

**ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ ΚΑΙ ΠΟΛΙΤΙΣΜΟΥ
ΔΙΕΥΘΥΝΣΗ ΑΝΩΤΕΡΗΣ ΚΑΙ ΑΝΩΤΑΤΗΣ ΕΚΠΑΙΔΕΥΣΗΣ
ΥΠΗΡΕΣΙΑ ΕΞΕΤΑΣΕΩΝ**

ΠΑΓΚΥΠΡΙΕΣ ΕΞΕΤΑΣΕΙΣ 2018

ΜΑΘΗΜΑ: ΛΟΓΙΣΤΙΚΗ

**ΗΜΕΡΟΜΗΝΙΑ ΚΑΙ ΩΡΑ ΕΞΕΤΑΣΗΣ: Πέμπτη, 17 Μαΐου 2018
08:00 - 11:00**

ΠΡΟΤΕΙΝΟΜΕΝΕΣ ΛΥΣΕΙΣ ΕΝΤΕΚΑ (11) ΣΕΛΙΔΕΣ

QUESTION 1 (Answer)**(a)****i. Payback period**

| Machine CN | | | Machine YP | | |
|--|---|--------------------|---|---|--------------------|
| | | Net cash flow € | | | Net cash flow € |
| Initial Cost | | 200.000 | Initial Cost | | 200.000 |
| Net cash flow year | 1 | (80.000) | Net cash flow year | 1 | (40.000) |
| | 2 | <u>(92.000)</u> | | 2 | <u>(100.000)</u> |
| | | 28.000 | | | 60.000 |
| | 3 | 110.000 | | 3 | 118.000 |
| 2,25* years *28.000/110.000 Or 2 years and 3** months | | | 2,51* years *60.000/118.000 Or 2 years and 6 months | | |
| **28.000/110.000x12 | | | **60.000/118.000 x12 | | |

(Marks 4)**ii. Net Present Value**

| | | Machine CN | | | Machine HP | |
|-------------|------------|------------------------|------------------------|--|------------------------|------------------------|
| Year | 10% | Net cash flow € | Present Value € | | Net Cash flow € | Present Value € |
| 0 | 1,000 | (200.000) | (200.000) | | (200.000) | (200.000) |
| 1 | 0,909 | 80.000 | 72.720 | | 40.000 | 36.360 |
| 2 | 0,826 | 92.000 | 75.992 | | 100.000 | 82.600 |
| 3 | 0,751 | 110.000 | 82.610 | | 118.000 | 88.618 |
| 4 | 0,683 | 106.000 | 72.398 | | 212.000 | 144.796 |
| | | NPV | 103.720 | | NPV | 152.374 |

(Marks 7)

iii. Accounting rate of return

$$\text{Μέση απόδοση (ARR)} = \frac{\text{Μέσα ετήσια μελλοντικά καθαρά κέρδη (Annual Average Profits)}}{\text{Αρχικό κόστος επένδυσης (Initial cost of investment)}}$$

CN: $ARR = \frac{47.000^*}{200.000} \times 100 = 23.5\%$ $^*(30.000+42.000+60.000+56.000)/4$

HP: $ARR = \frac{67.500^{**}}{200.000} \times 100 = 33.75\%$ $^{**}(-10.000+50.000+68.000+162.000)/4$

Working

| Annual Profits | Machine CN € (Net cash flow -Depn) | Machine HP € (Net cash flow -Depn) |
|----------------|--|--|
| Year 1 | 80.000-50.000* = 30.000 | 40.000-50.000 = (10.000) |
| Year 2 | 92.000-50.000 = 42.000 | 100.000-50.000 = 50.000 |
| Year 3 | 110.000-50.000 = 60.000 | 118.000-50.000 = 68.000 |
| Year 4 | 106.000-50.000 = 56.000 | 212.000-50.000 = 162.000 |
| | | |
| | *Annual Depn = 50.000 200.000:4=50.000 | *Annual Depn = 50.000 200.000:4=50.000 |

(Marks 6)

- (b)** The managers should purchase machine HP because it gives the highest Positive NPV and it gives the highest Rate of Return although Machine CN has a shorter payback period

Οι διευθυντές πρέπει να αγοράσουν το μηχάνημα HP επειδή δίνει την υψηλότερη θετική Καθαρή παρούσα αξία (NPV) και έχει την υψηλότερη μέση απόδοση (ARR) παρόλο που το μηχάνημα CN έχει συντομότερη περίοδο αποπληρωμής.

(Marks 3)

(Total Marks 20)

QUESTION 2 (Answer)**PART (A)**

Dreamers Designs
Manufacturing A/c for the year ended 31 December 2017

| | € | € |
|--|----------|---------------|
| Raw Materials: | | |
| Opening inventory | | 46.000 |
| Add Purchases | 345.000 | |
| Add Carriage Inwards | 48.000 | 393.000 |
| | | 439.000 |
| Less Closing inventory | | 49.000 |
| Cost of Raw Materials used | | 390.000 |
| Direct Wages(190.000 +2.000)x5/6 | | 160.000 |
| Royalties | | 28.000 |
| PRIME COST | | 578.000 |
| Factory overhead | | |
| Light and heat (18.000x80%) | 14.400 | |
| Fuel and Power | 54.000 | |
| Factory Rent (36.000-3.000)x2/3 | 22.000 | |
| Factory Insurance(23.000+1.000) x 2/3 | 16.000 | |
| Indirect Wages(190.000 +2.000)x1/6 | 32.000 | |
| Factory manager's Salaries | 50.800 | |
| Depreciation on Plant & Machinery (480.000– 140.000) x25% | 85.000 | 274.200 |
| Work in Progress | | |
| Add work in progress at start | 34.000 | |
| Less work in progress at end | (32.000) | 2.000 |
| COST OF PRODUCTION | | 854.200 |
| Manufacturing Profit | | 45.800 |
| Cost of goods transfer to Income Statement | | 900.000 |

(Marks 10)

PART (B)**(a)** FIFO (periodic): $(60 \times \text{€}14) + (30 \times 18) = \text{€}1.380$ **Workings**

| | |
|---------------------------|-----------------|
| Opening inventory | 80 |
| Units purchased (90+30) = | 120 |
| Units sold (60+50) = | <u>(110)</u> |
| Closing inventory | <u>90 units</u> |

(Marks 3)**(b)** LIFO (periodic): $(80 \times \text{€}10) + (10 \times \text{€}14) = \text{€}940$ **(Marks 2)****(c) AVCO****Inventory A/c**

| Date | Details | Units | Price per unit | Balance |
|--------|--------------------------|-----------|----------------|--------------|
| Jan 1 | Balance | 80 | 10,00 | 800 |
| Jan 4 | Purchases | 90 | 14,00 | 1.260 |
| | | 170 | 12,12* | 2.060 |
| Jan 10 | Cost of Sales | (60) | 12,12 | (727) |
| | | 110 | 12,12 | 1.333 |
| Jan 20 | Purchases | 30 | 18,00 | 540 |
| | | 140 | 13,38** | 1.873 |
| Jan 26 | Cost of Sales | (50) | 13,38 | (669) |
| Jan 31 | Closing Inventory | 90 | 13,38 | 1.204 |

(Marks 5)***2.060:170******1.873:140****(Total Marks 20)**

QUESTION 3 (Answer)

(a)

Shire Plc
Statement of Profit or Loss for the year ended 31 December 2017

| | € | € |
|------------------------------|----------------|------------------|
| Revenue | | 1.260.000 |
| Cost of sales (W1) | | <u>(677.000)</u> |
| Gross profit | | 583.000 |
| Administrative expenses (W2) | 154.450 | |
| Distribution expenses (W3) | <u>266.400</u> | <u>(420.850)</u> |
| Profit from operations | | 162.150 |
| Finance cost (W4) | | <u>(8.000)</u> |
| Profit before taxation | | 154.150 |
| Taxation | | <u>(29.900)</u> |
| Profit for the year | | <u>124.250</u> |

Workings

(W1) Cost of sales

| | € |
|---|----------------|
| Opening inventory | 200.000 |
| Purchases (700.000-50.000) | 650.000 |
| Closing inventory (180.000-12.950+5.950*) | (173.000) |
| * (6.400-450) | <u>677.000</u> |

(W2) Administrative expenses

| | € |
|--|----------------|
| Salaries $200.000 \times 20\%$ | 40.000 |
| Auditors remuneration | 28.000 |
| Depn –office building $(600.000-120.000) \times 10\%$ | 48.000 |
| Irrecoverable debts | 5.000 |
| Rent & rates $56.000 \times 3/5$ | 33.600 |
| Allowance for receivables $(200.000 - 5.000) \times 3\% - 6.000$ | (150) |
| | <u>154.450</u> |

(W3) Distribution costs:

| | € |
|-------------------------|---------|
| Salaries 200.000x80% | 160.000 |
| Rent & rates 56.000x2/5 | 22.400 |
| Distribution expenses | 58.000 |
| Warehouse rent | 26.000 |
| | 266.400 |

(W4) Loan Notes interest

€100.000 x 8% = €8.000

€8.000 - €4.000 (paid) = €4.000 due

(Marks 15)

(b)

Shire Plc
Statement of Changes in Equity for the year ended 31 December 2017

| | Ordinary Share capital | Share premium | Retained earnings | Total |
|-----------------------------|------------------------------|------------------|----------------------|----------|
| | € | € | € | € |
| Balance at 1 January 2017 | 400.000 | 21.000 | 68.000 | 489.000 |
| Shares issued | 100.000 | 100.000 | - | 200.000 |
| Profit for the year | - | - | 124.250 | 124.250 |
| Dividends paid | | | (30.000) | (30.000) |
| Balance at 31 December 2017 | 500.000 | 121.000 | 162.250 | 783.250 |

WORKINGS:

(W5) Rights issue- Journal entry

| | € | € |
|-----------------------------------|---------|---------|
| Dr Cash (200 000*x€1,00) | 200.000 | |
| Cr Share capital (200 000x€0,5) | | 100.000 |
| Cr Share premium (200 000x€0,5**) | | 100.000 |

*800 000X1/4=200 000 shares

**Share premium=Issue price – par value

Share premium= €1,00 - €0,5 = €0,50

(Marks 5)

(Total Marks 20)

QUESTION 4 (Answer)

PART A

Workings

| <u>Fixed Costs -per year</u> | | <u>Variable costs per unit</u> | |
|------------------------------|---------------|--------------------------------|--------------|
| | € | Direct labour | €0,30 |
| Rent | 9.600 | Milk and fruits | €0,15 |
| Machinery Depreciation | 1.750* | Salesmen commission | <u>€0,20</u> |
| Other Fixed costs | 10.500 | Total VC | €0,65 |
| Insurance | 1.120 | | |
| Supervisor's salary | 15.000 | <u>Contribution per unit</u> | |
| Advertising | <u>2.455</u> | (€1,20 - €0,65) = | €0,55 |
| Total FC | 40.425 | | |
| *(14.500-500/8) | | | |

(a) Break Even Point = $\frac{€40.425}{€0,55} = 73.500$ units (Marks 9)

(b) Break Even Point = 73.500 units x €1,2 = €88.200 (Marks 1)

(c) Margin of safety = 135 100 – 73 500 = 61 600 units (Marks 2)

(d) Profit for 2017

| | € |
|----------------------------------|-----------------|
| Sales revenue = 135 100 x 1,20 = | 162.120 |
| Less VC = 135 100 x 0,65 = | (87.815) |
| Less FC = | <u>(40.425)</u> |
| Profit = | €33.880 |

OR/ Sales (units) x contribution less Fixed costs
(135 100 X €0,55) – 40.425 = €33.880

OR/ Margin of safety x contribution /unit =

61 600 units x €0,55/unit = €33.880

all accepted

(Marks 3)

PART B

| Μετοχές | Ομόλογα |
|---|--|
| 1. Ο μέτοχος (shareholder) είναι ιδιοκτήτης και έχει δικαίωμα ψήφου <i>(shareholders are owners and have voting rights)</i> | Ο κάτοχος ομολόγων (debenture holder) δεν είναι μέτοχος αλλά δανειοδότης και δεν έχει δικαίωμα ψήφου <i>(Debenture holders are payables and do not have voting rights)</i> |
| 2. Το μετοχικό κεφάλαιο δεν επιστρέφεται <i>(The shareholders do not have to be repaid)</i> | Τα ομόλογα έχουν ημερομηνία λήξης και πρέπει να αποπληρωθούν κατά τη λήξη τους <i>(The debentures have to be repaid on the expiring date)</i> |
| 3. Μερίσματα πληρώνονται μόνον αν υπάρχουν κέρδη μετά από απόφαση των διευθυντών (παρουσιάζονται στο Statement of changes in Equity) <i>(Dividends are paid if there are profits available and are stated in the Statement of changes in Equity)</i> | Η εταιρεία είναι υποχρεωμένη να πληρώνει τόκους (finance cost) είτε υπάρχουν κέρδη είτε όχι <i>(Interest has to be paid -finance cost – on its due date)</i> |
| 4. Κατά τη διάλυση της επιχείρησης έχουν δικαίωμα στα περιουσιακά στοιχεία της εταιρείας που απομένουν μετά την αποπληρωμή των πιστωτών <i>(In the case of dissolution the shareholders have the right to surplus assets after the repayment of payables)</i> | Κατά τη διάλυση της επιχείρησης οι κάτοχοι ομολόγων έχουν προτεραιότητα στη αποπληρωμή τους αλλά δεν έχουν περαιτέρω δικαίωμα στα περιουσιακά στοιχεία της εταιρείας που απομένουν μετά την αποπληρωμή των πιστωτών <i>(In the case of dissolution the debenture holders have priority for repayment but they do not have any other rights to surplus assets)</i> |

(Any two differences)

(Marks 5)

(Total Marks 20)

QUESTION 5 (Answer)**(a) (i)**

PPE- Accumulated Depreciation Account

| 2017 | | €000 | 2017 | | €000 |
|--------|-------------|-------|--------|-------------|------------|
| Dec 31 | Disposals | 560 | Jan 01 | Balance b/d | 4.520 |
| Dec 31 | Balance c/d | 4.440 | Dec 31 | SOPL | 480 |
| | | 5.000 | | | 5.000 |

(Marks 4)**(a) (ii)****Statement of Cash Flow for year ended 31 December 2017**

| | | |
|--|-----------|----------------|
| Cash Flows from operating activities | | |
| Profit before taxation | 380.000 | |
| Add Depreciation | 480.000 | |
| Less: Profit on Sale of Non-current Asset (2.115.000-560.000)-1.570.000 | (15.000) | |
| Add: Finance cost (14.000 + 27.000) | 41.000 | |
| Operating cash flow before working capital changes | 886.000 | |
| Add Decrease in inventories | 62.000 | |
| Less Increase in trade receivables | (130.000) | |
| Less Decrease in trade payables | (120.000) | |
| Cash generated from operations | 698.000 | |
| Less Interest Paid (14.000 + 27.000) (W1) | (41.000) | |
| Less Tax Paid (280.000+240.000-360.000) (W2) | (160.000) | |
| Net Cash from Operating Activities | | 497.000 |
| Net Cash Flows used in investing activities | | (450.000) |
| Net Cash Flows from financing activities | | 273.000 |
| Net increase in cash and equivalent | | 320.000 |
| Cash and cash equivalents 1 January 2017 | | -120.000 |
| Cash and cash equivalents 31 December 2017 | | 200.000 |
| Net increase in cash and equivalent | | 320.000 |

Workings:

(1) Bank loan Interest (6% \times 600.000) \times 9/12=€27.000

(2)**Corporation tax**

| | | | |
|-------------|------------|----------------------------|------------|
| | €000 | | €000 |
| Cash - paid | 160 | Balance b/d | 240 |
| Balance c/d | 360 | SOPPL- charge for the year | 280 |
| | 520 | | 520 |

(Marks 14)

(b) Items found in the Financing Activities section include:

- Έκδοση μετοχικού κεφαλαίου στην ονομαστική τους αξία ή υπέρ το άρτιο
- Σύναψη ή αποπληρωμή δανείων
- Έκδοση ή αποπληρωμή ομολόγων
- Η καταβολή μερισμάτων.

- *Issue of shares at par or at a premium*
- *Taking out or repayment of a bank loan*
- *Issue of debentures, or repayment of debentures*
- *Dividends paid*

(Marks 2)**(Total Marks 20)****(GRAND TOTAL MARKS 100)**