

# TEST BANK



Subject:

Endocrine-  
FINAL 019

**Collected  
by**



Majdoleen Hamed

1-All the following are considered as mechanisms of action of the sulfonylureas except:

- a.Increase insulin receptor number and the affinity to insulin
- b.Induction of glucagon secretion by pancreas
- c.Inhibition of glucagon secretion by pancreas  $\alpha$  cells
- d.Ameliorating insulin resistance
- e.Direct stimulation of insulin release from the pancreatic B-cells

2-All the following are among the signs of Diabetes mellitus except:

- a.Feeling very thirsty
- b.Feeling very active
- c.Using the toilet often to urinate
- d.High level of glucose in urine and in fasting blood
- e.Constant hunger

3-Which of the following is False about Hyperaldosteronism?

- a.Secondary hyperaldosteronism can be caused by renal artery stenosis
- b.Secondary hyperaldosteronism is characterized by high renin
- c.The most common cause of primary hyperaldosteronism is adrenocortical adenoma
- d.The most common manifestation of hyperaldosteronism is hypertension
- e.Primary hyperaldosteronism can be familial

4-What must happen instantly in order to prevent overstimulation by a hormone?

- a.Hormones must be degraded and then resynthesized.

- b.G-proteins must be recycled and then degraded.
- c.Receptors must dimerize.
- d.Receptors must be blocked from continuing to activate G-proteins.
- e.New receptors must be synthesized to decrease the saturation effect of the hormone.

5-Which of the following is false about histology of pituitary adenomas?

- a.The atypical subtype is characterized by TP53 mutations
- b.The functional status can't be predicted from its histology
- c.Characterized by significant amount of reticulin network
- d.The atypical subtype is characterized by brisk mitoses
- e.Cellular monomorphism

6-Which of the following is False about thyroid nodules?

- a.Hot nodules are more likely to be benign
- b.Nodules in males are more likely to be neoplastic than are those in females
- c.Nodules in very young and elderly people are more likely to be non-neoplastic
- d.Solitary nodules are more likely to be neoplastic than are multiple nodules
- e.History of radiation exposure is associated with increased risk of thyroid malignancy

7-Which of the following is the most common cause of endogenous Cushing syndrome?

- a.ACTH -producing pituitary adenoma (Cushing disease)
- b.Primary nodular adrenocortical hyperplasia

- c.Primary diffuse adrenocortical hyperplasia
- d.Adrenocortical adenoma
- e.Adrenocortical carcinoma

8-Which of the following is False about Medullary thyroid carcinomas?

- a.Some familial cases are associated with MEN 1 syndrome
- b.Multicentricity is common in familial cases
- c.Are neuroendocrine tumors
- d.Sporadic cases affect adults
- e.They secrete calcitonin

9-The following hormones have permissive effects:

- a.Testosterone and estrogen
- b.Oxytocin and vasopressin
- c.Insulin and glucagon
- d.Epinephrine and serotonin
- e.Thyroxine and epinephrine

10-Regarding Lacotrophs, which is true:

- a.they are the Site of production of T4
- b.they are the Site of production of TRH
- c.they are the Site of production of prolactin
- d.they are the Site of production of growth hormone
- e.they are the Site of production of T3

11-Regarding Diabetes mellitus which is false?

- a.Type 1 Diabetes mellitus happen due to Lack of insulin
- b.Type 2 Diabetes mellitus happen due to Lack of insulin
- c.Diabetes mellitus is a syndrome of disordered metabolism
- d.Among Diabetes Signs; feeling Very thirsty
- e.Diabetes mellitus could happen due to hereditary and environmental causes

12-The most common cause of Addison disease is:

- a.Tuberculosis
- b.Fungal infection
- c.Metastatic carcinoma
- d.AIDS
- e.Autoimmune adrenalitis

13-Regarding the pharmacological actions of steroids, which is false?

- a.Glucocorticoids used to suppress inflammation
- b.Beclometasone is better used orally than topically
- c.Glucocorticoids used to suppress allergy
- d.Glucocorticoids used in cases of tissue transplantation and lymphopoiesis
- e.Glucocorticoids used in cases of eye and skin inflammations

14-Regarding the steps involved in Synthesis of thyroid hormones which is false?

- a.T<sub>4</sub> and T<sub>3</sub> are released into the circulation
- b.Newly formed Tg is transported to the cell surface in small apical vesicles

- c. T<sub>4</sub> and T<sub>3</sub> are released into the Golgi bodies
- d. Iodide is taken up at the basolateral cell membrane
- e. Polypeptide chains of Tg (thyroglobulin) are synthesized in the rough endoplasmic reticulum

**15-About the development of the suprarenal glands, choose the wrong statement:**

- a. Accessory tissue of the suprarenal gland may be found in gonads
- b. Its medulla originates from neural crest
- c. Its cortex has a mesodermal origin
- d. Some chromaffin cells migrate and invade the medulla of the suprarenal gland
- e. The acidophilic mesothelial cells will form the future glomerular and fascicular zones of the definitive cortex

**16-The most common cause of death in diabetic patients:**

- a. Chronic renal failure
- b. Hyperosmolar coma
- c. Myocardial infarction
- d. Diabetic ketoacidosis
- e. Disseminated infections

**17-The most common cause of hypothyroidism where iodine levels are sufficient is:**

- a. Reidel thyroiditis
- b. Sub-acute granulomatous thyroiditis
- c. Palpation thyroiditis

- d.Hashimoto thyroiditis
- e.Painless thyroiditis

18-Which of the following is not an adverse reaction of insulin?

- a.Hyperglycemia
- b.Lipodystrophy
- c.Insulin resistance
- d.Nausea, hungry, tachycardia
- e.Itching, redness, swelling, anaphylaxis shock

19-The blood supply of the suprarenal glands, choose the correct statement:

- a.The inferior suprarenal artery is a branch from the muscophrenic artery.
- b.The right and left suprarenal glands drain into the renal veins.
- c.The medulla has a single blood supply.
- d.The arterial and venous capillaries within the adrenal gland enable it to convert norepinephrine to epinephrine.
- e.The suprarenal gland receives the lowest blood supply in the body.

20-The most common cause of primary hyperparathyroidism is:

- a.Parathyroid carcinoma
- b.Nodular parathyroid hyperplasia
- c.Chronic renal failure
- d.Diffuse parathyroid hyperplasia
- e.Parathyroid adenoma

21-The suprarenal glands, choose the correct statement:

- a.The diaphragm lies posterior to both suprarenal glands.
- b.Found at the level of the 9th rib.
- c.The inferior vena cava lies anteriolaterally to the right suprarenal gland.
- d.They are located introperitoneally.
- e.Both glands reach the hilum of the kidney.

22-Regarding Thyrotrophs, which is true?

- a.they are the Site of TRH synthesis
- b.they are the Site of growth hormone synthesis
- c.they are the Site of T3 synthesis
- d.they are the Site of TSH synthesis
- e.they are the Site of prolactin synthesis

23-Which of the following is false about pituitary adenomas?

- a.Usually solitary (Single)
- b.The cutoff point in the size between microadenomas and macroadenomas is 1 cm
- c.Might be plurihormonal
- d.The most common type is somatotroph adenomas
- e.Might be non-secretory

24-Regarding thyroid gland, which is false?

- a.The thyroid gland secretes growth hormone
- b.The thyroid gland secretes thyroxine

- c. Every tissue in the body is affected in some way by thyroid hormones
- d. The thyroid gland secretes Calcitonin
- e. The thyroid gland secretes triiodothyronine

25-Regardless of how a signal is initiated, the ligand-binding event is propagated via second messengers or protein recruitment. What is the ultimate, or final biochemical outcome of these binding events?

- a. A protein at the bottom of an intracellular signaling pathway is activated.
- b. A protein at the top of an intracellular signaling pathway is activated.
- c. A protein at the top of an extracellular signaling pathway is activated.
- d. A protein in the middle of an intracellular signaling pathway is activated.
- e. A protein at the top of an intracellular signaling pathway is deactivated.

26-Regarding VITAMIN D3, which is false?

- a. Vitamin D3 inhibits intestinal calcium absorption
- b. Vitamin D3 plays an important role in maintaining calcium homeostasis
- c. Vitamin D3 Enhances intestinal calcium absorption
- d. Vitamin D3 enhances calcium reabsorption in the kidney
- e. Vitamin D3 active metabolite is named 1,25-(OH)<sub>2</sub>D<sub>3</sub>

27-Which of the following about pathogenesis of type 1 diabetes is false?

- a. It is an autoimmune disease
- b. Production of autoantibodies against insulin
- c. Characterized by extensive clonal deletion of self-reactive T lymphocytes
- d. Characterized by abnormalities in regulatory T lymphocytes
- e. Production of autoantibodies against enzyme glutamic acid decarboxylase

28-All of the following are signs and symptoms of pituitary adenomas or carcinoma except:

- a.Cranial nerve palsies
- b.Decrease intracranial pressure
- c.Pituitary apoplexy
- d.Sellar expansion
- e.Seizures

29-All of the following are features of Myxedema Except:

- a.Decreased sweating
- b.Mental sluggishness
- c.Diarrhea
- d.Pale skin
- e.Apathy

30-Regarding parathyroid glands, which is true:

- a.PTH is secreted in response to high glucose
- b.PTH is secreted in response of high T4
- c.PTH is secreted from the thyroid glands in response to a low plasma concentration of ionized (free) calcium
- d.PTH is secreted from the parathyroid glands in response to a high plasma concentration of ionized (free) calcium
- e.PTH increases rates of dietary calcium absorption

31-All the following are among the pharmacological actions of insulin except:

- a.Diminish hepatic glycogenolysis

- b. Inhibit lipolysis
- c. Induction of gluconeogenesis
- d. Inhibit hepatic gluconeogenesis
- e. Promote hepatic glucose storage into glycogen

32- This is the largest hormone in size:

- a. Angiotensin I
- b. Thyroxine
- c. Dihydrotestosterone
- d. Glucagon
- e. Vasopressin

33- What happens to protein kinase A (PKA) following the binding of cAMP?

- a. The regulatory subunits of PKA dissociate, thereby activating the catalytic subunits.
- b. The stimulatory regulatory subunits dissociate from the catalytic subunits, inhibiting the enzyme.
- c. PKA catalytic subunits then bind to two regulatory subunits, thereby activating the catalytic subunits.
- d. Phosphodiesterase binds to the catalytic subunits, which results in enzyme inactivation.
- e. The inhibitory regulatory subunits dissociate from the catalytic subunits, completely inactivating the enzyme.

34-autocrine signaling (choose the best answer that describes it):

- a. Messenger molecules travel only short distances through the extracellular space to different cell types that are in close proximity to the cell that is generating the message.
- b. The cell producing the messenger expresses receptors on its surface that can respond to that messenger.
- c. Messenger molecules reach their target cells via passage through bloodstream.
- d. The messenger molecules are usually rapidly degraded and hence can only work over short distances.
- e. No answer describes it well.

35-Where is the kinase catalytic domain of the receptor protein-tyrosine kinases found?

- A. On the extracellular surface of the receptor, immediately adjacent to the ligand-binding domain.
- B. On the cytoplasmic domain of the receptor.
- C. On an independent protein that rapidly binds the receptor upon ligand binding.
- D. Within the transmembrane spanning portion of the receptor.
- E. On the DNA binding domain

36-Which of the following is false about Graves' disease?

- a. The serum levels of TSH binding inhibitor immunoglobulins might be high in some cases
- b. Characterized by infiltrative ophthalmopathy disappears after treatment of thyrotoxicosis
- c. Low TSH
- d. Characterized by thyrotoxicosis in all cases
- e. Characterized by diffuse iodine uptake

37-All the following are among the Chronic complications of Diabetes mellitus except:

- a. Strokes
- b. Coronary heart disease
- c. Renal failure
- d. Diabetic ketoacidosis
- e. Poor wound healing

38-Which of the following statements is False?

- a. One cause of secondary diffuse hyperplasia in adrenal glands is Cushing disease
- b. After exogenous administration of cortisol, the adrenal glands show bilateral diffuse hyperplasia
- c. Cushing disease is ACTH dependent cause of Cushing syndrome
- d. Primary adrenal hyperplasia may show micronodules or macronodules
- e. Primary adrenal hyperplasia is ACTH independent cause of Cushing syndrome

39-Typically, what is the first reaction after most receptor protein tyrosine kinases bind their ligand?

- a. Receptor denaturation
- b. Receptor degradation
- c. Receptor dimerization
- d. Receptor dissociation
- e. Receptor trimerization

40-which of the following does not cause hyperprolactinemia?

- a. Pregnancy
- b. High dose estrogen therapy
- c. Reserpine
- d. Dopamine
- e. Stalk effect

41-Choose the wrong statement about Zona Fasciculata:

- a. Its cells are typical steroid synthesizing cells.
- b. Its cells cytoplasm contains lipid droplets.
- c. Its cells are arranged in circles.
- d. It is the thickest middle zone that forms around 80% of the cortex.
- e. Its cells secrete glucocorticoids, mainly cortisol.

42-Which of the following sentences is true?

- a. Insufficiency of thyroid hormones result in Primary hyperthyroidism
- b. Cretinism is a condition of stunted mental growth due to untreated congenital deficiency of thyroid hormones
- C. Myxedema is a term used with severe hyperthyroidism
- d. Thionamides are the primary drugs used to increase thyroid hormone production
- e. Cretinism is a condition of stunted mental growth due to untreated congenital increase of thyroid hormones

43-Which of the following are not gonadotropins?

- a. Follicle-stimulating hormone (FSH)

- b. Human chorionic gonadotropin(hCG)
- c. Growth hormone
- d. Luteinizing hormone (LH)
- e. TSH

44-Which of the following is False about thyroid follicular carcinomas?

- a. Is more frequent in iodine deficient regions
- b. More common in women
- c. Tend to metastasize through lymphatics
- d. Are composed of small follicles
- e. Might be widely invasive or minimally invasive

45-Sheehan syndrome is a complication of the following pituitary adenoma:

- a. ACTH secreting adenoma
- b. TSH secreting adenoma
- c. LH secreting adenoma
- d. Prolactinoma
- e. Somatotroph cell adenoma

46-Which of the following statements is false?

- a. Blood glucose levels equal or more than 200 mg/dl on oral glucose tolerance test means diabetes
- b. Fasting blood sugar of 126 mg/dl or more means diabetes
- c. Random blood sugar equals or more than 200 mg/dl means diabetes
- d. Glycated HBA1C in diabetes is between 5.7 and 6.4

e. The normal blood sugar is maintained between 70 to 120 mg /dl

47-Which of the following is False about obesity and insulin resistance?

- a. Increase in intracellular triglycerides inhibits insulin signaling and mediate insulin resistance
- b. Increased adiponectin mediates insulin resistance
- c. Inflammation with increases in IL-1B mediates insulin resistance
- d. Inflammation with cytokine production increases insulin resistance
- e. Excess free fatty acids are important in insulin resistance

48-The anterior pituitary gland is connected to the hypothalamus by:

- a.hypothalamoanterior connective tissue
- b.skeletal muscle
- c.pituitary fat tissue
- d.hypothalamoanterior nerves
- e.hypothalamoanterior pituitary portal vessels

49-The inferior parathyroid glands, choose the wrong statement:

- a.They contain chief and oxyphil cells.
- b.Most of their blood supply comes from branches of inferior thyroid artery.
- c.The inferior parathyroid glands occasionally migrate to the level of the aortic arch.
- d.They are usually ventral to the nerve that accompanies the inferior thyroid artery.
- e.They are derived from the dorsal wing of the fourth pharyngeal pouch.

50-The type of thyroiditis that might occur in postpartum period is:

- a.painless thyroiditis
- b.sub-acute granulomatous thyroiditis
- c.hashimoto thyroiditis
- d.riedlle thyroiditis
- e.palpation thyroiditis

### ANSWERS

1-B	11-B	21-A	31-C	41-C
2-B	12-E	22-D	32-D	42-B
3-C	13-B	23-D	33-A	43-C
4-D	14-C	24-A	34-B	44-C
5-C	15-E	25-A	35-B	45-D
6-C	16-C	26-A	36-B	46-D
7-A	17-D	27-C	37-D	47-B
8-A	18-A	28-B	38-B	48-E
9-E	19-D	29-C	39-C	49-E
10-C	20-E	30-E	40-D	50-A

## PRACTICAL PART

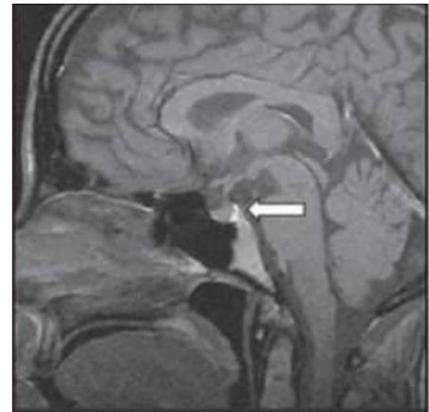
1-The pointed structures are:

- a. splenic arteries
- b. Renal arteries
- c. Pancreases
- d. kidneys
- e. Suprarenal glands



2-The indicated spot is absent in individuals with?

- a. Sheehan syndrome
- b. Craniopharyngioma
- c. Bitemporal hemianopsia
- d. Central diabetes insipidus
- e. pituitary Adenoma of the anterior lobe



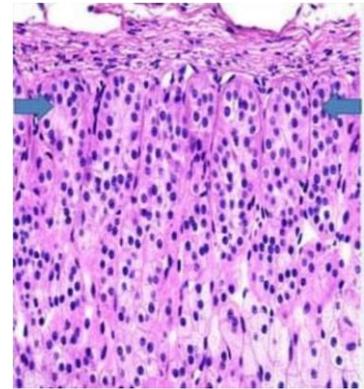
3-The pointed area contains:

- a. Pituitary gland
- b. Cavernous sinus
- c. Pineal gland
- d. Sphenoidal air sinus
- e. Optic chiasma



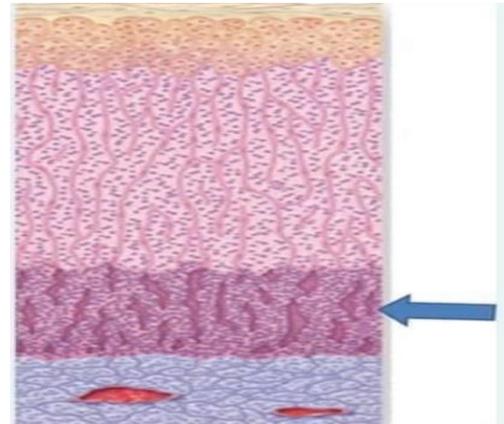
4-The area between the pointed arrows produces:

- a. Cortisol
- b. Parathormone
- c. Melatonin
- d. Androgen
- e. aldosterone



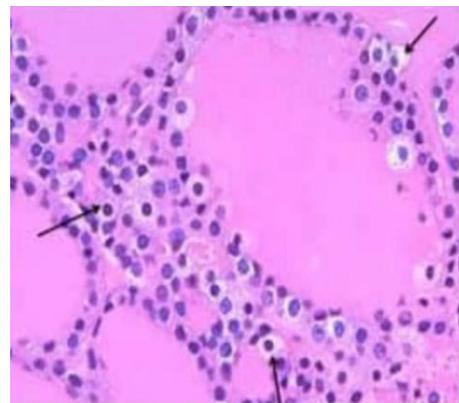
5-The pointed area produces:

- a. Cortisol
- b. Androgen
- c. Aldosterone
- d. Epinephrine
- e. Norepinephrine



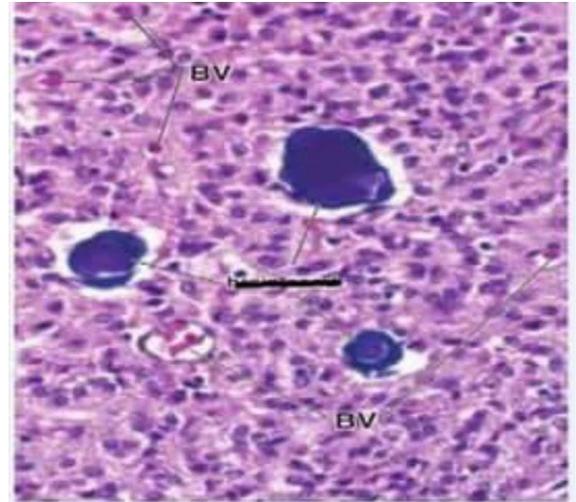
6-The pointed cells produce:

- a. Calcitonin
- b. Parathyroid hormone
- c. Thyrotropin
- d. Thyroxine
- e. Growth hormone



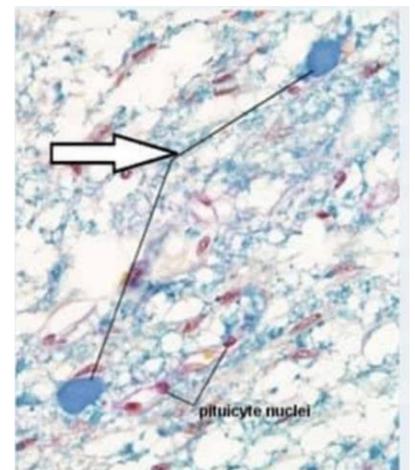
7-This section is taken from:

- a. Parathyroid gland
- b. Pineal gland
- c. Thyroid gland
- d. Pituitary gland
- e. Suprarenal gland



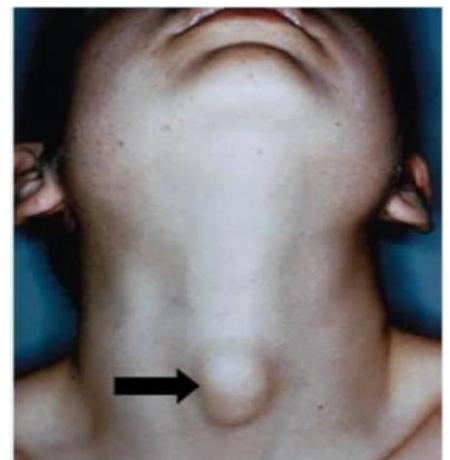
8-The pointed structures contain:

- a. FSH and LH
- b. Growth hormone
- c. Prolactin
- d. ADH and oxytocin
- e. Melatonin



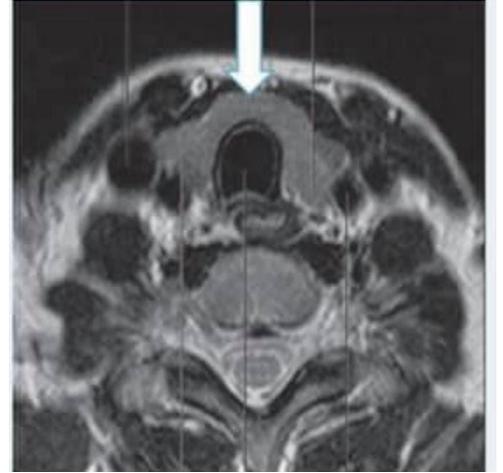
9-The pointed structure could be:

- a. Aberrant thyroid tissue
- b. Thyroglossal cyst
- c. Branchial fistula
- d. Lingual thyroid gland
- e. Parathyroid sinus



10-On this MRI, the pointed structure is:

- a. Left thyroid lobe
- b. Isthmus of thyroid gland
- c. Esophagus
- d. Right thyroid lobe
- e. Trachea



### ANSWERS

1-E	2-D	3-A	4-D	5-B
6-A	7-B	8-D	9-B	10-B

اللهم لك الحمد من أعماق الفؤاد حتى عرشك المقدس