Cost of training staff to operate new machine ($3,000)		
4. Delivery costs of the new machine ($6,000)		
5. Testing and inspection fees ($4,000)		

Machinery

2019		$	2019		$
1 Jan	Balance b/d		1 Apr	Disposal#101 (W1)	
1 May	Disposal#102		1 May	Disposal#102 (W2)	
	(Trade-in value) (W3)				
1 May	Cash at bank (W4)		31 Dec	Balance c/d	

(Cost – Residual value) ÷ Estimated useful life (in 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)

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

Working: Calculate the **gain on disposal**:

Gain on disposal = Selling price – (Cost - Accumulated depreciation)

(W9)   Gain on disposal = $ _____ – $(_____ – _____) = $ _____

<table>
<tr><td colspan="3" align="center">Disposal – Machine#101</td></tr>
<tr><td>2019</td><td>$</td><td>2019</td><td>$</td></tr>
<tr><td>1 Apr   Machinery</td><td></td><td>1 Apr   Accumulated depreciation</td><td></td></tr>
<tr><td>1 Apr   Gain on disposal (W9)</td><td></td><td>1 Apr   Cash in hand</td><td></td></tr>
</table>

When an asset is sold, loss on disposal occurs when its selling price/**trade-in value** is <u>less</u> 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 = $(_____ – _____) – $ _____ = $ _____

<table>
<tr><td colspan="3" align="center">Disposal – Machine#102</td></tr>
<tr><td>2019</td><td>$</td><td>2019</td><td>$</td></tr>
<tr><td>1 May   Machinery</td><td></td><td>1 May   Accumulated depreciation</td><td></td></tr>
<tr><td></td><td></td><td>1 May   Machinery (Trade-in value)</td><td></td></tr>
<tr><td></td><td></td><td>1 May   Loss on disposal (W10)</td><td></td></tr>
</table>

(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 assets
Elementary 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

<div align="center">Machinery</div>

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) = $\underline{\$42,600}$

Disposal – Machine#101

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 = $\underline{\$27,000}$

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) <u>useful</u> life.

It is in compliance with the (ii) <u>matching</u> concept which states that expenses should be linked with its relevant (iii) <u>revenues / benefits</u> in each year.

Depreciation expense should be charged as an expense in the (iv) <u>income</u> statement and the non-current asset should be reported at cost less (v) <u>accumulated</u> depreciation on the statement of financial position.

Points to be noted:
<u>Definitions:</u>
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.

<u>Common mistakes:</u>
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 assets
Standard Level – Student Worksheet

(a) (i)
Steps of preparing the machinery account:
1.   State the opening balance
2.   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 account
4.   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			1 Apr		
1 May	(Trade-in value)		1 May		
1 May	Cash at bank*		31 Dec		

* 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 assets
Standard 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 notes
The 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	$240,000 \times 0.95 \div 5$ $= 45,600$	45,600	$240,000 \times 0.95 \div 5 \times 3/12$ $= 11,400*$	102,600
#102	$300,000 \times 0.95 \div 5$ $= 57,000$	57,000	$300,000 \times 0.95 \div 5 \times 4/12$ $= 19,000*$	133,000
#103	$960,000 \times 0.95 \div 5$ $=182,400$	182,400	182,400	547,200
New machine	**N/A**	**N/A**	$282,000 \times 0.95 \div 5 \times 8/12$ $= 35,720*$	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.
2. 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.
3. 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.   Enter the debit and credit entries on the opposite sides of the accumulated depreciation account.
4.   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:

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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 assets
Advanced Level – Student Worksheet

(a)(i)

(a)(ii)

(a)(iii)

(a)(iv)

(b)

_____

_____

_____

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Challenging question

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Graded Assignment 2: Period-end Adjustments – Depreciation of non-current assets
Advanced 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 May	Disposal#102 (W4)	133,000	31 Dec	Depreciation expenses (W5)	248,520
31 Dec	Balance c/d	582,920			
		818,520			818,520

(W2): $1,500,000 \times 0.95 \div 5 \times 2 = \$570,000$

(W3): $240,000 \times 0.95 \div 5 \times 27/12 = \$102,600$

(W4): $300,000 \times 0.95 \div 5 \times 28/12 = \$133,000$

(W5): ($240,000 \times 0.95 \div 5 \times 3/12) + (\$300,000 \times 0.95 \div 5 \times 4/12) + (\$960,000 \times 0.95 \div 5)$
       $+ (\$282,000 \times 0.95 \div 5 \times 8/12) = \$248,520$

(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
　　　　= ($500,000 - $25,000) ÷ 5 × 2 = $190,000

> Straight-line method:
>
> (Cost – Residual Value) ÷ estimated useful life

(cii)　　The depreciation expenses under reducing balance method
　　　　= $500,000 × 45% + $500,000 × 55% × 45%
　　　　= $348,750

> Reducing balance method:
>
> (Cost – depreciation already charged) × %

(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.   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.
4.   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.   Lack of clear workings to illustrate the calculation of figures in the answers.
3.   Mistakenly deduct the residual value in the calculation of depreciation under reducing balance method.
4.   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	140,000	1 May	Disposal#102	300,000	0.5
		(Trade-in value)		31 Dec	Balance c/d	1,242,000	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	1 May	Disposal#102 (W4)	133,000	31 Dec	Depreciation	248,520	2
0.5	31 Dec	Balance c/d	582,920		expense (W5)		
			818,520			818,520	

(5)

(a)(iii)

Disposal– Machine#101

	2019			$	2019		$	
0.5	1 Apr	Machinery		240,000	1 Apr	Accumulated	102,600	0.5
						depreciation		
1	1 Apr	Gain on disposal	42,600	1 Apr	Cash in hand	180,000	1
		(W6)						
				282,600			282,600	

(3)

(a)(iv)

Disposal– Machine#102

	2019		$	2019		$	
0.5	1 May	Machinery	300,000	1 May	Accumulated	133,000	0.5
					depreciation		
				1 May	Machinery	140,000	1
					(Trade-in value)		
				1 May	Loss on disposal	27,000	1
					(W7)		
			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)*.

<div align="right">(Total: 6 marks)</div>