INSTRUCTIONS

Each question is printed both in English and in Kannada.

Answers must be written in the medium specified (English or Kannada) in the Admission Ticket issued to you, which must be stated clearly on the cover of the answer-book in the space provided for this purpose. No credit will be given for the answers written in a medium other than that specified in the Admission Ticket.

Answer five questions in all. Questions 4 and 8 are compulsory. Out of the remaining, candidates should answer any three questions selecting at least one question from each Section. **Section - A** is compulsory. Choose either **Section B** or **C**.

All questions carry equal marks.
SECTION - A

1. India is a slumbering giant of International Dairy Trade. Justify the potential value of this statement.

2. Give a detailed organisational set-up of Artificial Insemination Service in Karnataka.

3. Formulate a ration schedule per day for a herd of 5 milch cows, 3 buffaloes, 5 heifers and 6 calves using local ingredients with home grown green fodder.

OR

List various aquatic environs. Write in brief on aquatic resources of India.

4. Write short notes on any three of the following in about 200 words:

(a) Metabolisable energy

(b) Milk fever

(c) Sire Index

(d) Export of Marine products.
1. ರಸಾಯನಾಧಿಕಾರಿಕು ಸೂಕ್ತತೀರ ಅಧ್ಯಯನಕ್ಕೆ (Dairy Trade) ಮತ್ತು ಅನೇಕ (Slumbering giant) ಮೇಲೆ. ಅಲ್ಲದೆ ತಮ್ಮ ವಿದ್ಯಾತೀತ ಸಂಘಟನೆಯನ್ನು ಸೂಚಿಸುವ.

2. ರೂಪಾಣಾಗಿನ್ನು ತೆಚ್ಚು ದರ್ಶನಗಳು ಹೊಂದಿದಿದ್ದು, ಸಹಜವಾಗಿ ಮತ್ತು ಸಾಮಾನ್ಯವಾಗಿ ಸೇವಿಸಬಹುದು.

3. 5 ಆಗಸ್ಟ್, 6 ಆಗಸ್ಟ್, 7 ಆಗಸ್ಟ್, 8 ಆಗಸ್ಟ್, 9 ಆಗಸ್ಟ್, 10 ಆಗಸ್ಟ್ ಮೇಲೆ ಒಬ್ಬ ವಿಧಾನ ಮತ್ತು ಸುಲಭ ಹೊಂದಿದ್ದಾರೆ, ಪರಿಪಾದ್ಯ ಘಟನೆಯ ಮುಂದುವರಿಸಬಹುದು ಹೊಂದಿರುತ್ತದೆ. ಇದರ ಮೇಲೆ ಸಾಮಾನ್ಯವಾಗಿ ಸ್ವರೂಪಣಗಳು ಹೊಂದಿದ್ದಾರೆ, ಪ್ರೋಜೆಕ್ಟ್‌ಗಳು, ಸ್ವರೂಪಣಗಳು.

4. ಆಯ್ಸಾರರು ಸಾಮಾನ್ಯವಾಗಿ ಸುಲಭವಾಗಿ ಸೂಕ್ತತೀರ ಅಧ್ಯಯನಕ್ಕೆ 200 ರೂಣಾರು, ತಮ್ಮ ಮೂಲಕ ಸೇವಿಸಬಹುದು:

   (a) ಮೆಟೊಬೊಲಿಸಿಬಲ್ ಎರಿ (Metabolisable energy)

   (b) ಮಿಲ್ಕ್ ವೆರ್ (Milk fever)

   (c) ಸ್ಯರೀ ಇಂಡೆಕ್ಸ್ (Sire Index)

   (d) ರೆಕ್ಟೆಲರ್ ಅಂಕೆಗಳು ಸೇರಿ
SECTION - B

5. Compare and contrast the economic efficiency of poultry, pig, sheep and goat as source of meat production in India.

6. What are the fodder requirements of Indian livestock and how to meet them in India?

7. By giving hypothetical example, explain the requirements for establishing a poultry farm with 5,000 broilers.

8. Write short notes on any three of the following in about 200 words each:
   (a) Age at first calving
   (b) Chilling Centre
   (c) Blue tongue in sheep
   (d) Composition of buffalo milk.

OR

SECTION - C

5. Mention the nutritional requirements of carps and prawns. Explain the role of supplementary feeding.

6. What are the different kinds of hatcheries? Give suitability of every hatchery to Indian conditions.

7. Describe the biology of commercially important shell fish.

8. Write short notes on any three of the following in 200 words each:
   (a) Induced maturation
   (b) Bombay Duck — Commercial importance
   (c) Food cycle
   (d) Mussel culture.
5. Livestock, poultry, and fish are examples of domesticated species. How do they differ in terms of their management?

6. What are the main reasons for using Livestocks? Are there any specific breeds that are preferred?

7. The demand for shellfish (Lobsters and crabs) has increased significantly. How can this be addressed through management practices?

8. The local fishing community is facing challenges in terms of sustainable practices. What strategies can be implemented to support them?

   a. Improved fishing techniques
   b. Community-based management
   c. Aquaculture initiatives
   d. Genetic improvement (Composition)

9. Carps and prawns are important species in the local ecosystem. What are the challenges in managing them, and what strategies can be implemented to address these?

10. How can we encourage the use of hatcheries (Supplementary feeding) to support local fish populations?

11. Shellfish (Shell fish) are valuable resources. How can we ensure their sustainable management?

12. What are the steps involved in the management of mussel culture?
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SECTION - A

1. Furnish detailed technical report for establishing artificial insemination service for a district covering 50% of breedable cattle and buffaloes.

2. Write the status of Dairy Co-operative Movement in India.

3. What are the different extension methods adopted to educate farmers on poultry production under rural conditions?

OR

Discuss on important Bacteria responsible for fish spoilage and product spoilage.

4. Write short notes on any three of the following in 200 words each:

   (a) Nutritive aspect of fish oil
   (b) Dual purpose breeds
   (c) Milk replacer
   (d) Urea treatment of straw.


1. 50% ಕೃಷಿಪದ್ಧತಿಯಲ್ಲಿ ತಪ್ಪಲಾಡಣೆಗಳು, ಇತ್ಯಾದಿ ಕೆಲವಾಗಿ ವಿಧಯ ಮಾಡಬೇಕೆಂದು ಪರಿಷ್ಠವಾಯಿತು. ಹಿನ್ನೆಳದಿಗೆ ಹೆಸರು ಕೃಷಿಪದ್ಧತಿಯಲ್ಲಿ ತಿರುಗಾಯಿಸಿರಬೇಕು. ಅದರ ಮೇಲೆ ತಿರುಗಿಸಿರುತ್ತಾರೆ.

2. ನಿಯಮಗಳು ಒದಗಿಸುವಾಗ ಮೇಲೆ ಮೂಲ ಸ್ಥಾನದಲ್ಲಿ ತಿರುಗಿಸಲು ಸಂಖ್ಯೆಯೊಂದು ಬಂದಿರುತ್ತದೆ.

3. ನಿಯಮಕ್ಕೆ ಪರಿ ಮಾಡಿರುವುದು, ಹಿನ್ನೆಲೆ ಸಮಯದಲ್ಲಿ ತಿರುಗಿಸಲು ವಿವರಗಳೊಂದು ಬಂದಿರುತ್ತದೆ. ಅತ್ಯಂತ ಮೂಲಕ ಕಲ್ಪಿಸಬೇಕು?

4. ಇದು ತಂಡದ ಪ್ರತಿನಿಧಿಯ ಬಾರಿಂದ ಮಾಡಿಕೊಂಡ ತಂಡಾಧಿಕಾರಿಗಳಿಗೆ ವಿವರ ಮೂಲಕ 200 ಸಂಖ್ಯೆಯಲ್ಲಿ ಮೇಲೆ ಬಂದಿರುತ್ತದೆ:

(a) ವರ್ಷಾವ್ಯಗಳು

(b) ಉ.ರುರನ್ನಿಕೆ ಗುಣವಾರ (Dual purpose breeds)

(c) ಹಾಸಿ ಕೆಲಸ್ತುಕೆ (Milk replacer)

(d) ಗುಂಪು (Straw) ಮತ್ತು ಹಾಸಿ ಗುಂಪು
SECTION - B

5. For establishing a large scale milk processing plant, what steps and precautions you will take? How will you make it profitable and successful?

6. What is the basis of genetic selection? Describe the different methods of selection.

7. (a) What is the importance of progeny testing of bulls?
(b) What are the stages of progeny testing of bulls?
(c) Work out the requirements for progeny testing of 10 bulls.

8. Write short notes on any three of the following in about 200 words each:
   (a) Rinderpest eradication
   (b) Multiple gene vs Multiple allele
   (c) Vaccination schedule for layers
   (d) Grading of Ghee.

OR

SECTION - C

5. Discuss on the mechanism of ice crystal formation and cell damage. Add a note on the rate of freezing. What are the advantages of quick freezing?

6. Give importance of elasticity in fish paste products. Add a note on suitability of different varieties of fish for the preparation of fish paste products.

7. What are the deck equipments in mechanised fishing crafts? Explain their structure and uses.

8. Write short notes on any three of the following in about 200 words each:
   (a) Fish ham
   (b) Commercial fishing methods
   (c) Preparation of Pearl essence
   (d) Non-edible use of fish oil.


5. 

6. 

7. (a) 

(b) 

(c) 

8. 

(a) 

(b) 

(c) 

(d) 

9. 

10. 

11. 

12. 

(a) 

(b) 

(c) 

(d) 

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