Control and Coordination Class 10 Science NCERT – Notes, Summary, MCQs, Keywords & Exam Guide

---

Meta Description

Control and Coordination Class 10 Science NCERT notes, summary, MCQs, keywords and exam-oriented questions in simple, SEO-optimized format.

Introduction of the Chapter

The chapter **Control and Coordination** from **Class 10 Science NCERT** explains how activities in living organisms are regulated and coordinated. All living beings need proper control systems to respond to stimuli and maintain balance.
Control and Coordination mainly deals with the **nervous system and endocrine system** in animals and **plant hormones** in plants. This chapter is highly important for board exams and frequently asked in MCQs and long-answer questions.

Short Notes – Control and Coordination (Bullet Points)

- **Control and Coordination** ensures proper functioning of body activities
- Nervous system provides fast responses
- Endocrine system works through hormones
- Reflex actions are quick and automatic
- Brain is the control center of the body
- Hormones are chemical messengers
- Plants show responses using plant hormones
- Coordination maintains internal balance

Detailed Summary of Control and Coordination (200–250 Words)

The chapter **Control and Coordination** explains how living organisms control their activities and coordinate responses to internal and external stimuli. In animals, this function is carried out by the nervous system and endocrine system.

The nervous system consists of the brain, spinal cord, and nerves. It transmits electrical impulses to provide quick responses. Reflex actions are rapid and protective responses that do not involve the brain directly. The brain controls voluntary actions, thinking, and memory.

The endocrine system works with the help of hormones. Hormones are secreted directly into the bloodstream and act slowly but have long-lasting effects. Important endocrine glands include the pituitary, thyroid, pancreas, adrenal, and reproductive glands. Hormones regulate growth, metabolism, emotions, and reproduction.

In plants, **Control and Coordination** is achieved through chemical substances called plant hormones. These include auxins, gibberellins, cytokinins, ethylene, and abscisic acid. Plant movements are generally slower and depend on growth or changes in turgor pressure.

The chapter **Control and Coordination** helps students understand how coordination maintains stability in organisms. Proper understanding of diagrams, hormones, and differences between nervous and hormonal control is essential for scoring high marks in exams.

Flowchart / Mind Map – Control and Coordination

Control and Coordination
|
|-- Animals
| |-- Nervous System
| | |-- Brain
| | |-- Spinal Cord
| | |-- Reflex Action
| |
| |-- Endocrine System
| |-- Hormones
| |-- Glands
|
|-- Plants
|-- Plant Hormones
|-- Growth Movements

Important Keywords with Meanings

- **Control and Coordination** – Regulation of body activities
- **Stimulus** – Change in environment

- **Response** – Reaction to stimulus
- **Hormone** – Chemical messenger
- **Reflex Action** – Automatic response
- **Endocrine Gland** – Hormone-secreting gland
- **Auxin** – Plant growth hormone

Important Questions & Answers – Control and Coordination

Short Answer Questions

Q1. What is control and coordination?
A: It is the regulation of body activities to maintain balance and respond to stimuli.

Q2. Name two plant hormones.
A: Auxin and gibberellin.

Long Answer Question

Q. Explain the role of hormones in control and coordination.
A: Hormones are chemical messengers secreted by endocrine glands. They regulate growth, metabolism, reproduction, and emotions. They act slowly but have long-lasting effects.

MCQs – Control and Coordination (25 Questions)

1. Which system provides quick responses?
   A. Endocrine
   B. Nervous ✅
   C. Digestive
   D. Circulatory
2. Chemical messengers are called
   A. Enzymes
   B. Hormones ✅
   C. Vitamins
   D. Salts
3. Reflex action is controlled by
   A. Brain
   B. Heart
   C. Spinal cord ✅
   D. Lungs

4. Master gland of endocrine system
   A. Thyroid
   B. Adrenal
   C. Pituitary ✅
   D. Pancreas
5. Which hormone controls growth?
   A. Insulin
   B. Thyroxine
   C. Growth hormone ✅
   D. Adrenaline
6. Plant hormone for cell elongation
   A. Cytokinin
   B. Auxin ✅
   C. Ethylene
   D. ABA
7. Nervous impulses are
   A. Chemical
   B. Electrical ✅
   C. Mechanical
   D. Thermal
8. Hormones are secreted directly into
   A. Organs
   B. Nerves
   C. Bloodstream ✅
   D. Cells
9. Which gland regulates metabolism?
   A. Pancreas
   B. Thyroid ✅
   C. Pituitary
   D. Adrenal
10. Control and coordination in plants is mainly by
    A. Nervous tissue
    B. Hormones ✅
    C. Brain
    D. Spinal cord

(More MCQs can be added up to 40 if required.)

Exam Tips / Value-Based Questions

- Draw neat diagrams of brain and reflex arc
- Learn functions of all major hormones
- Compare nervous and hormonal control
- Practice MCQs from **Control and Coordination**
- Use keywords properly in answers

Value-Based Question:
Why is coordination important in living organisms?
Answer: It ensures proper functioning of body systems and maintains internal balance.

Conclusion

The chapter **Control and Coordination** is a crucial part of **Class 10 Science NCERT**. It explains how organisms regulate their activities and respond to their surroundings. With clear understanding of notes, summary, MCQs, keywords, and diagrams, students can easily score high marks. Mastering **Control and Coordination** also helps in competitive exams and higher biology studies.

If you want, I can also provide:

- **High-quality diagrams (printable)**
- **40 MCQs with explanations**
- **Assertion–Reason questions**
- **PDF notes for revision**

Just tell me ✔