INSTRUCTIONS

This paper consists of Set A and Set B.
Set A is for Animal Husbandry and Veterinary Science candidates.
Set B is for Animal Husbandry and Fisheries candidates.

Answers must be written in the medium opted (i.e. English or Kannada).

Each set has four parts:

A 20 marks
B 100 marks
C 90 marks
D 90 marks

Marks allotted to each question are indicated in each part.
Answer each question in about 50 words. Each question carries 5 marks.

1. Write short notes on the following:
   
   (a) Protein efficiency ratio
   (b) Sahiwal breed of cattle
   (c) Freemartin
   (d) Carrying capacity of water bodies for fishes
PART B

Answer each question in about 100 words. Each question carries 10 marks.

2. Explain the causes of spoilage of meat and write the criteria for refrigeration of meat.

3. Discuss the concept of bypass protein in ruminant feeding.

4. Briefly discuss the semen evaluation tests.

5. What are the important functions of an ideal semen extender?

6. Write the importance and general characteristics of a good Milk replacer/Calf starter.

7. Enumerate the factors affecting milk composition.

8. Discuss the important physical and chemical properties of fresh milk.

9. Discuss dry matter requirements of dairy cows.

10. Feeding of pig is different from other livestock species – Discuss. Give a standard feed formula for adult pigs.

11. Discuss the important points to be considered during selection of species of fish.
PART C

Answer each question in about 150 words. Each question carries 15 marks.

12. Give an account of energy requirement of dairy cattle.

13. Explain the hormonal regulation of lactation.

14. Discuss the role of dairying in rural agriculture. What is the scope and future of dairying in Indian agriculture?

15. Discuss the constraints in sheep production in India.

16. Give the nutritive value of straws and mention the methods of improving it.

17. Give an account of Inland Fisheries of India.
PART D

Answer any three of the following questions, each in about 300 words. Each question carries 30 marks.

18. Give a detailed description of Operation Flood.

19. Explain the general role of minerals in livestock. List out the important functions and deficiency symptoms of major minerals.

20. Write the concept of Contract farming and discuss the status of contract farming in poultry in India.

21. Give an overview of goat production in India.

22. Explain value addition of fish through its products and by-products.
SET B
Animal Husbandry and Fisheries

PART A

Answer each question in about 50 words. Each question carries 5 marks.

1. Write short notes on the following:
   (a) Protein efficiency ratio
   (b) Pelagic Fisheries
   (c) Coefficient of condition of fish
   (d) Ocean Upwelling
PART B

Answer each question in about 100 words. Each question carries 10 marks.

2. Discuss the causes of spoilage of meat and criteria for refrigeration of meat.

3. Briefly discuss the semen evaluation tests.

4. Discuss the factors affecting the milk composition.

5. Give the important characteristics of Mackerel fishes.

6. Discuss the important points to be considered during selection of species of fish.

7. Explain the different methods of carp seed production.

8. Explain the role of fish hatchery in fish production.

9. Explain in brief the technique of Hypophysation.

10. Discuss the different methods of fish curing.

11. Discuss composite fish culture and its importance in enhancing inland fish production.
PART C

Answer each question in about 150 words. Each question carries 15 marks.

12. Discuss the role of dairying in rural agriculture. What is the scope and future of dairying in Indian agriculture?

13. Explain the hormonal regulation of lactation.

14. Write an account of fish paste products.

15. Describe the methods of Oyster farming.

16. Give an account of Inland Fisheries of India.

17. Explain the ideal physico-chemical and biological factors for pond fish culture.
PART D

Answer any three of the following questions, each in about 300 words. Each question carries 30 marks.

18. Give a detailed description of Operation Flood.

19. Write the concept of Contract farming and discuss the status of contract farming in poultry in India.

20. Explain shrimp farming in India.

21. Explain value addition of fish through its products and by-products.

22. Give an account of process of fish freezing.
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This paper consists of Set A and Set B.
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Each set has four parts:

A  20 marks
B  100 marks
C  90 marks
D  90 marks

Marks allotted to each question are indicated in each part.
SET A
Animal Husbandry and Veterinary Science

PART A

Answer each question in about 50 words. Each question carries 5 marks.

1. Write short notes on the following:
   (a) Feeding of breeding bull
   (b) Non-protein nitrogenous compounds
   (c) Grading of buffalo
   (d) Dairy co-operatives in India
PART B

Answer each question in about 100 words. Each question carries 10 marks.

2. Describe the important points to be emphasized while formulating the ration for feeding livestock.

3. Explain the process of hay making.

4. What are the uses of silage making?

5. Give an account of the health hazards associated with consumption of fish and fish products.

6. Discuss about the shellfish group.

7. What is inbreeding? State the advantages and disadvantages of inbreeding.

8. What is cross breeding? Write the advantages of cross breeding.

9. Discuss the significance of Foot and Mouth disease in dairy industry and the control programmes implemented in India.

10. Explain the AGMARK ghee grading.

11. Discuss the animal by-products available from slaughter houses and their economic utilization.
PART C

Answer each question in about 150 words. Each question carries 15 marks.

12. Write the draught breeds of cattle in India, their distribution, characteristics and productivity.

13. Explain the extension methods to educate farmers on livestock production under rural conditions.

14. Discuss about integration of fish farming with Animal Husbandry system.

15. Explain the different methods of selection, their effectiveness and limitations in livestock breeding.


17. Give an account of the viral diseases affecting the sheep, their symptoms, and control.
PART D

Answer any three of the following questions, each in about 300 words.
Each question carries 30 marks.

18. Describe the cross breeding of cattle in India and give the conclusions.

19. Discuss the importance of fodder production in India and explain the different schemes operated for fodder development.

20. Explain the sea-food borne bacteria and their significance in public health.

21. List the Indian dairy products prepared from milk and explain the preparation and storage of ghee.

22. Describe the general principles and problems of meat inspection in India.
SET B
Animal Husbandry and Fisheries

PART A

Answer each question in about 50 words. Each question carries 5 marks.

1. Write short notes on the following:

   (a) Feeding of breeding bull

   (b) Non-protein nitrogenous compounds

   (c) Sea-food toxins

   (d) Freezing curve
PART B

Answer each question in about 100 words. Each question carries 10 marks.

2. Describe the important points to be emphasized while formulating the ration for feeding livestock.

3. Explain the process of hay making.

4. What are the uses of silage making?

5. Give an account of the health hazards associated with consumption of fish and fish products.

6. Discuss about the shellfish group.

7. What is inbreeding? State the advantages and disadvantages of inbreeding.

8. Explain the proximate composition of fish.

9. Describe the advantages of fish mince and explain the production of fish mince.

10. What is marinading of fish? Explain the types of marinades.

11. What is chitin? Explain the process of preparation of chitin and chitosan.
PART C

Answer each question in about 150 words. Each question carries 15 marks.

12. Write the draught breeds of cattle in India, their distribution, characteristics and productivity.

13. Explain the extension methods to educate farmers on livestock production under rural conditions.

14. Discuss about the integration of fish farming with Animal Husbandry system.

15. Explain the different methods of freezing for fish and fish products and discuss about selecting a method for freezing fish.

16. Describe the post-mortem changes on quality of fish meat.

17. Describe the preparation of fish meal, the nutritive value and storage.
PART D

Answer any three of the following questions, each in about 300 words. Each question carries 30 marks.

18. Describe the cross breeding of cattle in India and give the conclusions.

19. Discuss the importance of fodder production in India and explain the different schemes operated for fodder development.

20. Explain the sea-food borne bacteria and their significance in public health.

21. What are the advantages of canning of fish? Explain the general canning procedure.

22. Explain the classification of fishing gears in detail.