



DEPARTMENT OF SCIENCE (2022-2023)

	INDIAN SCHOOL AL WADI AL KABIR	
Class: XI	Department: SCIENCE 2022 – 23 SUBJECT: BIOLOGY	Date of submission: 09.02.2023
Worksheet WITH ANSWERS	UNIT: HUMAN PHYSIOLOGY CHEMICAL COORDINATION AND INTEGRATION	Note: A4 FILE FORMAT
NAME OF THE STUDENT	CLASS & SEC:	ROLL NO.

OBJECTIVE TYPE QUESTIONS (1 Marks.)

- _____ controls the concentration of urine
 - ADH
 - Oxytocin
 - ACTH
 - None of the above
- Children who have damaged thymus may result in_____
 - Loss of an antibody-mediated immunity
 - Reduction in stem cell production
 - Deafness
 - Loss of cell-mediated immunity
- Deficiency of this element causes the thyroid gland to swell up
 - Calcium
 - Iodine
 - phosphorous
 - None of the above
- If too much growth hormone is released during the growth period, it can cause _____
 - Acromegaly
 - Crohn's Disease
 - Gigantism
 - None of the above
- Endemic goitre relates to
 - Increased Pancreases function
 - Increased Thyroid function
 - Decreased Thyroid function
 - Decreased Pancreases function
- _____ secretes glucagon hormone
 - Thyroid gland
 - Pituitary gland
 - Liver

- d. Pancreas
7. Name the hormone that is responsible for milk secretion after parturition.
- Insulin
 - Prolactin
 - Lactogen
 - None of the above

SHORT ANSWER TYPE QUESTION (2 Marks)

- Q.8. Which hormone aids in cell-mediated immunity? Why do old people have a weak immunity system?
- Q.9. How does hypothyroidism affect the maturation and development of a growing baby, generally seen during pregnancy?
- Q.10. Differentiate between hyperthyroidism and hypothyroidism.

LONG ANSWER TYPE QUESTIONS (3 Marks)

- Q.11. A urine sample contained increased content of glucose and ketone bodies. Answer the questions below based on this observation.
- Name the hormone and gland associated with this condition.
 - On which cells do these hormones act?
 - Name the condition. How can it be rectified?
- Q.12. Explain why hypothalamus is a super master endocrine gland.

Some Important Hints

ANSWERS MCQs (1-12)

1 – a	2 – a	3 – b	4 – c
5 – c	6 – d	7 – b	

A.8. Thymosin plays a significant role in the differentiation and development of T-lymphocytes that provide cell-mediated immunity.

In older individuals, the thymus degenerates thus causing a decreased thymosin secretion. Hence their immune system becomes weak.

A.9. During pregnancy, hypothyroidism causes defective maturation and development of the foetus, that induces a stunted growth, low Intelligence, mental retardation, deaf-mutism, abnormal skin, etc.

A.10. Hyperthyroidism is the over secretion of thyroid hormone and occurs due to the cancer of the thyroid gland whereas hypothyroidism is the low secretion of the thyroxine hormone.

- A.11. a) Insulin hormone and Insulin gland.
 b) It acts on the β -cells of islets of Langerhans present in the pancreas

c) Prolonged hyperglycaemia causes diabetes mellitus that is linked to loss of glucose via urine and accumulation of harmful compounds called as ketone bodies. Insulin therapy can be successfully used to treat Diabetic patients.

A.12. *The hypothalamus controls an array of functions.

*It has many groups of neurosecretory cells known as nuclei that produce hormones.

* These hormones maintain the secretion and synthesis of pituitary hormones.

*The hormones produced by the hypothalamus are – the releasing hormones and the inhibiting hormones.

*The releasing hormones trigger the secretion of pituitary hormones and the inhibiting hormones hinder the secretions of the pituitary hormones.

* Hypothalamus directly regulates the posterior pituitary. It also synthesizes two hormones – vasopressin and oxytocin which are further conveyed to the posterior pituitary.

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