

## Endocrine System

-Final Exam-

Coordinator: Dr. Fatimah Almahasneh

Collected by: GLORIANS TEAM

Batch: Glory - 2017

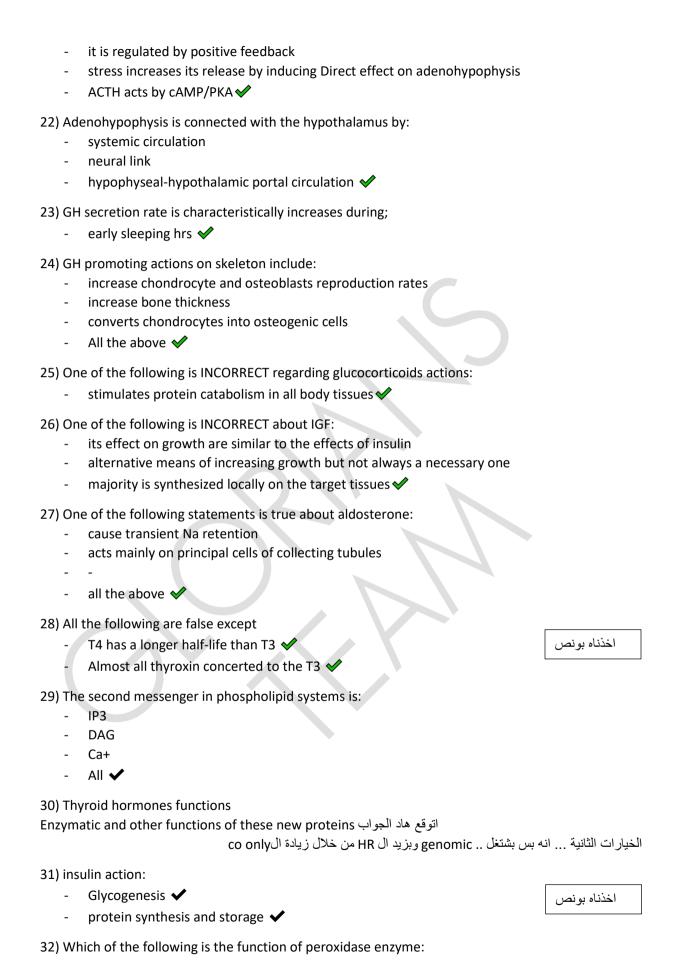
#### Anatomy - Histology - Embryology Dr. Ramada

1) All of the following is secreted by anterior pituitary except:  - ADH	L	r. Kamada
- Pineal gland is part of endocrine - Glands secrete chemical substances - hormones are secreted by blood - Has fast onset of action  3) All of the following are from thyroid lymph vessels except: - Paralaryngeal  4) Cells secrete insulin: - B cells  - B cells  - Migration down to the neck  5) Which of these actions occur in thyroid gland between 5-6 week of fetal life: - Migration of zona reticularis occur in: - 1 year after birth - 2 year after birth - 3 year after birth - 3 year after birth  - Tetal cortex  7) Thymus overlies which of the followings: - Pericardium - Aorta - Trachea - Two answers are correct - All answers are correct - All answers are correct - larger than chief cells - less numerous than chief cells - Present In cluster - Have very acidophilic cytoplasm	<u> </u>	r pituitary except:
- Paralaryngeal ✓ 4) Cells secrete insulin: - B cells ✓ 5) Which of these actions occur in thyroid gland between 5-6 week of fetal life: - Migration down to the neck ✓ 6) Formation of zona reticularis occur in: - 1 year after birth - 2 year after birth - 3 year after birth ✓ - Fetal cortex 7) Thymus overlies which of the followings: - Pericardium - Aorta - Trachea - Two answers are correct - All answers are correct - All answers are true about oxiphil cells except: - larger than chief cells - less numerous than chief cells - Present In cluster - Have very acidophilic cytoplasm	Pineal gland is part of endocrine Glands secrete chemical substance hormones are secreted by blood	
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<ul> <li>larger than chief cells</li> <li>less numerous than chief cells</li> <li>Present In cluster</li> <li>Have very acidophilic cytoplasm</li> </ul>	Pericardium Aorta Trachea Two answers are correct	
- Has granules contain PTH 🗹	larger than chief cells less numerous than chief cells Present In cluster	cells except:
Physiology Dr. Fatimah Almahasneh		
9) MOA of 1,25- dihydrocholecalciderol:  - Stimulate the expression of a number of gene products		er of gene products 🗸

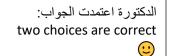
10) PTH can be stimulated by:

- Increased plasma phosphate level  ${\color{red} \checkmark}$ 

- Acid protease break down hydroxyapatite 🗹	اخذناه بونص
- proton pump merge to sealing zone. 🗹	
12) Magnocellular neurons:	
- Neurosecretory cells produce the neurohypophysis hormones in the	hypothalamus 🔽
13) Oxytocin hormone:	
- milk production	
- myoepithelial cells contraction in mammary glands	
- express milk into the ducts	
- c + b ✓	
14) GH fails to promote growth in animals that:	
- have severe hepatic problems	
- lack pancreas	
<ul> <li>depend on fats and proteins as a source of energy</li> <li>b + c ✓</li> </ul>	
_	
15) One of the following enzymes is inactivated by insulin:	
- liver phosphorylase 🗸	
16) One of the following is true about Ca homeostasis:	
<ul> <li>vit D increases intestinal ca absorption</li> </ul>	
- calcitonin increases bone resorption	
- PTH enhances bone resorption and induce ca mobilization	
- two choices are true ✓	
17) One of the following conditions stimulate PTH release:	
- high serum ca levels	
- Mg deficiency	
<ul><li>vit D</li><li>high plasma phosphate</li></ul>	
18) Stretch receptors:	
- enhances ADH release	
- also called baroreceptors	
<ul> <li>in carotid and pulmonary arteries</li> <li>excited by overfilling </li> </ul>	
· · · · · · · · · · · · · · · · · · ·	
19) ADH:	
- requires 30_60 min to reach its full action	
<ul> <li>marked alteration of renal solutes excretion</li> <li>low concentrations induce vasoconstriction</li> </ul>	
<ul> <li>provide temporary pores in the renal epithelial cells allowing water</li> </ul>	reabsorption 🗸
<ul> <li>20) In Normal individuals Cortisol does not induce significant mineralocortic</li> <li>low serum levels</li> </ul>	oid effect because
<ul> <li>is converted into cortisone by renal epithelial cells </li> </ul>	
.5 55.17 c. tea into cortisone by remai epithenal cens [-]	



- oxidation of <u>iodine</u>
- organification
- two choices are correct ✓



#### Pathology Dr. Doga

33) Hashimoto's thyroiditis:	
Autoimmune destruction 🗸	

- 34) Neuroblastoma mutation:
  - N-myc 🗸
  - C-myc
  - S-RAS
  - BTEN
- 35) Hypothyroid patient, iodide deficiency:
  - DecreaseT4, increase TSH ✓
- 36) What is wrong about adrenal CA:
  - Localized invasion
  - Functioning or not functioning
  - Large size
  - Yellowish in color
- 37) Diagnosis depend on Vascular or Capsular invasions:
  - Follicular CA
  - Papillary CA
  - Medullary CA
  - Anaplastic CA
- 38) Secondary Parathyroid gland hyperplasia due:
  - Low Ca++ serum
- 39) Intractable peptic ulcer with gastrin hyper secretion:
  - Zollinger-Ellison syndrome
- 40) Diabetes insidious is not:
  - related to damage in anterior pituitary 🗸
  - related to ADH deficiency
- 41) Metastatic calcification (as a result of hyperparathyroidism) in all of the following, except:
  - Stomach
  - Floor of mouth
  - Lung
  - Systemic arteries
- 42) Galactorrhea is due to:
  - Prolactinoma

- 43) The wrong statement about gigantism:
- Growth hormone secreting adenoma in children and adults
- 44) something about stalk effect, which hormone responsible...
  - prolactin ✓
- 45) Chronic adrenal insufficiency result from all except:
  - Primary tumor
  - simple atrophy
  - TB
  - Metastatic tumor
- 46) Case about women who was taking CS, what we will find?
  - Atrophy of adrenal cortex
- 47) Intracellular hyperglycemia induces VEGF that result in:
  - New B.V formation
  - anticoagulant activity
  - decrease permeability
  - decrease fibrosis
- 48) Result of hyperaldosteronism:
  - Hyperkalemia
  - Hypotension
  - hyperglycemia
  - Hypokalemia ✓
- 49) Malignancy in pheochromocytoma confirmed by:
  - Metastasis 🗹
- 50) Right about Crooks hyaline change:
  - Accumulation of intermediate keratin filaments
  - Dark granular basophilic
  - Cushing Syndrome related
- 51) Common cause for Type 2 diabetes:
  - Overweight 🗸
- 52) Diagnosis depend on nuclear features:
  - papillary CA 🗹
- 53) Hand schüller Christian disease:
  - Systemic langhans cell histocytosis

### Pharmacology

Dr. Romany

- 54) Which ONE of the following drug/therapeutic indications pairs is mismatched?
  - Triamcinolone skin allergies
  - Metformin obese NIDDM
  - Rosiglitazone Diabetic with heart failure
  - Eplerenone Hypertension

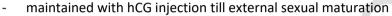
بعد مناقشة الدكتورة بخصوص سؤال 45 هيك كان ردها: Atrophy leads to hypofunction and Autoimmune disorders leads to atrophy of the gland. But primary tumors of suprarenal adenoma or carcinoma and these associated with hyperfunction Atrophy not occur sudden on short time but on long time.

Crooks hyaline change is a type of negative feedback on ACTH secreting cells of pituitary it is decrease in basophilic secretory granules and cytoplasm contain keratin instead it is a type of hyaline change. It is a type of cell degeneration Cushing disease is a reverse there is proliferation and increased function of ACTH secreting cells forming adenoma no crooks hyaline cells

Propranolol – thyroid storm
55) Pegvisomant is approved for the treatment of which of the followings?
Diabetes insipidus
Nocturnal enuresis
Prader-Willi syndrome
VIPomas
Acromegaly

56) In an Infertile male with hypogonadism lacking gonadotropins due to a pituitary disorders, The following is an appropriate therapy

- Injection of menotropin till external sexual maturation with subsequent injection of hCG -hCG injection till external sexual maturation with subsequent injection of hMG or follitropin
- -hCG injection till external sexual maturation with subsequent injection of hMG or follitropin



- maintained with menotropin injection till external sexual maturation
- maintained with follitropin till external sexual maturation

57) A patient suffering from thyroid storm is treated with a drug that inhibits both thyroid gland peroxidase, and the peripheral deiodination of T4 to T3. Which one of the followings is that drug?

- Methimazole
- Potassium iodide
- Propylthiouracil
- Radioactive iodine
- propranolol

58) The most reliable guide to adjustment of thyroxine dose in a patient of hypothyroidism is

- Pulse rate
- Body weight
- Serum T4 level
- Serum T3 level
- Serum TSH level

59) ONE of the followings is WRONG with regard to drugs/hormones affecting calcium homeostasis

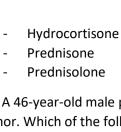
- The primary action of parathormone is to increase resorption of calcium from bone
- The most suitable vitamin D preparation for treatment of rickets is calcipotriol
- Calcitonin is used in treatment of hypercalcemia by increasing renal calcium excretion
- In low and intermittent doses, PTH increase bone formation
- Calcitriol is used to manage the hypocalcemia accompanying chronic renal disease

60) Which <u>ONE</u> of the following antidiabetics inhibits intestinal brush border alpha glucosidase enzymes thus inhibits postprandial hyperglycemia?

- Pramlintide
- Acarbose
- Liraglutide
- Vildagliptin
- repaglinide

61) among the following steroids, which ONE has the highest anti-inflammatory activity?

- Betamethasone
- Fludrocortisone



62) A 46-year-old male patient has Cushing's syndrome that is due to the presence of an adrenal tumor. Which of the following drugs would be expected to reduce the signs and symptoms of this patient's disease?

- Betamethasone
- Fludrocortisone
- Fluticasone
- Ketoconazole 🗸
- triamcinolone

63) For patients who have been on long-term therapy with glucocorticoid and who now wish to discontinue the drug, gradual tapering of the glucocorticoid is needed to allow recovery of

- Depressed release of insulin from pancreatic Beta islets
- Hematopoiesis in the bone marrow
- Normal osteoblast function
- The control by vasopressin of water excretion
- The hypothalamic-pituitary-adrenal system 🗸

64) Which of the following oral antidiabetic agents would be unlikely to raise insulin concentrations in type 2 diabetic patients?

- Sulfonylureas
- Meglitinides
- Gliptins (DPP-4 inhibitors)
- Metformin and Glitazones
- None of the given options

65) Which of the following oral antidiabetic agents are often associated with weight gain in type 2 diabetic patients

- Metformin
- a-Glucosidase inhibitors
- Gliptins (DPP-4 inhibitors)
- Sulfonylureas and Glitazones 🗹
- All of the given options

66) ONE of the followings is an inhaled steroid used in treatment of bronchial asthma

- Prednisone
- Fludrocortisone
- Beclomethasone 🗸
- Dexamethasone
- cortisone

67) Toxicity of which ONE of the followings is most likely similar to that of glucocorticoids?

- Nafarelin
- Octreotide
- Urofollitropin
- Cosyntropin
- Cabergoline

68) A young married couple has been unable to conceive after 3 years of unprotected intercourse.  The husband's sperm count is normal. They both agree they would like the wife to undergo fertility treatment. Which of the following drugs has the ability to either stimulate or inhibit ovulation depending only on the dosing schedule?  - Bromocriptine - Chronic gonadotropin (hCG) - Leuprolide ✓ - Desmopressin - corticotropin
<ul> <li>69) which of the following best describes the effect of propyl thiouracil on thyroid hormone production: <ul> <li>It inhibits uptake of iodide by thyroid cells</li> <li>It blocks the release of thyrotropin releasing hormone</li> <li>It prevents the release of thyroid hormone from thyroglobulin</li> <li>It blocks iodination of and coupling of tyrosine in thyroglobulin to form thyroid hormone</li> <li>It blocks the release of hormones from the thyroid gland</li> </ul> </li> </ul>
70) Which of the following conditions is an indication for the use of calcitonin?  - Hypocalcemia - Hypoparathyroidism - Chronic renal failure - Stunted growth in children - Paget's disease of bone ✓
<ul> <li>71) Sulfonylureas are a primary mode of therapy in the treatment of</li> <li>Insulin-dependent (type 1) diabetes mellitus (IDDM) patients</li> <li>Diabetic patients experiencing severe hepatic or renal dysfunction</li> <li>Diabetic pregnant women</li> <li>Patient with diabetic ketoacidosis</li> <li>Non-insulin-dependent (type 2) DM patients</li> </ul>
Biochemistry Dr. Zaid
72) Steroid hormones have Half life while peptide and protein hormone have half life - long, short ✓
73) The enzyme that is responsible about dopamine conversion into NE is: - beta dopamine hydroxylase ✓
<ul><li>74) Except in starvation conditions, is the primary source of energy in the brain:</li><li>Glucose ✓</li></ul>
<ul> <li>75) 11 hydroxylase enzyme converts 11-deoxycortisol and 11-deoxycorticosterone to:</li> <li>Cortisol, corticosterone ✓</li> </ul>
76) Which of the following use two different Abs: - I Direct ELISA

II competitive

- III & II 🗸	
77) Which of the following act by Jak pathway:	
- GH	
- interferon	
-	
- all the above 🗸	
78) Regarding steroid hormones, one of the following statemen	nts is true:
- protein receptors, in the cytoplasm 🗸	
79) The main androgens precursors in testis is	
- DHEA ✓	
80) The main mechanism for testicular testosterone synthesis i	is:
- DHT	
- DHEA pathway = delta 5pathway	
81) One of the following dose not act by cAMP	
- NO (nitric oxide)	
82) Question about phosphodiesterase	
- Breaks down phosphodiesterase bond	
- converts cAMP to 5'AMP 🗸 (عالأغلب)	
<ul> <li>converts inactive PKA C2R2 into its active form</li> </ul>	
- two choices are true	
- None of the above	
83) Insulin has an AB heterodimeric structure with one intracha	ain (A6–A11) and two interchain
disulfide bridges (A7–B7) and (A20–B19) trypsin-like, How man	ny disulfide bonds? 🙂 🛭
- 0	هل الدكتور طالب نوع الرابطة (يعني الجواب 1)
- 1	لا كم عدد الروابط (يعني نجمعهن والجواب 3)
- 2	لسؤال مش واضح ابدًا، يعني بنعرف نجمع
- 3 🗸	عفكرة فالمفروض يسال عن نوع الرابطة
Public health	عالأغلب الجواب المعتمد 3 والله اعلم 🚨
Dr. Moawiah Khata	tbeh
= 1, 1, 15 5, 1, 15, 17 (115) 5	
84) One of the following statements is INCORRECT:  - dying rate in Jordan as a result of 4NCDs us 10%	

half of DM ptns live in urban countries

MeS increases the risk of communicable diseases

Obesity prevalence among school children in Jordan is 17%

86) One of the following is INCORRECT:

87) One of the following is INCORRECT:

88) ABCDE represents the means of MeS management, D represents drug therapy

- True
- False 🗸

Sorry for any mistake

Good luck 💙



# GLORIANS TEAM

