Candidate 1 (Question 5(a))

5. Three tonnes of sheep food will feed 350 sheep for 18 days.
The number of sheep **increases** by 100.

(a) How long will the same weight of food now last?

1 ton feeds = 117 Sheep. for 6 six days.

$\frac{18}{350} = 0.05 \times 100 = 5$ days.

$18 - 5 = 13$ days.

Candidate 2 (Question 5(a))

5. Three tonnes of sheep food will feed 350 sheep for 18 days.
The number of sheep increases by 100.

(a) How long will the same weight of food now last?

3 tonnes of sheep food for 18 day

3 = 18 ÷ 3 = 6

350 + 100 = 450

450 ÷ 18 = 25

The food will now last 25 days instead of 18.

Candidate 3 (Question 8(d))

Answers from a): mean = 59.6 and standard deviation = 1.10

(d) Make two valid comments comparing his top speed on the two different bikes.

~~On. aver~~

- Since 57·3 < 59·6 then on average Scot is faster on the new bike.

- Since 1·21 > 1·10 ~~then~~ the ~~new~~ old bike have a more varied time range.

Candidate 4 (Question 8(d))

Scott had a mean top speed on his old bike of 57·3 km/h and a standard deviation of 1·21 km/h.

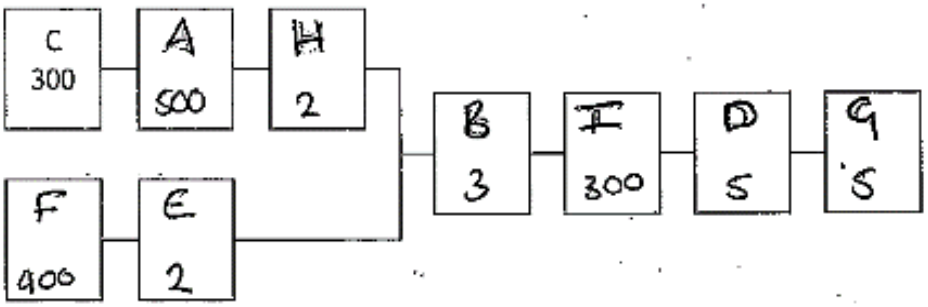
(d) Make two valid comments comparing his top speed on the two different bikes. 2

new bike mean = 59·6
old bike mean = 57·3
SD new bike = 1·07
SD old bike = 1·21

- It could be said that Scotts old bike was faster than his new bike.

- however it could be said that his overall times on his new bike are faster than his old one(s).

Candidate 5 (Question 9(a) and 9(b))



The factory manager thinks that the whole process can be completed in less than 25 minutes.

(b) Based on the times given, is the factory manager correct? yes.

Use your working to justify your answer.

900 + 3 + 300 + 5 + 5 = 1213 ÷ 60

Will take 20 minutes 21 second 20.21

Candidate 6 (Question 9(c))

(c) Calculate the maximum number of boxes that will fit in the container.

1250 ÷ 40 = 31
240 ÷ 60 = 4 = ~~60 boxes~~ 52 boxes
260 ÷ 15 = ~~17~~ 17

240 ÷ 40 = 6
1250 ÷ 60 = 20 = 43 boxes
260 ÷ 15 = 17

240 ÷ 15 = 16
1250 ÷ 60 = 20 = 42
260 ÷ 40 = 6

the maximum number of boxes is 52

Candidate 7 (Question 11(c))