SECTION A

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Q1. a) Hutch is a rabbit house or cage which protect them from harm. It can be even used to the chicken. /2marks

buck ≠ doe
he rabbit ≠ she

b) - Out door colonies is a type of hutch which provide for rabbits fresh air allowing them to feel as if they are living in the wild and give them freedom to dig and grow /1,5

Indoor colonies: is a type of hutch where Rabbits are placed inside house or other building, they feel more secured. /1,5

5 marks

Q2: the main environmental elements that interact with the rabbits welfare are:

- Ventillation
- Rabbit need a secure living environment /1
- Rabbit need a large space enough for all exercises /1
- Rabbit need opportunity to hope, jump, without ears tatching the roof /1
- Rabbit need hazards free environment. /1
- Ecological Condition. /1
- Rabbit need stand fully upright on his back Legs /1
- Rabbit need stretch out fully when lying down /1
- A dry and dustless environment /1
- A calm environment /1
- In proximity of human habitation. /1

Consider any four

4 marks

Q3. Criteria which should be considered for selecting the rabbit hutch construction materials

- Availability in local environment /0,5
- Cost of materials /0,5
- Have insulating materials against heat and cold. (vermin protection) /0,5

- ~~High~~ Hygen of materials (easy to clean) /0,5
- Strength of " /0,5
- Durability of " /0,5
- Safety of " /0,5
- Degradation of " /0,5

Consider any SIX

3 marks

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Q4: Any five benefits of nest in rabbit farming

- Facilitate the Doe for preparing bedding /1
- Candling take place in nest and nurse kindles /1
- Protect young rabbit against dirty /1
- Protect young rabbit against cold /1
- No risk of wound while candling /1
- Prevent dampness from the animal urine /1
- Keep the young from leaving the nest too early /1

Consider any five

5 marks

Q5. 4 conditions to be fulfilled for facilitating the welfare of pigs are:

- The pen should be of favorable dimensions /1 (~~Height~~)
- The pen should provide ventillation /1
- Proper feeding and drinking /1
- Good hygeen in pig house and control of disease. /1
- Good favorable t° (between 15-30°C) is provided /1
- ~~orientation~~

Consider any four

4 marks

Q6. a) Ecto-parasites are parasites found on the outside of animals (skin) /1

b) Systematic deworming : is a regulary provision of the dewormer / wormicides for an animal without considering illness /1

c) Endo - parasites : Are parasites, found inside of the animals /1

3 marks

Q7. The six characteristics of the local pig breeds

- Body lengths = 75 - 92 cm /0,5
- Height = 46 - 54 cm /0,5
- The jaw is relatively long and share, similar to wild pig /0,5
- The size of ears is medium and straight /0,5
- The skin is black but some of them have white or pink spots. /0,5
- The hoof color is mainly white /0,5
- litter size of 7 - 8 piglets /0,5
- live weight of adult is 100 kg in national farms /0,5
- small size /0,5
- potential productivity : it gives meats of 75% of live weight. /0,5

Consider any six

3 marks

Q8 : a) Two way in which Foot/mouth disease is controlled are:

- Vaccination /1
- Control of movement of livestock and livestock product (Quarantine) /1
- Destroy all affected animals /1

Consider any two.

b) Area of 5 Boars.

1 Boars require a pen of area 9 - 9,3 m^2 /2 marks

5 boars require at areas of pen

$= 9 \times 5$ to $9,3 \times 5$

$= 45 m^2$ to $46,5 m^2$ /1 mark

5 mark

Q9: Measures to be taken in order to maintain good hygen in pig house.

- Pen should be kept free of manure at all time /1
- Avoid any cracks in the floor or walls /1
- when a group of pig vacates a pen should be cleaned out thoroughly with a pressure hose or brush /1

Consider any three

3 marks

Q10: The condition which should be followed to a) feed correctly layers are:

- Feed the layers with enough feed /1 mark
- Provide feed which contains enough vitamins A to increase yellowing coloration of egg /1 mark
- Feed layers with a ration which contain enough Ca to facilitate the hardness of outer shell of a eggs. /1 mark

b) Calculation of Feed Conversion rate (FCR) =

Data: Quantity of feed consumed = 10800 kg.

Total weight of live stocks = 4650 kg

$FCR = \frac{\text{Total weight consumed}}{\text{Total weight of livestock}} = \frac{10800}{4650} = 2,32$ /1 /1

Do not write in this margin

5 marks

Q11: All in all out in hygene management

- Get out all birds and put them in other poultry house or fanced compound. /1
- Put out all poultry equipment /1
- Clean the poultry house and its equipment correctly /1
- Let the chicken house dry /1
- Put the new letter in the house /1
- Return birds in their shelter. /1

Consider any four

4 marks

Q12: steps to follow, in order to apply correctly ear to ttoo are:

- Choose piglet of 2-3 weeks old. /1
- Take the equipment which consist of pliers and digits (0-9) and tattoo ink. /1
- place the proper digits in the pliers /1
- Apply pressure to the piglet ear until the digit marks are visible. /1
- Proper desmtection of wound /1
- Smear ink on the digit marks /1
- shine a flash light from behind ear to make it easier to read the numbers. /1

Consider any four

4 marks

Q13. Compare Local rabbit with Dutch rabbit.

Local rabbit

- Color = white with chocolate, bluish, lilac gray. /1

- Eyes = black Red ; /1 mark
- Conformation = Look like good /1 mark
- Preference t° = 11° - 20°C /1 mark
- Potential productivity = (1-3kg) at adult age /1 mark
- Indigenous breed. /1 mark

Dutch rabbit small size Consider any two

- Color : pattern black - white /1 mark
- Body weight = 1,5 - 2,5 kg. (Its front is white. /1 mark
- Short fur /1 mark (lower part is black, grey)
- Erect ears and short /1 mark
- originated from Netherland. /1 mark
- eye = dark brown eyes /1 mark Consider any two

4 mark

Q14. necessity of biosecurity measures (quarantine, disposal of dead animals and fencing)

* Quarantine
- Government regulation for preventing transmission of infection diseases /1 mark

* Disposal of dead animals
Died livestock are burried or incinerated in order to stop the disease proliferation /1 mark

Fencing : serves to avoid contamination between herds /1 mark

3 mark

Q15. General conditions for rabbit rearing success are:
- some breed are not productive /1 mark
- Use of improved breeds /1 mark
- Construct a good hutch with standards dimension and allow good ventillation /1 mark
- Proper feeding the rabbit : use balanced diet & qte required /1 mark
- ventilation to evacuate harmful gases and entering good air
- Apply correctly the hygenic conditions : to prevent disease
- Treat correctly the diseased animals /1 mark
- Apply good reproduction rythm : respect interval b/w
- Noise : To avoid too heavy noise. /1 mark

t° plays critical role in survival.

- Light = is required at optimum level /1mark
- orientation = consider direction of wind and circulation of fresh air. in room /1mark consider only five /5marks

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SECTION B

Q16) How to manage the situation when sow dies during Farrowing or fail to produce milk

- Fostering (cut sindrum) /2mark
- Hand feeding would be necessary /1mark
- Cow's milk is the best substitute of sow milk /1mark

b) Any (10) management practices that are applied to keep pig health are:

- Follow strict sanitation /0.5
- Follow any All in All out production system /0.5
- Proper care and nutrition at weaning /0.5
- use fewer gilts in relation to older sow /0.5
- Make sure that new breeds animals are not infected. /0.5
- Avoid over crowding pigs /0.5
- keep pigs of different ages separately /0.5
- Reduce stress of cold and darkness. /0.5
- Adequate Ventilation /0.5
- use spacific pathogen free breeding stock /0.5

c) Any 2 activities to be done for proper use of desinfectant in Piggery /1mark

- Remove all portable equipment for cleaning outside the home or pen /1mark
- Provide vaccine.

10 marks

Do not write in this margin

- Vie - clean the house and Equipment /1 mark
- Thoroughly apply desinfectant to all surface /1 mark
- wait at least 30 min before entering animals and equipment /1 mar

Consider any two

10 marks

Q 17. a) The tangible reasons / facts are:

- Environment of clean drinking water /1 mark
- Environment which contain enough feeds /1 mark
- Environment should be able to cool off for summer /1 mark
- Environment with good ventilation /1 mark

- Consider three

b) The use of the following elements:

i) Mass selection = selection based on external characteristics: It is used when considering inheritable characteristics /1 mark

ii) Contemporary Comparison = selection based comparison of animals of the same age is used on large herd /1 mark

iii) Progeny testing = selection based on performance of offsprings /1 mark

=> It is common when selecting breading boar

c) The problem occured is Anaemia (3 weeks crisis) /1mark
- It is result of lack of Iron (Fe) in milk of sow
- Lack of iron (Fe) because of high number of piglets /1mark

Control: - use of iron injection /1mark
- Swab the udder of the sow with iron solution /1mark
- Place red steile soil in the creep area of the piggery /1mark
- Let sows and piglets out to graze in pasture /1mark

Consider any two.

10mark

Q18: a) The performance of Large white:
- Provide very good quality meat /1mark
- Resist and adapt to various climate and environment /1mark
- Is more prolific 11-12 piglets /1mark

Performance of Landrace
- It is a "butcher" breeds /1mark
- Little resistance, demanding flesh environment /1mark
- Little size 10-12 piglets /1mark

Recommendations:
The large white is more recommended than Landrace. /1mark

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b) Efficiency of the three (3) basic :

- Extensive farming = local breeds are used 0,5 and low quantity feeds lead to poor productivity 0,5
- Semi-intensive = It is when managed the 0,5 performance will be as well as those managed in intensive farming 0,5
- Intensive farming : the growth rate is high 0,5 and high production is found 0,5

10 marks

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Q.19. The kind of solution that can be applied for improving the growth of pigs

- Rear the breed which show resistant to bad condition of t° such as large-white 1 mark
- Construct a pig house which have different pens according to the type of categories of pigs 1 mark
- Improve feeding by use of crop residues left over and commercial feed 1 mark
- Apply good husbandry practices 1 mark
- Respect of hygene and diseases control 1 mark

b) cross breeding =

Suppose that :

A (♀) local breed x B (♂) Landrace.

50% AB 50% (1st generation) x B /1mark

25% AB 75% (2nd generation) x B /1mark

12,5% AB 87,5% (3rd generation) x B /1mark

6,25% AB 93,75% (4th generation) x B /1mark

3,125 AB 96,875% (5th generation) x B /1mark

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10marks

Q20: Reaction of chick on the temperature:

- At high t°, chicken stops feeding and run away to the sides /1mark
- At low t°, they will croud arround the heat source /1mark
- At ideal t°, chickens will be distributed in the brood /1mark
- At draft = the chickens are located in one side /1mark

Consider any TWO

b) Any six (6) indicaters of well cleaned poultry house.

- wall and seiling well ~~swept~~ sweapted /1mark
- Floor not crushed and clean /1mark
- All equipment washed /1mark

- Outside cleaned /1mark
- All manure removed /1mark
- There is new litter (dry, non dusty) /1mark
- Two weeks passed without any entrance to break disease cycle. /1mark

Consider any six

c) The necessity of light for layers are:

- Increase the time for eating /Feed intake increased /1mark
- Increase heart /1mark
- It influence the start of laying of eggs /1mark
- Permit early laying of eggs after a rest period /1mark
- Layering rate is increased /1mark

Consider any Two

10 marks

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Q21. a) The necessity of elements given :

* Soil : It should be well drained /2marks
* Accessibility : where find infrastructure such as water, electricity, road for transport of farming products, market etc /2marks
- Distance from other farms : 150m away from the nearest poultry house and should have its own entrance. /2marks

b) Any four (4) conditions for proper natural incubations

- Broody hen /1mark
- Regular changing of eggs (done by hen) /1mark
- Ventilation /1mark
- Proper humidity / the hen wet its self /1mark
- Provide clean nest /1mark
- Provide the hen with enough food and drinking water. /1mark

Consider any four

10marks

End !!!

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Marking guide

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- the pen should provide ventillation /1
- Proper feeding and drinking /1
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- Good favorable T° (15-30° C) is provided. /1

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4 marks

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Consider any three

3 marks

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Consider any four

4 marks

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- Provide very good quality meat /1
- Resist and adapt to various climate and environment /1
- Is more prolific 11-12 piglets. /1

* Performance of Landrace are.

- It is a butcher breeds /1
- ~~Resist and~~ Little resistance, demanding flesh environment /1
- little size 10-12 piglets /1

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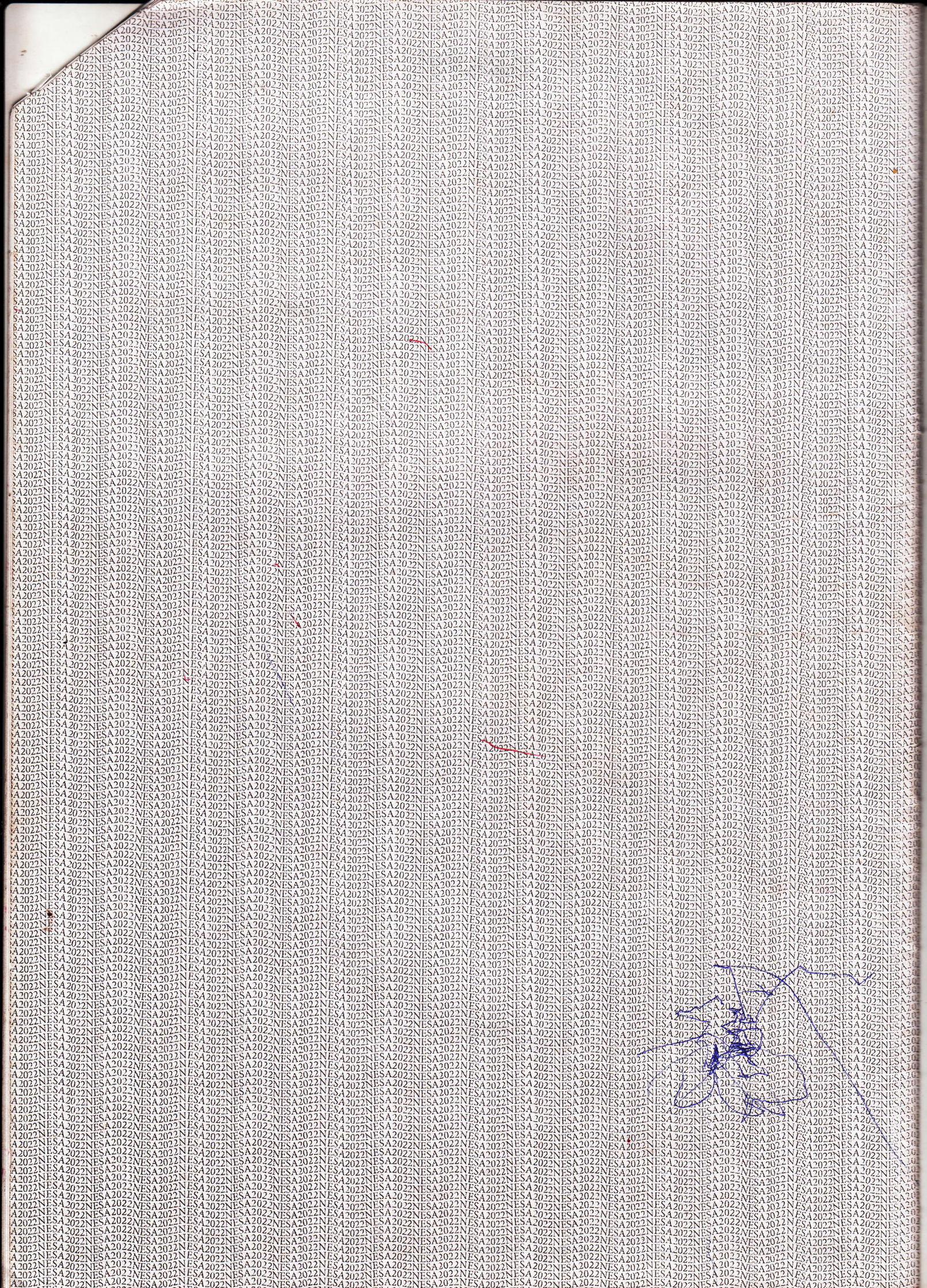
* Intensive farming : the growth rate is high and high production is found. /0,5 /0,5 /0,5

10 marks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