5 Wickford plc produces products A, B and C.

The trainee accountant has used predictions from the sales department about the likely demand for each product in a forecasted statement for July.

Forecasted statement for July

	A	B	C
Sales	2 000 units	5 000 units	3 000 units
Revenue	£27 900	£79 750	£59 850
Material cost	£9 000	£34 500	£24 300
Direct labour cost	£4 000	£12 000	£14 400
Fixed overheads	£8 400	£21 000	£12 600
Variable overheads	£2 100	£3 750	£2 500
Profit/loss	£4 400	£8 500	£6 050
Machine hours per unit	0.03	0.04	0.06

- Material and labour costs are variable in nature.
- Material costs are £6.00 per kg and wage rate for direct labour is £8.00 per hour.
- The monthly overheads are fixed and have been apportioned on the basis of units sold.

After the July statement was produced, the trainee accountant admitted that he had not considered various inputs which may have been limited.

It was discovered by a manager that the following inputs were not considered:

- only 12 000 kg of material would be available in July
- only 4 250 direct labour hours would be available
- the maximum number of machine hours available would be 375.

The trainee accountant was worried about whether the figures in his July statement were still accurate.

(a) Determine whether each of the three inputs identified by the manager present a limiting factor. You must show your workings.

(4)

....

....

....

(b) Determine the product mix that would maximise profit, assuming that the company only makes enough units to meet the estimated demand in the July statement. You must show your workings.

(10)

(c) Evaluate the effectiveness of the contribution per limiting factor approach to help companies like Wickford plc maximise their profit when faced with a limited resource.

(12)

....

....

....