# YПОҮРГЕІО ПАІДЕІАぇ KAI ПОヘITI乏MOY  YПHPE IA EEETAEE』N 

## ПАГКҮПРІЕェ ЕЕЕТАさЕI工 2018

## MAОНМА：＾OГIธTIKH（О．K．）I

HMEPOMHNIA KAI תPA EEETA乏H乏：Пદ́ $\mu$ тtтn， 17 Maïou 2018
08：00－11：00

TO EЕЕTAгTIKO $\Delta$ OKIMIO AПOTEへEITAI AПO ENNEA（9）$\Sigma E \wedge I \Delta E \Sigma$

## OДHГIE ：



－Етіт

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## QUESTION 1

The managers of Alpha Printers Ltd wish to purchase a new printing machine. They will use the machine for four (4) years. There are two machines that are capable of producing the quality of work that is desired, machine CN and machine HP. The current cost of capital for Alpha Printers Ltd is 10\%.

The following is an extract from the present value tables of $€ 1$ :

|  |  |
| :---: | :---: |
| Years: | 1 |
| 2 | Discount factors at $10 \%$ |
| 3 | 0,909 |
| 4 | 0,826 |

The following information is available for the two machines:

|  | Machine CN | Machine HP |
| :--- | :---: | :---: |
|  | $\boldsymbol{€}$ | $\boldsymbol{€}$ |
| Initial Cost | 200.000 | 200.000 |
| Net Cash Flows |  |  |
| Years: | 1 | 80.000 |
|  | 2 | 92.000 |
|  | 110.000 | 100.000 |
|  | 4 | 106.000 |

## Additional information:

- All receipts and payments will take place at the end of the year
- Profit accrues evenly throughout each year
- The depreciation is charged on a straight line basis (zero scrap value).


## REQUIRED:

(a) Calculate for each machine the:
i. Payback Period
(Marks 4)
ii. Net Present Value (NPV)
(Marks 7)
iii. Accounting Rate of Return (ARR)
(Marks 6)


(Advise the managers of Alpha Printers Ltd, giving reasons, as to which machine they should purchase).

## QUESTION 2

## PART (A)

The following balances were extracted from the books of Dreamers Designs, a manufacturer of bedroom furniture, at 31 December 2017:

|  | Opening <br> Inventory | Closing <br> Inventory |  |
| :--- | :---: | :---: | :---: |
|  | $\boldsymbol{\epsilon}$ | $\boldsymbol{\epsilon}$ |  |
| Raw materials | 46.000 | 49.000 |  |
| Work in progress | 34.000 | 32.000 |  |
| Finished goods | 25.000 | 27.000 |  |
| Purchases of raw materials |  |  | 345.000 |
| Purchases of finished goods |  |  | 60.000 |
| Sales of finished goods |  |  | 1.560 .000 |
| Office salaries |  |  | 90.500 |
| Light and heat |  |  | 18.000 |
| Factory wages |  |  | 50.000 |
| Factory manager's salary |  |  | 28.000 |
| Manufacturing royalties |  |  | 36.000 |
| Rent |  |  | 54.000 |
| Insurance |  | 48.000 |  |
| Fuel and power |  | 60.000 |  |
| Carriage inwards of raw materials |  | 140.000 |  |
| Returns inwards |  |  |  |
| Plant and machinery at cost |  |  |  |
| Accumulated depreciation of plant and <br> machinery |  |  |  |

## Additional information at 31 December 2017:

1. $80 \%$ of the light \& heat is utilized in the factory
2. Factory wages accrued amounted to $€ 2.000$, five-sixths (5/6) of wages are direct and one-sixth $(1 / 6)$ is indirect
3. Rent paid in advance $€ 3.000$ and Insurance accrued $€ 1.000$
4. Rent and insurance are to be apportioned as follows:
i. Factory $2 / 3$
ii. Office $1 / 3$
5. Plant and machinery is depreciated at $25 \%$ per annum using the reducing balance method
6. Goods manufactured should be transferred to the Statement of Profit or Loss at a standard cost of $€ 900.000$.

## REQUIRED:

Prepare the Manufacturing Account for the year ended 31 December 2017.
(Marks 10)

## PART (B)

Procopis purchases and sells energy saving bulbs and provides the following information for January 2017:

| January 1 | 80 units in inventory at cost of $€ 10$ per unit |
| :--- | :--- |
| January 4 | 90 units purchased at a cost of $€ 14$ per unit |
| January 10 | 60 units sold at $€ 32$ per unit |
| January 20 | 30 units purchased at a cost of $€ 18$ per unit |
| January 26 | 50 units sold at $€ 38$ per unit |

## REQUIRED:

Calculate the value of inventory at 31 January 2017 using the:
(a) First In First Out (FIFO), periodic, inventory method
(b) Last In First Out (LIFO), periodic, inventory method
(c) Weighted Average Cost (AVCO), perpetual, inventory method (Calculations to be shown to the nearest two decimal places).
(Marks 5)

## QUESTION 3

The following balances have been extracted from the books of Shire Plc as at 31 December 2017:

|  | Dr | Cr |
| :---: | :---: | :---: |
|  | $€$ | $€$ |
| Office buildings at cost | 600.000 |  |
| Office buildings - accumulated depreciation |  | 120.000 |
| 8\% Loan Notes |  | 100.000 |
| Bank | 99.000 |  |
| Issued ordinary share capital of €0,50 each |  | 400.000 |
| Retained earnings at 1 January 2017 |  | 68.000 |
| Share premium |  | 21.000 |
| Dividends paid | 30.000 |  |
| Allowance for receivables |  | 6.000 |
| Trade receivables | 200.000 |  |
| Trade payables |  | 162.000 |
| Other payables |  | 18.000 |
| Other receivables | 4.000 |  |
| Inventory at 1 January 2017 | 200.000 |  |
| Revenue (Sales) |  | 1.260 .000 |
| Purchases | 700.000 |  |
| Returns Outwards |  | 50.000 |
| Salaries | 200.000 |  |
| Rent and rates | 56.000 |  |
| Warehouse rent | 26.000 |  |
| Loan Notes interest | 4.000 |  |
| Auditors remuneration | 28.000 |  |
| Distribution expenses | 58.000 |  |
|  | 2.205 .000 | 2.205 .000 |

## The following adjustments are also required:

1. Inventory on 31 December 2017 valued at cost was $€ 180.000$. This includes some items which cost $€ 12.950$ and have been hard to sell. It was decided to
have the items repacked at a cost of $€ 450$. This will allow them to sell for €6.400
2. $80 \%$ of salaries relate to marketing and sales staff
3. The interest on the $8 \%$ Loan Notes for the second half of the year was outstanding
4. Write off $€ 5.000$ as irrecoverable debts and adjust the allowance for receivables to $3 \%$ of the remaining trade receivables
5. During December 2017 a rights issue of 1 for every 4 shares was made to ordinary shareholders at a price of $€ 1,00$ per share. This issue has not yet been entered into the accounts
6. Corporation tax on profits is estimated at $€ 29.900$
7. Rent and rates, will be apportioned in accordance with the floor space as follows:
Delivery and marketing office $2000 \mathrm{~m}^{2}$
Administration
$3000 \mathrm{~m}^{2}$
8. Depreciation is to be charged on Office buildings $10 \%$ using the reducing balance method.

## REQUIRED:

Prepare the:
(a) Statement of Profit or Loss for the year ended 31 December 2017, in line with IAS 1
(Marks 15)
(b) Statement of Changes in Equity for the year ended 31 December 2017.
(Marks 5)
(Total Marks 20)

## QUESTION 4

## PART (A)

Aphrodite owns a business producing and selling frozen yogurt at Kato Paphos, in areas popular with tourists. The following information is available for the year ended 31 December 2017.

- Rent of factory $€ 9.600$ per year
- Machinery was purchased at a cost of $€ 14.500$ with a life span of 8 years and a residual value of $€ 500$. Depreciation is to be charged on a straight line basis
- Direct labour in production was $€ 0,30$ per frozen yogurt
- Other fixed cost $€ 10.500$ per year
- Insurance for the year $€ 1.120$
- Milk and fruits costs per frozen yogurt $€ 0,15$
- The supervisor's salary $€ 15.000$ per year
- $\quad$ Selling price of a frozen yogurt $€ 1,20$
- Sales of frozen yogurts are 135100 (units) per year
- Advertising cost $€ 2.455$ per year
- Salesmen commission per frozen yogurt $€ 0,20$
- All production was sold.


## REQUIRED:

Calculate for the year ended 31 December 2017 the:
(a) Number of frozen yogurts to be sold to break even
(Marks 9)
(b) Break - even point in sales value
(c) Margin of safety in units
(d) Profit for the year ended 31 December 2017

## PART (B)

H Eтaıpzía Columbus Engineering Plc катабкєuá\}દı $\mu \eta \chi \alpha v \varepsilon ́ \varsigma ~ a \varepsilon p o т т \lambda a ́ v \omega v ~ к \alpha ı ~$

 $\mu \eta x a v \eta \varsigma^{\prime}$
(Columbus Engineering Plc manufactures airplane engines and plans to purchase a new machine. The directors are uncertain whether to make a new issue of shares or issue debentures to finance the purchase of the new machine).

## REQUIRED:


(State two differences between shares and debentures)
(Marks 5)
(Total Marks 20)

## QUESTION 5

The Statements of Financial Position (extracts) of Terra Constructions Plc at 31 December 2016 and 31 December 2017 were as follows:

|  | 2016 <br> 31 December | 2017 <br> 31 December |
| :---: | :---: | :---: |
|  | € | € |
| ASSETS |  |  |
| Non-Current assets |  |  |
| Property, plant and equipment at cost | 13.500 .000 | 12.300 .000 |
| Accumulated depreciation | (4.520.000) | (4.440.000) |
| Property, plant and equipment at NBV | 8.980.000 | 7.860 .000 |
|  |  |  |
| Current assets |  |  |
| Inventories | 3.020.000 | 2.958 .000 |
| Trade receivables | 1.020.000 | 1.150 .000 |
| Cash and Cash Equivalents | ---- | 200.000 |
|  | 4.040.000 | 4.308 .000 |
|  |  |  |
| Current liabilities |  |  |
| Bank overdraft | 120.000 | --- |
| Trade payables | 980.000 | 860.000 |
| Tax payable | 240.000 | 360.000 |
|  | 1.340.000 | 1.220 .000 |
| Non-Current liabilities |  |  |
| 6\% Bank loan |  | 600.000 |

## Additional information:

1. Profit after interest but before tax for the year ended 31 December 2017 was € 380.000
2. Interest on the bank overdraft was $€ 14.000$ for the year
3. On 31 December 2017, equipment that cost $€ 2.115 .000$ with depreciation to date of $€ 560.000$ was sold for $€ 1.570 .000$
4. On 31 March 2017 the company took out a 6\%, ten-year, bank loan for $€ 600.000$
5. Loan interest was paid at the end of the year
6. The corporation tax for the year was $€ 280.000$
7. Cash Flows used in Investing Activities was $€ 450.000$
8. Cash Flows from Financing Activities was $€ 273.000$.

## REQUIRED:

(a) Prepare for the year ended 31 December 2017
i. The Accumulated Depreciation Account
(Marks 4)
ii. The Statement of Cash Flows, in accordance with IAS 7. (Marks 14)

 (State two items that would be found in the Financing Activities section of the Statement of Cash Flows).

