

Chemical Coordination and Integration — Assignment 1

Class 11 Biology · Topic-wise question bank covering every concept of the chapter · Narayan Gurukul Academy

Instructions: (1) Attempt all questions. This worksheet walks through every concept of the chapter, topic by topic.
(2) The interactive MCQ version of these questions (with instant answer reveal) is available on the notes page.
(3) Universal values: $g = 10 \text{ m/s}^2$ unless stated. Give answers with correct SI units.

Endocrine System and Hormones

MCQ Questions (choose the correct option)

- Hormones are secreted by
 - endocrine glands
 - exocrine glands
 - nerve cells only
 - muscles
- Hormones are transported by the
 - blood
 - lymph only
 - nerves
 - ducts
- Hormones are effective in
 - very small amounts
 - large amounts
 - equal amounts always
 - unlimited amounts
- The endocrine system works with the
 - nervous system
 - digestive system only
 - skeletal system only
 - respiratory system only

1 Mark Questions

- What are hormones?
- How are hormones transported in the body?
- Name one endocrine gland.

2 Mark Questions

- Distinguish between endocrine and exocrine glands.
- State two characteristics of hormones.

3 Mark Questions

- Describe the endocrine system and its functions.
- Explain the role of hormones in chemical coordination.

Hormones of the Pituitary and Hypothalamus

MCQ Questions (choose the correct option)

1. The pituitary gland is located in the
 - (A) sella turcica
 - (B) neck
 - (C) abdomen
 - (D) thorax
2. The hormone that controls other endocrine glands is from the
 - (A) anterior pituitary
 - (B) thyroid
 - (C) adrenal
 - (D) pancreas
3. The hypothalamus controls the pituitary by
 - (A) releasing hormones
 - (B) direct nerve supply only
 - (C) blood pressure
 - (D) enzymes
4. Growth hormone is secreted by the
 - (A) anterior pituitary
 - (B) posterior pituitary
 - (C) thyroid
 - (D) adrenal cortex

1 Mark Questions

1. Where is the pituitary gland located?
2. Which hormone is called the growth hormone?
3. How does the hypothalamus control the pituitary?

2 Mark Questions

1. Name two hormones of the anterior pituitary.
2. State the function of antidiuretic hormone.

3 Mark Questions

1. Describe the hormones of the pituitary and hypothalamus.
2. Explain the role of the hypothalamus as a master regulator.

Thyroid, Parathyroid, Adrenal and Pancreas

MCQ Questions (choose the correct option)

1. Thyroxine is secreted by the
 - (A) thyroid gland
 - (B) parathyroid
 - (C) adrenal
 - (D) pancreas
2. The hormone that lowers blood glucose is

- (A) insulin
 - (B) glucagon
 - (C) thyroxine
 - (D) adrenaline
3. The hormone that raises blood glucose is
- (A) glucagon
 - (B) insulin
 - (C) thyroxine
 - (D) aldosterone
4. The parathyroid gland secretes
- (A) parathormone
 - (B) thyroxine
 - (C) insulin
 - (D) adrenaline

1 Mark Questions

1. Which gland secretes thyroxine?
2. Which hormone lowers blood glucose?
3. Which hormone raises blood glucose?

2 Mark Questions

1. Distinguish between insulin and glucagon.
2. State the function of parathormone.

3 Mark Questions

1. Describe the hormones of the thyroid, parathyroid, adrenal and pancreas.
2. Explain the role of insulin and glucagon in blood glucose regulation.

Other Endocrine Glands

MCQ Questions (choose the correct option)

1. The thymus gland is associated with
 - (A) immune function
 - (B) digestion
 - (C) respiration
 - (D) excretion
2. The hormone melatonin is secreted by the
 - (A) pineal gland
 - (B) thyroid
 - (C) adrenal
 - (D) pancreas
3. The hormone secretin is secreted by the
 - (A) gastrointestinal tract
 - (B) thyroid
 - (C) adrenal

- (D) pineal
- 4. The gonads secrete
 - (A) sex hormones
 - (B) insulin
 - (C) thyroxine
 - (D) adrenaline

1 Mark Questions

1. Name the hormone secreted by the pineal gland.
2. What is the function of the thymus?
3. Name one gastrointestinal hormone.

2 Mark Questions

1. Name two endocrine tissues other than the major glands.
2. State the function of melatonin.

3 Mark Questions

1. Describe the other endocrine glands and their hormones.
2. Explain the hormones of the thymus, pineal and gastrointestinal tract.

Mechanism of Hormone Action

MCQ Questions (choose the correct option)

1. Hormones that act on membrane receptors are
 - (A) protein hormones
 - (B) steroid hormones
 - (C) thyroid hormones
 - (D) lipid hormones
2. Steroid hormones act by
 - (A) entering the cell and affecting gene expression
 - (B) binding surface receptors only
 - (C) blocking ion channels
 - (D) diffusing out of cells
3. The second messenger often formed by protein hormones is
 - (A) cyclic AMP
 - (B) ATP
 - (C) DNA
 - (D) RNA
4. Hormone receptors are located on the
 - (A) target cell
 - (B) any cell
 - (C) blood vessels only
 - (D) neurons only

1 Mark Questions

1. Where do protein hormones act?
2. How do steroid hormones act?
3. What is a second messenger?

2 Mark Questions

1. Distinguish between protein and steroid hormone action.
2. Explain the role of cyclic AMP as a second messenger.

3 Mark Questions

1. Describe the mechanism of hormone action.
2. Explain the two types of hormone action with examples.

Feedback Control and Diagnosis

MCQ Questions (choose the correct option)

1. The regulation of hormone secretion by its own level is called
 - (A) feedback control
 - (B) positive pressure
 - (C) diffusion
 - (D) osmosis
2. A rise in blood glucose leads to increased secretion of
 - (A) insulin
 - (B) glucagon
 - (C) thyroxine
 - (D) adrenaline
3. Negative feedback helps to
 - (A) maintain homeostasis
 - (B) increase disorder
 - (C) stop all secretion
 - (D) increase randomness
4. Radioimmunoassay is used to
 - (A) measure hormone levels
 - (B) destroy hormones
 - (C) transport hormones
 - (D) store hormones

1 Mark Questions

1. What is feedback control?
2. What is the effect of a rise in blood glucose?
3. What is radioimmunoassay used for?

2 Mark Questions

1. Explain negative feedback with one example.
2. Name one technique for measuring hormone levels.

3 Mark Questions

1. Describe the feedback control of hormone secretion.
2. Explain the diagnosis of hormonal disorders.

Disorders of the Endocrine System

MCQ Questions (choose the correct option)

1. Deficiency of thyroxine in children causes
 - (A) cretinism
 - (B) goitre only
 - (C) diabetes
 - (D) dwarfism only
2. Excess growth hormone in adults causes
 - (A) acromegaly
 - (B) dwarfism
 - (C) cretinism
 - (D) goitre
3. Diabetes mellitus is caused by deficiency of
 - (A) insulin
 - (B) glucagon
 - (C) thyroxine
 - (D) adrenaline
4. Exophthalmic goitre is caused by
 - (A) hyperthyroidism
 - (B) hypothyroidism
 - (C) hypoparathyroidism
 - (D) hyperinsulinism

1 Mark Questions

1. Name the disorder caused by insulin deficiency.
2. What is acromegaly?
3. What causes exophthalmic goitre?

2 Mark Questions

1. Distinguish between diabetes mellitus and diabetes insipidus.
2. Name two disorders of the thyroid gland.

3 Mark Questions

1. Describe the disorders of the endocrine system.
2. Explain cretinism, dwarfism and acromegaly.