Class 10

I. Vocabulary training

Task 1. Translate into English

Переносить гормоны, подавлять раздражители, медленная выработка гормонов, посылать команды гипофиза, управлять активностью гипоталамуса, реагировать на раздражители, связь между железой и целевым органом, количество протоков, возбуждать (стимулировать) нервные клетки.

Task 2. Answer the following questions to the text Principles of endocrine and nervous control

1. What does the nervous system serve for?
2. How does the hormonal system regulate the body activities?
3. How do the secretions of exocrine glands reach the target organs?
4. How do the secretions of endocrine glands reach the target organs?
5. How do the hormones influence the physiological processes?
6. What are the roles of the pituitary gland and the hypothalamus?
7. What are the main tasks of the nervous system?

II. Grammar training

Task 3. Put the verbs into the correct tense form (Present Perfect/ Present Simple/ Past simple). Make a special and a subject question to each sentence.

1) The nervous system (to regulate) the activities of the organism. 2) Students (to study) hormonal system last term. 3) Scientists just (to perform) an experiment. 4) The nervous system (to link) various organs and systems. 5) Physical conditions (to affect) the results of the previous experiment. 6) Changes in hormonal activity already (to influence) the metabolism. 7) Physical activity (to cause) the heart and lungs to work more intensively. 8) The nurse (to take) the patient's temperature an hour ago. 9) The organism (to adapt) itself to its environment as a rule. 10) This biochemist never (to interpret) the data of sputum analyses.

Task 4. Read the case. Paraphrase the information in Perfect tenses (Present, Past, future) using the context given in brackets.

1) Doctor A. sends his patients to the diagnostic laboratory to make a total blood count. (recently)
2) The patients submit all their referrals to the laboratory. (this week)
3) The registering clerk writes down their names, age and the analyses administered by the doctors. (already)
4) The registering clerk provided necessary information about the procedure. (before the procedure started)
5) The nurses withdraw some blood for the analysis. (just)
6) The laboratory assistants will process the sample. (by the end of the following day).

7) They will send the results and the diagnostic comments to the Doctor A's office (by the next visit of the patients).

Task 5. Translate the sentences into English (Present Perfect/ Present Simple/ Past simple).

1. Гипофиз управляет железами. 2. Пищеварительная система уже переработала углеводы. 3. Гормоны подавляли реакции. 4. Организм получает жиры и другие компоненты пищи. 5. Кровь уже доставила питательные элементы к органам. 6. Мозг посылает команды. 7. Тонкий кишечник уже поглотил белки и жиры. 8. Нервная система медленно реагировала на раздражители. 9. Пища подвергается обработке.

III. Informative reading. Read the text and use internet resources to complete the table

Hormone	***Organ producing this hormone***	***Functions of the hormone***

Functions and Importance of Hormones

Hormones are chemical messengers produced by various glands and tissues in the body. They are secreted into the bloodstream and travel to target cells or organs, where they exert specific effects.

Hormones regulate and coordinate numerous physiological processes, including growth and development, metabolism, reproduction, and stress response. Examples of endocrine glands include: pituitary gland, thyroid gland, adrenal glands, pancreas.

The thyroid gland produces thyroid hormones, crucial for maintaining metabolic rate, growth, and development.

The pancreas releases insulin, a hormone that regulates blood sugar levels and facilitates cell glucose uptake for energy production.

The adrenal glands, part of the endocrine system, secrete stress hormones such as cortisol, adrenaline (epinephrine), noradrenaline (norepinephrine)

Cortisol, in particular, helps mobilize energy reserves and suppress non-essential functions during stress. Prolonged or chronic stress can disrupt the normal balance of stress hormones and harm health.

The pineal gland secretes melatonin, a hormone involved in the sleep-wake cycle. Melatonin is released in response to darkness, signaling the body that it is time to sleep.

Other hormones like cortisol and serotonin fluctuate throughout the day, influencing alertness, mood, sleep patterns.