

Question 18**(6 marks)**

The waiting times at a Perth Airport departure lounge have been found to be normally distributed. It is observed that passengers wait for less than 55 minutes, 5% of the time, while there is a 13% chance that the waiting times will be greater than 100 minutes.

- (a) Determine the mean and standard deviation for the waiting times at Perth Airport departure lounge. (5 marks)

- (b) Determine the probability that the waiting time will be between 75 and 90 minutes. (1 mark)