

(ii) Calculate the correlation coefficient, r_s value, for this data using the formula:

(2)

$$r_s = 1 - \frac{6(\sum D^2)}{n(n^2 - 1)}$$

Answer

(iii) The null hypothesis is that there was no significant correlation between the age of the chicken and the mass of the eggs laid.

Another scientist replicated this study and gained a correlation coefficient value of 0.38.

The table shows the critical values at the 95% probability level.

Number of pairs of data	Critical values at the 0.05 % probability level
8	0.738
9	0.683
10	0.648

Explain whether the null hypothesis should be accepted or rejected.

(2)

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(Total for Question 8 = 15 marks)

TOTAL FOR PAPER = 80 MARKS