**QUESTION 1**

Intermediate: Preparation of functional budgets. X plc manufactures Product X using three different raw materials. The product details are as follows:

Selling price per unit £250

Material A 3 kgs material price £3.50 per kg

Material B 2 kgs material price £5.00 per kg

Material C 4 kgs material price £4.50 per kg

Direct labour 8 hours labour rate £8.00 per hour

The company is considering its budgets for next year and has made the following estimates of sales demand for Product X for July to October:

July August September October

400 units 300 units 600 units 450 units

It is company policy to hold stocks of finished goods at the end of each month equal to 50 per cent of the following month’s sales demand, and it is expected that the stock at the start of the budget period will meet this policy.

At the end of the production process, the products are tested: it is usual for 10 per cent of those tested to be faulty. It is not possible to rectify these faulty units.

Raw material stocks are expected to be as follows on 1 July:

Material A 1000 kgs

Material B 400 kgs

Material C 600 kgs

Stocks are to be increased by 20 per cent in July, and then remain at their new level for the foreseeable future.

Labour is paid on an hourly rate based on attendance. In addition to the unit direct labour hours shown above, 20 per cent of attendance time is spent on tasks which support production activity.

Requirements:

(a) Prepare the following budgets for the quarter from July to September inclusive:

(i) Sales budget in quantity and value;

(ii) Production budget in units;

(iii) Raw material usage budget in kgs;

(iv) Raw material purchases budget in kgs and value;

(v) Labour requirements budget in hours and value.

(b) Explain the term ‘principal budget factor’ and why its identification is an important part of the budget preparation process.

(c) Explain clearly, using data from part (a) above, how you would construct a spreadsheet to produce the labour requirements budget for August. Include a specimen cell layout diagram containing formulae which would illustrate the basis for the spreadsheet.

Intermediate: Preparation of functional budgets.

**QUESTION 2**

D Limited is preparing its annual budgets for the year to 31 December 2013. It manufactures and sells one product, which has a selling price of £150. The marketing director believes that the price can be increased to £160 with effect from 1 July 2013 and that at this price the sales volume for each quarter of 2013 will be as follows:

Sales volume

Quarter 1 40 000

Quarter 2 50 000

Quarter 3 30 000

Quarter 4 45 000

Sales for each quarter of 2014 are expected to be 40 000 units. Each unit of the finished product which is manufactured requires four units of component R and three units of component T, together with a body shell S. These items are purchased from an outside supplier.

Currently prices are:

Component R £8.00 each

Component T 5.00 each

Shell S £30.00 each

The components are expected to increase in price by 10 per cent with effect from 1 April 2013; no change is expected in the price of the shell.

Assembly of the shell and components into the finished product requires 6 labour hours: labour is currently paid at £10.00 per hour.

A 4 per cent increase in wage costs is anticipated to take effect from 1 October 2013.

Variable overhead costs are expected to be £10 per unit for the whole of 2013; fixed production overhead costs are expected to be

£240 000 for the year, and are absorbed on a per unit basis. Stocks on 31 December 2012 are expected to be as follows:

Finished units 9000 units

Component R 3000 units

Component T 5500 units

Shell S 500 units

Closing stocks at the end of each quarter are to be as follows:

Finished units 10% of next quarter’s sales

Component R 20% of next quarter’s production requirements

Component T 15% of next quarter’s production requirements

Shell S 10% of next quarter’s production requirements

Requirement:

(a) Prepare the following budgets of D Limited for the year ending

31 December 2013, showing values for each quarter and the year in total:

(i) Sales budget (in £s and units)

(ii) Production budget (in units)

(iii) Material usage budget (in units)

(iv) Production cost budget (in £s).