

EXAM SYLLABUS

Animal World Movements Organ Systems Functions Syllabus

6 subjects · 44 topics · 180 min · 70 marks

Detailed syllabus for Animal World Movements Organ Systems and their functions including man. Covers organ systems, nutrition, deficiency diseases, and animal behavior.

WHAT TO STUDY FIRST

Begin by thoroughly understanding the various organ systems and their functions, as this forms the foundational knowledge for many other topics. Prioritize the Digestive, Respiratory, Circulatory, Excretory, Nervous, Endocrine, Skeletal, and Reproductive systems. Once these are mastered, move on to nutrition, deficiency diseases, and finally, animal behavior and economic importance. Referencing NCERT biology textbooks for basic human physiology and comparative anatomy will be highly beneficial.

EXAM PATTERN

180 min · 33 questions · 70 marks · Mixed

Theory Paper (2025-26)

Marking: Section A: 16 questions (1 mark each) = 16 marks. Section B: 5 questions (2 marks each) = 10 marks. Section C: 7 questions (3 marks each) = 21 marks. Section D: 2 Case-Based Questions (4 marks each) = 8 marks. Section E: 3 Long Answer Questions (5 marks each) = 15 marks. Total theory marks = 70. Practical exam carries 30 marks.

Negative: No explicit mention of negative marking in the provided sources for the CBSE Class 12 Biology theory paper.

Section A

16 Q · 16 marks

MCQ

Section B

5 Q · 10 marks

Short Answer

Section C

7 Q · 21 marks

Short Answer

Section D

2 Q · 8 marks

Case-Based Questions

Section E

3 Q · 15 marks

Long Answer Questions

- Theory paper duration: 3 hours (180 minutes).
- Total marks for theory paper: 70.
- Includes MCQs, case-based questions, short and long answer types.
- Internal choice may be provided in some questions.
- Diagrams are crucial and need to be practiced well.

01 Animal Movements

4 topics · Not Specified

RECOMMENDED BOOKS

- NCERT Biology Textbooks (Classes XI-XII)
- Comparative Vertebrate Anatomy by Kenneth Kardong

- 1 Mechanisms of movement in animals
- 2 Skeletal muscle physiology
- 3 Role of nervous system in coordination of movement
- 4 Adaptations for different modes of locomotion

02 Organ Systems and their Functions (Including Man)

9 topics · High

RECOMMENDED BOOKS

- NCERT Biology Textbooks (Classes XI-XII)
- Human Physiology by Tortora & Derrickson
- Textbook of Animal Physiology by P. L. Raheja

- 1 Digestive System: Organs, enzymes, and absorption
- 2 Respiratory System: Lungs, airways, and gas exchange
- 3 Circulatory System: Heart structure, blood composition, and vessels
- 4 Excretory System: Nephron function and urine formation
- 5 Nervous System: Neurons, synapses, CNS, and PNS
- 6 Endocrine System: Glands, hormones, and feedback mechanisms
- 7 Skeletal System: Bone types, joint articulation, and muscle attachment
- 8 Reproductive System: Gametogenesis, fertilization, and hormonal control
- 9 Sense organs in man: Structure and function of eyes, ears, nose, tongue, and skin

03 Nutrition and Deficiency Diseases in Man

7 topics · Medium

RECOMMENDED BOOKS

- Human Physiology by Guyton and Hall
- Nutritional Sciences: From Fundamentals to Food by Caroline R. Lamendella & Carole A. Bisogni

- 1 Carbohydrates, Proteins, and Fats: Metabolism and requirements
- 2 Vitamins: Water-soluble and fat-soluble vitamins
- 3 Minerals: Major and trace minerals
- 4 Protein-Energy Malnutrition (PEM): Kwashiorkor and Marasmus
- 5 Vitamin Deficiencies: Night blindness (Vit A), scurvy (Vit C), rickets (Vit D)
- 6 Mineral Deficiencies: Anemia (Iron), goitre (Iodine)

04 First Aid, HIV/AIDS

10 topics · Medium

RECOMMENDED BOOKS

— First Aid Manual (e.g., Red Cross)

— Introduction to Public Health by Turnock

- 1 Wound management and bleeding control
- 2 Cardiopulmonary Resuscitation (CPR)
- 3 Fracture management and splinting
- 4 Burns and scalds: Treatment
- 5 Snake bites and insect stings: First aid
- 6 HIV: Structure and life cycle
- 7 AIDS: Progression and symptoms
- 8 Modes of HIV transmission
- 9 Prevention strategies for HIV
- 10 Safe practices in first aid to prevent transmission

05 Animal Behaviour

6 topics · Medium

RECOMMENDED BOOKS

— Animal Behavior: Concepts, Methods, and Applications by Nordell & Valone

— Introduction to Animal Behavior by Dugatkin

- 1 Instinct vs. Learning
- 2 Communication in animals
- 3 Parental care and altruism
- 4 Territoriality and aggression
- 5 Migration and navigation
- 6 Sociobiology: Kin selection and cooperation

06 Economic Importance of Animals

8 topics · Medium

RECOMMENDED BOOKS

— Economic Importance of Animals (Relevant textbooks for Animal Husbandry/Zoology)

— NCERT Class 10 Science Book (for basic concepts)

- 1 Animal Husbandry: Principles and practices
- 2 Dairy farming: Breeds, management, and products
- 3 Poultry farming: Breeds, housing, and disease control

- 4 Fish culture (Pisciculture): Types of aquaculture, species
 - 5 Silkworm rearing (Sericulture): Mulberry cultivation, cocoon production
 - 6 Beekeeping (Apiculture): Honey bee biology, management
 - 7 Economic contributions of animals to agriculture and industry
 - 8 Harmful animals and their impact (e.g., pests, disease vectors)
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6 subject(s), 44 topics listed above. Verify critical details with the official exam notification before applying.