

**PROGRAMME FOR THE ISSUE OF DIFFERENTIATED CREDITS ON ENDOCRINOLOGY**  
**FOR 4th COURSE STUDENTS**

**FIRST CATEGORY**

1. Acromegaly . Etiology, pathogenesis, clinical manifestations, diagnosis and treatment.
2. Cushing's Disease. Etiology, pathogenesis, clinical manifestations, diagnosis and treatment.
3. Diabetes insipidus. Etiology, pathogenesis, clinical manifestations, diagnosis and treatment.
4. Hypopituitarism in children. Differential diagnosis of growth retardation in children.
5. Treatment of endocrine -induced growth disorders in children.
6. Iodine deficiency conditions and diseases caused by lack of iodine.
7. Diffuse toxic goiter. Etiology, pathogenesis, clinical manifestations, diagnosis and treatment.
8. Hypothyroidism. Etiology, pathogenesis, classification, clinical picture, diagnosis and treatment.
9. Peculiarities of hypothyroidism, congenital hypothyroidism, hypothyroidism in the elderly, clinical course of atypical forms of hypothyroidism.
10. Acute thyroiditis. Etiology, clinical manifestations, differential diagnosis, treatment.
11. Chronic thyroiditis. The etiology, classification, diagnosis, treatment.
12. Cancer of the thyroid gland. Classification. The role of the Chernobyl accident in the occurrence of thyroid cancer.
13. Hyperparathyroidism. Etiology, pathogenesis, clinical manifestations, diagnosis and treatment.
14. Hypoparathyroidism . Etiology, clinical manifestations, diagnosis and treatment.
15. Diabetes. Determining the prevalence of the disease. Diagnosis of diabetes.
16. The etiology of diabetes. Classification of glucose disorders.
17. The clinical course of diabetes. Differences clinical course depending on type of diabetes.
18. Classification of chronic complications of diabetes. Prevention of chronic complications of diabetes.
19. Glycated Hemoglobin. Diagnostic value of glycated hemoglobin.
20. Indications for glucose tolerance test . Evaluation of the test.
21. Diet therapy of diabetes. The glycemic index of foods. The value of food glycemic in the development of chronic complications of diabetes.
22. Hypoglycemic sulfonamides. Classification of drugs. The mechanism of hypoglycemic sulfonamides impact .
23. Prescribe treatment with hypoglycemic sulfonamides. Side effect of medications. Features of hypoglycemic conditions caused by sulfonamides.
24. Biguanide . Prescribe for the treatment of diabetes. Indications and contraindications for use, adverse reactions of Biguanide.
25. Postprandial stimulators of insulin secretion. Classification. Methods of use.
26. Thiazolidinedione's in the treatment of diabetes. Indications, adverse reactions to drugs, the control treatment.
27. Indications for insulin therapy in patients with diabetes. Prescribe insulin therapy for patient newly diagnosed of diabetes. Mode of insulin therapy. Performance indicators insulin treatment.
28. Complications of insulin therapy. Hypoglycemic states .
29. Causes and urgent measures for hypoglycemia. Preventive measures for hypoglycemia .
30. Causes of decompensation of diabetes. Diabetic Ketonuria , ketoacidosis . Diagnosis and treatment.
31. Diabetic coma. Causes . Diagnosis and treatment.
32. Chronic adrenal insufficiency . Etiology , pathogenesis , clinical manifestations , diagnosis and treatment.
33. Cushing's Syndrome . Etiology , pathogenesis , clinical manifestations , diagnosis and treatment.
34. Pheochromocytoma. Etiology, clinical features, diagnosis and treatment.
35. Congenital adrenal hyperplasia. Clinical manifestations , diagnosis , treatment.
36. Cryptorchidism, etiology , pathogenesis , diagnosis and treatment.

37. Syndrome Turner. Clinical manifestations , diagnosis and treatment.
38. Klinefelter syndrome . Clinical manifestations , diagnosis and treatment.
39. Disorders of sexual development. Premature sexual development, delayed sexual development. Clinical manifestations , diagnosis and treatment.
40. Obesity . Definition , etiology , classification of obesity by body mass index. Treatment.
41. Obesity in children. Hypothalamic -pituitary obesity. Etiology . Clinical manifestations . Differential diagnosis . Treatment.

## **SECOND CATEGORY**

1. Different types of hormones and their place of establishment in the body.
2. Classification hormone chemical structure.
3. Basic functions of hormones, their genomic and epigenomic effects.
4. The synthesis of hormones and their secretion, transport in the blood and metabolism.
5. Mechanisms of action of hormones.
6. Regulation of endocrine function.
7. Basic mechanisms of endocrine diseases.
7. Anatomical and physiological data on the pituitary and hypothalamus.
8. Classification of hypothalamic- pituitary disease.
9. Hyperprolactinemia syndrome. Etiology, pathogenesis, clinical manifestations, diagnosis and treatment.
10. Hypopituitarism . Etiology, pathogenesis, clinical manifestations, diagnosis and treatment.
11. Anatomical and physiological data on the thyroid gland.
12. The concept of goiter. The reasons for the increase in thyroid size.
13. Laboratory and instrumental methods of examination of thyroid gland. Indications , contraindications for use, the diagnostic value of each method .
14. The methods of iodine prophylaxis .
15. The impact of man-made pollution of the environment on the development of thyroid cancer.
16. Nodules in the thyroid gland. Etiology . Clinic. Differential diagnosis .
17. Indications and contraindications for surgical treatment of thyroid cancer.
18. Differential diagnosis of hyperthyroidism syndrome.
19. Thyrotoxicosis crisis . Causes , clinical manifestations , diagnosis and treatment.
20. The definition and classification of thyroiditis .
21. Autoimmune thyroiditis. Classification , clinical course , diffusion. diagnosis and treatment.
22. The active detection of thyroid cancer , treatment, replacement therapy.
23. Anatomical and physiological characteristics of the parathyroid glands and their role in the regulation of calcium homeostasis.
24. Metabolic osteopathy in endocrine diseases. The etiology and pathogenesis , differential diagnosis , treatment and prevention.
25. Anatomical and physiological data on endocrine part of the pancreas.
26. The use of sweeteners in the diet of diabetics . Classification of sweeteners . The use of dietary fiber in the diets of patients with diabetes.
27. The physical load in patients with diabetes. Purpose graduated exercise based on blood glucose .
28. Hlyukomodulyatoriv use in the treatment of diabetes mellitus.
29. Use of herbal products in the treatment of diabetes mellitus.
30. Classification of oral hypoglycemic drugs.
31. Diabetes and pregnancy. Contraindications to pregnancy in patients with diabetes. Terms of diabetes in pregnancy.
32. Classification of insulin drugs, duration of action.
33. Coma in patients with diabetes. Hyperosmolar ( non-acidotic ) coma. Lactic acidosis and coma. Causes . Diagnosis . Urgent measures . Prevention.

34. Diabetic angiopathy of lower extremities. Stages of development , diagnosis, preventive measures for angiopathy.
35. Diabetic polyneuropathy. Manifestations of autonomic diabetic neuropathy.
36. Diabetic foot syndrome . Diffusion. diagnosis of neuropathic and ischemic foot lesions form .
37. Labour and medical- social examination of patients with diabetes.
38. The anatomic features of the adrenal glands, the adrenal hormones each layer .
39. The physiological action of adrenal hormones .
40. Acute adrenal insufficiency. Etiology, clinical manifestations, diagnosis and treatment.
41. Addison crises. Causes, clinical manifestations , diagnosis, emergency care.
42. Classification hormonal active tumors of the adrenal cortical layer .
43. The morphological structure of the endocrine testis and ovary. Physiological effects of sex hormones.
44. Classification of disorders of puberty.
45. Menopause. Pathological course of menopause. Clinical manifestations in women and men. Treatment of pathological manifestations of menopause.
46. The impact of obesity on the occurrence of lesions of the organs and systems of the human body .
47. Differential diagnosis of clinical forms of obesity.
48. The metabolic syndrome. Diagnosis . Treatment. '
49. Autoimmune Polyglandular Syndrome. Definition , clinical manifestations , diagnosis and treatment.
50. Multiple endocrine neoplasia syndrome, definitions, diagnosis, treatment.

### **THIRD CATEGORY**

1. Physiology of the pineal gland and its functional role in the human.
2. Classification and clinical manifestations of the pineal gland pathology.
3. Anatomy and physiological role of the thymus.
4. Immunological failure is caused by thymic hypoplasia.
5. Myasthenia gravis. The clinical manifestiation. Features of myasthenia gravis in children. Diagnosis and treatment of myasthenia gravis.
6. Tumors of the thymus. Clinical course . Diagnosis . Treatment.
7. Principles of the thyroid surgery.
8. Complications after thyroid surgery.
9. Indications for surgical treatment of nodular forms of goiter .
10. Surgical treatment of adrenal tumors, preoperative preparation, postoperative period, the rehabilitation of patients after adrenalectomy.

## **LIST of practical skills that should have STUDENT**

1. Assess glucose tolerance test.
2. Assess glyceemic and glycosuria profile.
3. Determine the type of diabetes, its clinical course and condition of compensation.
4. Determine blood glucose and acetone in the urine method. Determine blood glucose rapid method.
5. Prescribe dietary treatment of diabetes.
6. Prescribing of oral hypoglycemic agents.
7. Identify secondary sulfanilamide resistance and, to be able to treat it.
8. Rehabilitation of endocrine patients.
9. Assign mode of insulin therapy in diabetes.
10. Assign treatment of patients with ketoacidosis.
11. Assign scheme of treatment for diabetic coma.
12. Able to use syringe pen.
13. Develop a plan for self-management of diabetic patients.
14. Determine the degree of goiter.
15. Estimate data and Doppler ultrasonography of the thyroid gland.
16. Evaluate the results of radioisotope examination and thermography thyroid gland.
17. Assess the state of thyroid system according to radioimmunoassay and enzyme immunoassay tests.
18. Assign treatment of patients with toxic goiter.
19. Evaluate the results of ECG and reflex meter to characterize the function of the thyroid gland.
20. Diagnose hypothyroidism.
21. Assess the condition of the adrenal glands of the clinical data, the results of hormonal tests, ultrasound, arteriography, CT , MRI .
22. Prescribe treatment of Addison crisis.
23. Evaluate X-ray and data CT scan, MRI of the skull.
24. Determine the morphotype.
25. Determine the degree of obesity and BMI.
26. Determine the degree somatosexual development.
27. Define "bone age" according to radiography.
28. Estimate data chromosomal analysis.
29. Identify types of disorders of sexual differentiation.
30. Diagnose menopause treatment regimen and schedule pathological menopause.
31. Determine the extent of disability of patients with endocrine disorders.