

**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	(92.000)		2	(100.000)
		28.000			60.000
	3	110.000		3	118.000
2,25* years *28.000/110.000 Or			2,51* years *60.000/118.000		
2 years and 3** months			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): $(60 \times €14) + (30 \times 18) = €1.380$

Workings

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

(Marks 3)

(b) LIFO (periodic): $(80 \times €10) + (10 \times €14) = €940$

(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)		(677.000)
Gross profit		583.000
Administrative expenses (W2)	154.450	
Distribution expenses (W3)	266.400	(420.850)
Profit from operations		162.150
Finance cost (W4)		(8.000)
Profit before taxation		154.150
Taxation		(29.900)
Profit for the year		124.250

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)	677.000

(W2) Administrative expenses

	€
Salaries 200.000x20%	40.000
Auditors remuneration	28.000
Depn –office building (600.000-120.000)x10%	48.000
Irrecoverable debts	5.000
Rent & rates 56.000x3/5	33.600
Allowance for receivables (200.000 – 5.000)x3%-6.000	(150)
	154.450

(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	€0,20
Other Fixed costs	10.500	Total VC	€0,65
Insurance	1.120		
Supervisor's salary	15.000	Contribution per unit	
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 = $73.500 \text{ units} \times €1,2 = €88.200$ (Marks 1)

(c) Margin of safety = $135\,100 - 73\,500 = 61\,600$ units (Marks 2)

(d) Profit for 2017

	€
Sales revenue = $135\,100 \times 1,20$	= 162.120
Less VC = $135\,100 \times 0,65$	= (87.815)
Less FC	= (40.425)
Profit	= €33.880

OR/ Sales (units) x contribution less Fixed costs

$(135\,100 \times €0,55) - 40.425 = €33.880$

OR/ Margin of safety x contribution /unit=

$61\,600 \text{ units} \times €0,55/\text{unit} = €33.880$

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	SOPL- 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)**