

AGRICULTURE (Theory)

Dec. 2022 – 2 hours



Name Index Number

Candidate's Signature Date

Instructions to candidates

- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above.
- (c) This paper consists of three sections; **A**, **B** and **C**.
- (d) Answer **all** the questions in sections **A** and **B**.
- (e) Answer any **two** questions in section **C**.
- (f) All answers should be written in the spaces provided.
- (g) **This paper consists of 16 printed pages.**
- (h) **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**
- (i) **Candidates should answer the questions in English.**

For Examiner's Use Only

Section	Questions	Maximum Score	Candidate's Score
A	1-15	30	
B	16-19	20	
C		20	
		20	
Total Score		90	

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SECTION A (30 marks)

Answer **all** the questions in this section in the spaces provided.

1. Give **four** reasons why a farmer may use a *Jembe* instead of a disc plough. (2 marks)

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2. Name **four** sheep breeds reared in Kenya. (2 marks)

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3. Give **four** ways in which a farmer can restrain a bull on the farm. (2 marks)

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4. Name the **four** stages ticks go through in their life-cycle. (2 marks)

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5. State **four** factors that determine the amount of water taken by an animal. (2 marks)

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6. Distinguish between each of the following pair of terms as used in livestock production:

(a) selection and breeding (1 mark)

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(b) inbreeding and line breeding (1 mark)

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7. State **four** signs of parturition in goats. (2 marks)

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8. Name **four** materials a farmer requires in order to construct a barbed wire fence. (2 marks)

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9. State **four** symptoms of coccidiosis infection in chicks. (2 marks)

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10. State **four** management practices carried out to prevent occurrence of parasites in a poultry house. (2 marks)

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11. Name **four** components of milk. (2 marks)

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12. State **four** uses of solar energy in a farm. (2 marks)

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13. (a) State the colour difference between the Galla and Saanen goat breeds. (1 mark)

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(b) Name **one** goat breed that is reared for:

(i) mohair (½ mark)



(ii) meat (½ mark)

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14. State **four** ways in which proper housing helps to control livestock diseases. (2 marks)

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15. State **one** use of each of the following farm tools:

(a) pruning hook

(1/2 mark)

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(b) dosing gun

(1/2 mark)

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(c) bow saw

(1/2 mark)

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(d) crowbar

(1/2 mark)

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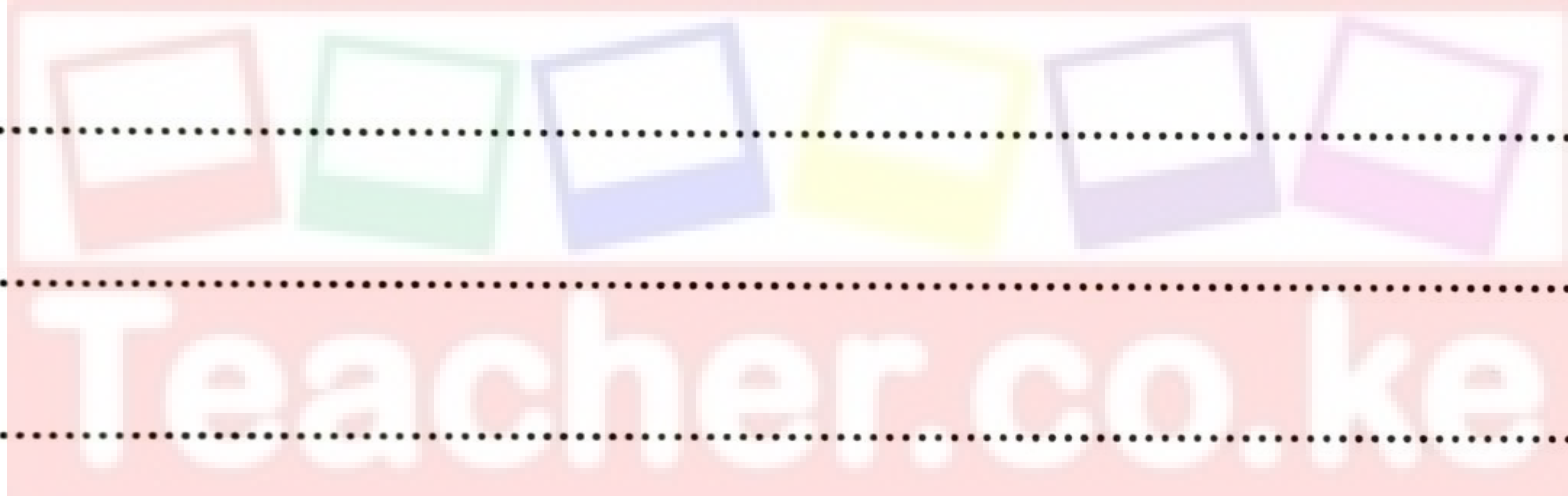


SECTION B (20 marks)

Answer all the questions in this section in the spaces provided.

- 16.** A farmer wants to prepare 100 kg ration containing 20% DCP from wheat (10% DCP) and sunflower seed cake (35% DCP). Using the Pearson's square method, calculate the quantity of wheat and sunflower seed cake the farmer requires. (5 marks)

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17. The picture below shows a poultry rearing system.



(a) Identify the rearing system. (1 mark)

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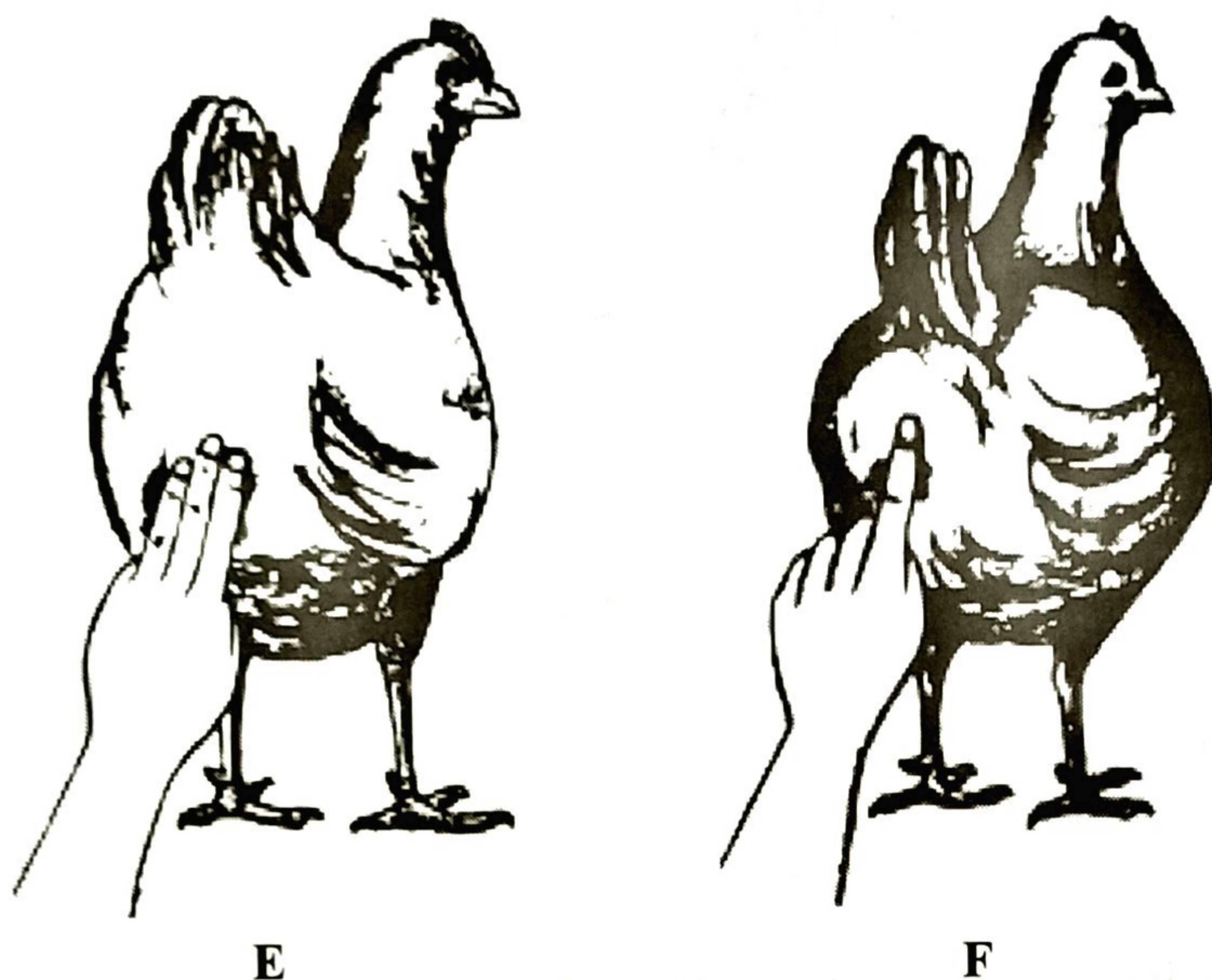
(b) From the picture, state **two** ways in which the system can lead to low egg production. (2 marks)

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(c) State **two** ways in which the rearing system can lead to loss of birds. (2 marks)

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18. The diagram below shows a practice carried out by poultry farmers to determine productivity of layer birds.



(a) Give **one** reason for carrying out the practice in poultry rearing. (1 mark)

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(b) Apart from the practice shown above, give **two** other features observed on the birds to determine productivity. (2 marks)

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(c) From the diagram, which advice should be given to the farmer on each of the birds:

Bird E (1 mark)

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Bird F (1 mark)

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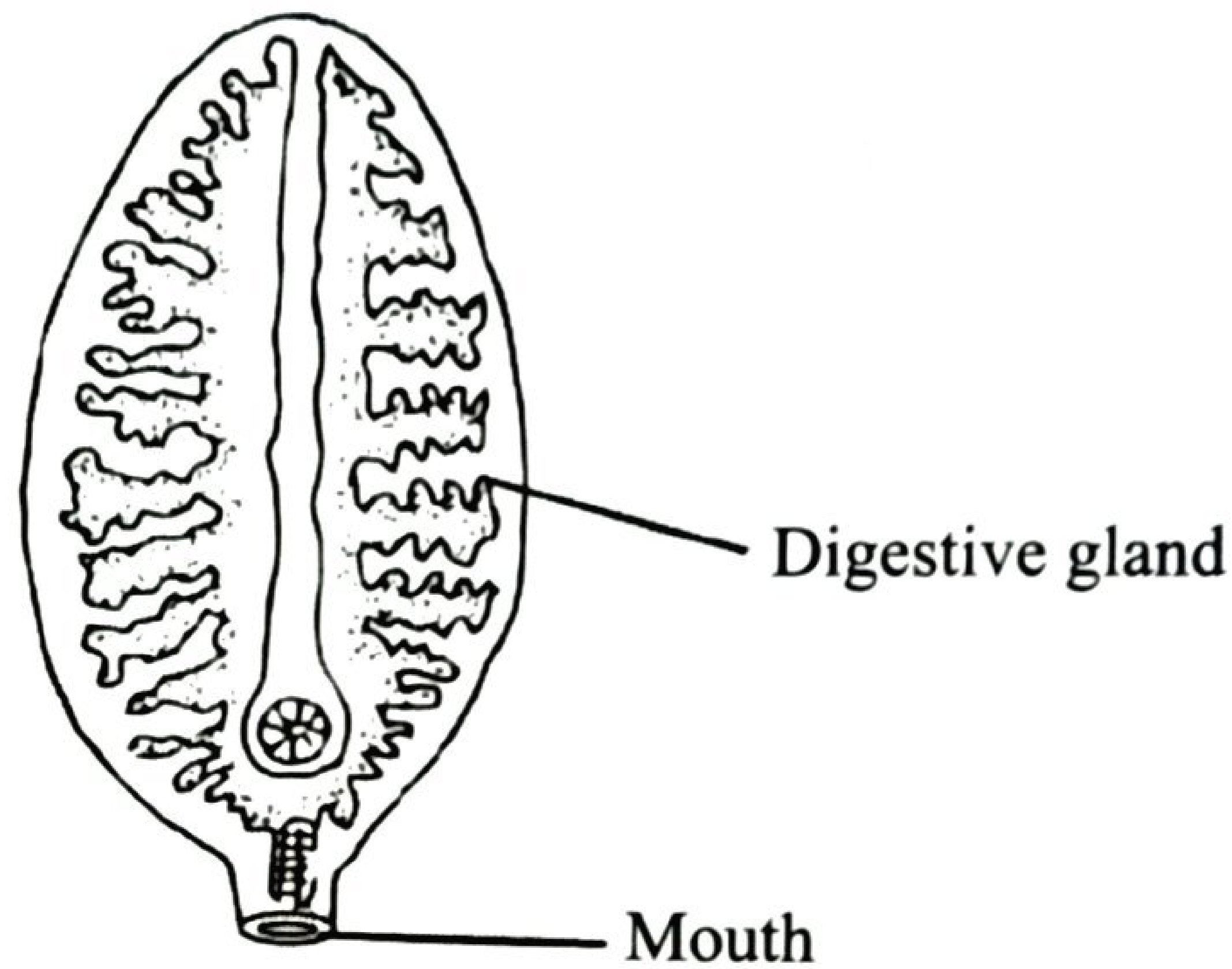
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19. Below is a diagram of a livestock parasite.



(a) Identify the parasite. (1 mark)

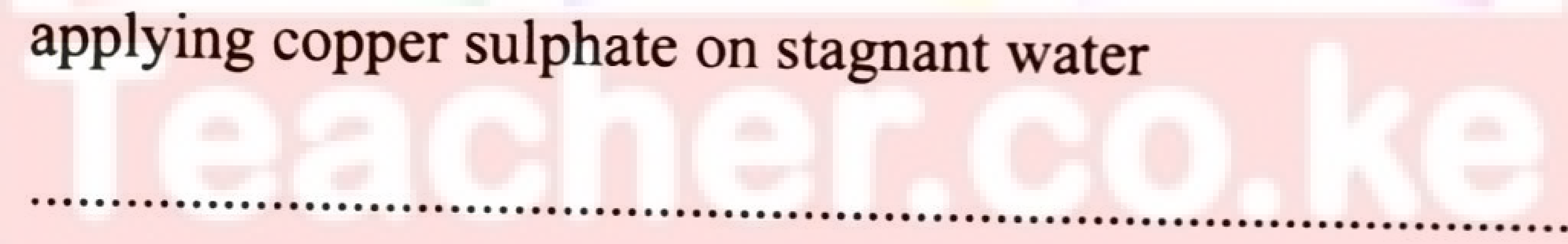
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(b) Name the intermediate host of the parasite. (1 mark)

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(c) Explain how each of the following practices helps to control the parasite:

(i) applying copper sulphate on stagnant water (1 mark)



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(ii) drenching infested animals with antihelmintics (1 mark)

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(iii) rotational grazing (1 mark)

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SECTION C (40 marks)

Answer any two questions from this section in the spaces provided after question 22.

- 20. (a) Give **five** disadvantages of natural incubation in poultry rearing. (5 marks)
- (b) Describe **five** ways of minimising stress in a deep litter poultry rearing system. (5 marks)
- (c) Describe **ten** routine management practices carried out during calf rearing. (10 marks)

- 21. (a) Explain **five** reasons why farmers use animal drawn implements. (5 marks)
- (b) Describe **five** maintenance practices for the water cooling system of a tractor. (5 marks)
- (c) Explain the difference between a spray race and a cattle dip. (10 marks)

- 22. (a) Describe **ten** routine management practices carried out in the rearing of male calves. (10 marks)
- (b) Describe anthrax disease under each of the following sub-headings:
 - (i) causal organism (1 mark)
 - (ii) symptoms of infection (4 marks)
 - (iii) control measures (5 marks)

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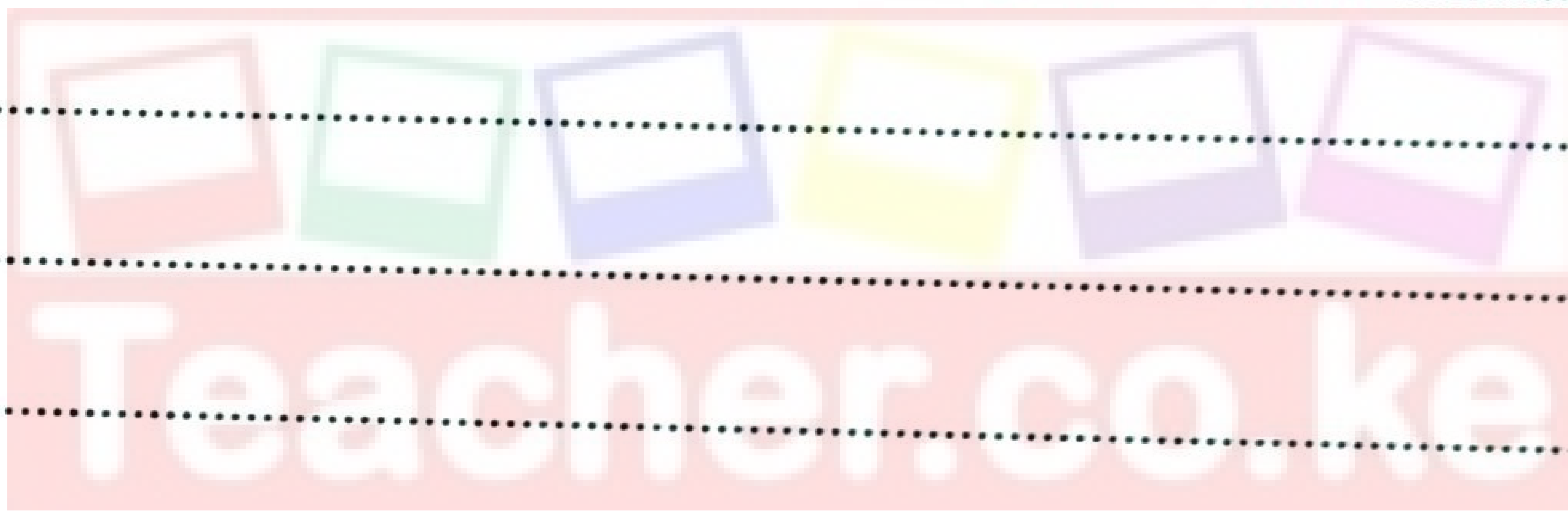
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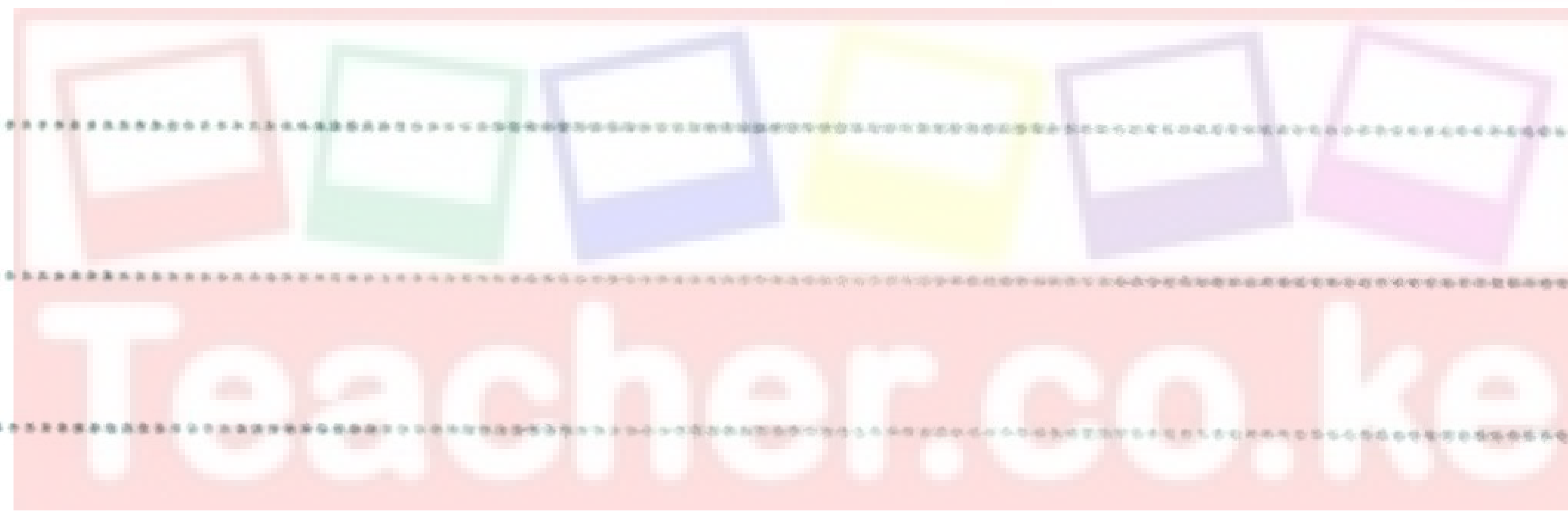
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