Q4 New machine €30,000 (P). Depreciates 15% (i). 5yrs (t).

$$F = P(1-i)^t$$

$$F = (30{,}000)(1-15\%)^5$$

Calculator

$$F = €13311.159$$

$$13311.16$$

Sum money = P

3% = i

2 yr = t

30,000 = F

$$F = P(1+i)^t$$

$$30{,}000 = P\underbrace{(1+3\%)}^{2} = (1.0609)$$

$$\frac{30{,}000}{(1+3\%)^2} = P \quad \text{or} \quad \frac{30{,}000}{1.0609} = €28{,}277.877$$

$$28{,}277.88$$

€25,000 P = investment

$i = ?$

$t = 3yr$

$F = 26,530.20$

$$F = P(1+i)^t$$

$$26,530.20 = \underline{25,000}(1+i)^3$$

$$\frac{26,530.20}{25,000} = (1+i)^3$$

$\sqrt[3]{\quad}$

$$\sqrt[3]{\frac{26,530.20}{25,000}} = 1+i$$

-1

$$\underbrace{\sqrt[3]{\frac{26,530.20}{25000}} - 1}_{\text{calculator}} = i$$

$\times 100 = i$

$\sqrt[3]{\quad}$

-1

$.02 \times 100$

$= 2\%$

Q5c ii (3937) x 52 = 204724 Litres in one year

$$\frac{204724}{1000} = 204.724 \times 1.85 = €\ 378.739$$

378.74

€378.74

× 13.5%

51.13 VAT

Total 378.74 + 51.13 = € 429.87

€429.87 = 204724 ℓ.

$$€1 = \frac{204724}{429.87} = 476.25$$

€260 = 476.25 x 260

= 123824.04 ℓ.

€1300 x 20% = 260 ✱

Balance.

1550 − 1300 = 250 x40% = 100 HR ✱

Gross Tax 260 + 100 = 360

− 126 TC

234. Income Tax

Tax 234

USC 59.11

PRSI 18

311.11

USC

4.62

6.42

48.07

59.11

1550 − (462 + 214)

874 x 5.5 = 48.07

$\frac{311.11}{1550}$ x100 = 20.1%

W/O No HLW

Pg 85 / 86 Examples.

Section 6.1