MATHS

BOOKS - SUPER COMPANION MADE EASY

MATHEMATICAL MODELLING

Exercise A 2 2

1. In each of the problems below, show the

different stages of mathematical modelling for

solving the problems.

1. An ornithologist wants to estimate the number of parrots in a large field. She uses a net to catch some, and catches 32 parrots, which she rings and sets free. The following week she manages to net 40 parrots, of which 8 are ringed.

(i) What fraction of her second catch is ringed ?

2. In each of the problems below, show the different stages of mathematical modelling for solving the problems.

1. An ornithologist wants to estimate the number of parrots in a large field. She uses a net to catch some, and catches 32 parrots, which she rings and sets free. The following week she manages to net 40 parrots, of which 8 are ringed.

(ii) Find an estimate of the total number of parrots in the field.

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3. In each of the problems below, show the different stages of mathematical modelling for solving the problems.

3. A T.V. can be purchased for rs 24000 cash or for rs 8000 cashdown payment and six monthly instalments of rs2800 each.

Ali goes to market to buy a T.V., and he has rs8000 with him.

He has now two options. One is to buy TV under instalment scheme or to make cash payment by taking loan from some financial

society. The society charges simple interest at the rate of 18% per annum simple interest. Which option is letter for Ali ?

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