

## Memory Test - Endocrine Physiology\_Class Test\_Online\_Foundation\_1

Total Mark: 100

Time: 90 Min

<p><b>1. Effects of growth hormone on metabolism include-</b></p> <p>A) Stimulates synthesis of protein, DNA &amp; RNA</p> <p>B) Decreased hepatic glucose output</p> <p>C) Decreased glucose utilization inside the cells</p> <p>D) Increased FFA oxidation in liver</p> <p>E) Decreased FFA mobilization from</p> <p><b>Answer:</b> T, F, T, T, F</p> <p><b>Discussion:</b></p> <p><b>Reference:</b></p>	<p><b>2. Factors that simulate growth hormone secretion-</b></p> <p>A) Decreased blood glucose</p> <p>B) Decreased free fatty acid</p> <p>C) Increased blood glucose</p> <p>D) Testosterone</p> <p>E) Somatostatin</p> <p><b>Answer:</b> T, T, F, T, F</p> <p><b>Discussion:</b></p> <p><b>Reference:</b></p>
<p><b>3. Following are functions of thyroid hormone-</b></p> <p>A) Increase oxygen consumption</p> <p>B) Decrease protein synthesis</p> <p>C) Increase growth</p> <p>D) Decrease metabolism of carbohydrate</p> <p>E) Affects neurodevelopment</p> <p><b>Answer:</b> T, F, T, F, T</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> [Ref: Ganong physiology/25th/P-346]</p>	<p><b>4. Hormone-sensitive lipase is activated by</b></p> <p>A) TSH</p> <p>B) ACTH</p> <p>C) Nicotinic acid</p> <p>D) Prostaglandin E1</p> <p>E) Vasopressin</p> <p><b>Answer:</b> T, T, F, F, T</p> <p><b>Discussion:</b></p> <p><b>Reference:</b></p>
<p><b>5. Insulin increases glucose uptake in following tissues</b></p> <p>A) Skeletal muscles</p> <p>B) Renal tubules</p> <p>C) Adipose tissue</p> <p>D) Intestinal mucosa</p> <p>E) Red blood cell</p> <p><b>Answer:</b> T, F, T, F, F</p> <p><b>Discussion:</b> Explanation: Tissues in which insulin facilitates glucose uptake: <input type="checkbox"/> Muscles: Skeletal, cardiac &amp; smooth muscle tissues. <input type="checkbox"/> Adipose tissues. <input type="checkbox"/> Leucocytes. <input type="checkbox"/> Crystalline lens of the eye. <input type="checkbox"/> Fibroblasts. <input type="checkbox"/> Mammary gland <input type="checkbox"/> Aorta. <input type="checkbox"/> <math>\beta</math>-cells of pancreatic islets.</p> <p><b>Reference:</b> [ Ref : Ganong 25th P-432]</p>	<p><b>6. Parathyroid hormone directly controls the rate of</b></p> <p>A) Calcium transport in the mucosa of the small intestine</p> <p>B) 25-hydroxycholecalciferol formation</p> <p>C) Formation of calcium binding protein</p> <p>D) Formation of 1, 25-dihydroxycholecalciferol</p> <p>E) Renal tubular calcium ion reabsorption</p> <p><b>Answer:</b> F, F, F, T, T</p> <p><b>Discussion:</b> Exp: a) Indirectly, b) 1,25-dihydroxycholecalciferol formation, c) Indirectly.</p> <p><b>Reference:</b> (Ref: Ganong 25th/P-380)</p>

<p><b>7. Regarding calcium metabolism –</b>  A) PTH increase <math>\text{Ca}^{++}</math> &amp; <math>\text{PO}_4</math> re-absorption from PCT  B) Calcitriol increases <math>\text{Ca}^{++}</math> &amp; <math>\text{PO}_4</math> absorption from intestine  C) Calcitonin decrease renal excretion of <math>\text{Ca}^{++}</math> &amp; <math>\text{PO}_4</math>  D) PTH decrease GIT calcium absorption  E) Thyrocalcitonin inhibits bone resorption  <b>Answer:</b> F, T, F, F, T  <b>Discussion:</b> Exp: a) <math>\square</math> Phosphate excretion from PCT, c) <math>\square</math> Excretion, d) <math>\square</math> Absorption.  <b>Reference:</b> [Ref: Ganong 25th/P-380]</p>	<p><b>8. Steroid hormones are</b>  A) Cortisol  B) Aldosterone  C) Cholesterol  D) Bile acid  E) Testosterone  <b>Answer:</b> T, T, F, F, T  <b>Discussion:</b>  <b>Reference:</b> (Ref: Gyton 13th , Page-927)</p>
<p><b>9. 1,25-dihydroxycholecalciferol is made-</b>  A) Proximal tubule of kidney  B) Placenta  C) Keratinocyte  D) Macrophage  E) Lymphocyte  <b>Answer:</b> T, T, T, T, F  <b>Discussion:</b>  <b>Reference:</b> [Ref: Ganong 25th/P-377,378]</p>	<p><b>10. ADH Secretion is increase by-</b>  A) Hyperglycemia  B) Pain  C) Hypertension [hypotension]  D) Angiotensin II  E) Hypothyroidism  <b>Answer:</b> T, T, F, T, T  <b>Discussion:</b> (Exp: c) Hypotension  <b>Reference:</b> [Ref: Guyton 13th/P-949]</p>
<p><b>11. Blood glucose level is increased by</b>  A) Glucagon  B) Aldosterone  C) Catecholamine  D) Cortisol  E) Parathyroid hormone  <b>Answer:</b> T, F, T, T, F  <b>Discussion:</b> Exp: b) Aldosterone reabsorb <math>\text{Na}^+</math> &amp; Excrete <math>\text{K}^+</math> &amp; <math>\text{H}^+</math>, e) PTH maintain <math>\text{Ca}^{++}</math> Homeostasis.  <b>Reference:</b> [Ref: Ganong 25th/P-445-446]</p>	<p><b>12. Calcitonin</b>  A) Increases circulating calcium level  B) Lowers circulating phosphate level  C) Inhibit bone resorption  D) Inhibits the activity of osteoclasts  E) Decreases <math>\text{Ca}^{2+}</math> excretion  <b>Answer:</b> F, T, T, T, F  <b>Discussion:</b> Exp: a) <math>\square</math> <math>\text{Ca}^{2+}</math>, e) <math>\square</math> Excretion.  <b>Reference:</b> (Ref: Guyton 13th/P-1010-1011)</p>
<p><b>13. Cardiovascular effects of thyroid hormones include-</b>  A) Negative Chronotropic  B) Negative ionotropic  C) <math>\square</math> mean arterial pressure  D) <math>\square</math> Diastolic blood pressure  E) <math>\square</math> Systolic blood pressure  <b>Answer:</b> F, F, F, T, F  <b>Discussion:</b> Exp: a+b=Positive chronotropic+Ionotropic, c) Mean pressure normal  e) <math>\square</math> Systolic blood pressure.  <b>Reference:</b> [Ref: Guyton 13th 956,957]</p>	<p><b>14. Decrease growth hormone in childhood causes</b>  A) Delayed puberty  B) Growth retardation  C) Diabetes mellitus  D) Obesity  E) Normal mental development  <b>Answer:</b> T, T, F, T, F  <b>Discussion:</b> a. Laron dwarfism due to end organ unresponsiveness to GH b. Frohlich's dwarfism c. In hyper secretion of GH d. Trunkal obesity due to decrease GH other hormone i.e TH e. Mentally subnormal  <b>Reference:</b> [Ref: Ganong 25th/P-330]</p>

<p><b>15. Exocrine gland have no Pituitary control?</b></p> <p>A) Thyroid B) Parathyroid C) Pancrease D) Placenta E) Ovary</p> <p><b>Answer:</b> F, T, T, T, F <b>Discussion:</b> Exp: Q.Endocrine gland have no pituitary control- a)TSH-Thyroid hormones, e)FSH+LH=oestrogen+progesterone secretions <b>Reference:</b> (Ref:Guyton 13th/P-942)</p>	<p><b>16. Hormones acts via phospholipase C</b></p> <p>A) Oxytocin B) Calcitonin C) LH D) TRH E) Vesopressin</p> <p><b>Answer:</b> T, F, F, T, T <b>Discussion:</b> Exp: b+c=cAMP <b>Reference:</b> [Ref: Guyton 13th/P-934]</p>
<p><b>17. Hormones involved in the maintenance of plasma osmolality</b></p> <p>A) ADH B) PTH C) Mineralocorticoids D) Insulin E) Atrial natriuretic peptide</p> <p><b>Answer:</b> T, F, T, F, T <b>Discussion:</b> Exp: b+d= Not related with plasma osmolality <b>Reference:</b> [Ref:Vision 9th]</p>	<p><b>18. Insulin secretion is inhibited by -</b></p> <p>A) Somatostatin B) Glucose C) Diazoxide D) Glucagone E) Insulin</p> <p><b>Answer:</b> T, F, T, F, T <b>Discussion:</b> Exp: b+d=Stimulate Insulin Secretions <b>Reference:</b> [Ref: Guyton 13th/P-990]</p>
<p><b>19. Permissive action of gluco corticoids</b></p> <p>A) Lipolysis B) Lipogenesis C) Vasoconstriction D) Bronchodilation E) Bronchoconstriction</p> <p><b>Answer:</b> T, F, T, T, F <b>Discussion:</b> Exp: b) Lipolysis, e) Bronchodilation <b>Reference:</b> [Ref: Ganong 25th/P-363]</p>	<p><b>20. Primary adrenocortical insufficiency produces</b></p> <p>A) Hypoglycemia B) Hypotension C) Hypokalemia D) Metabolic acidosis E) Hyperpigmentation</p> <p><b>Answer:</b> T, T, F, T, T <b>Discussion:</b> <b>Reference:</b> [Ref: Davidson-23rd/Box-18.42/P-672]</p>
<p><b>21. Receptors of ADH are present in</b></p> <p>A) Brain B) Post pituitary gland C) Renal epithelial cell D) Heart E) Intestine</p> <p><b>Answer:</b> T, F, T, F, F <b>Discussion:</b> Exp: V1A Receptors present in- Vascular smooth muscle,Liver ,Brain,V1B Receptors -Ant pituitary gland,V2 Receptors-Renal epithelial cell mostly DCT+CT. <b>Reference:</b> (Ref:Vision 9th P-353)</p>	<p><b>22. Regarding thyroid hormone</b></p> <p>A) T4 can be regarded as a pro-hormone B) Thyroid hormone is responsible for yollowish tint of skin C) Daily intake of 250µg iodine is necessary for normal synthesis D) Deficiency features appears within 3-4 weeks of less iodine intake E) Conversion of T4 to T3 is done by thyroid peroxidase</p> <p><b>Answer:</b> T, F, F, F, F <b>Discussion:</b> Exp: b)Not related,c)150 µgm,d)2 months ,e)5µMonodeiodinase. <b>Reference:</b> [Ref: Ganong 25th/P-339+ Davidsons 23rd/P-634]</p>

<p><b>23. The conditions which causes increased aldosterone sec without affecting glucocorticoid sec are</b></p> <p>A) High potassium intake          B) Constriction of inferior vena cava in thorax          C) Hemorrhage          D) Secondary hyperaldosteronism          E) High sodium intake</p> <p><b>Answer:</b> T, T, F, T, F  <b>Discussion:</b> Exp: c+e=Both          Aldosterone+Glucocorticoid □.  <b>Reference:</b> [Ref: Ganong 25th/P-370]</p>	<p><b>24. Vasopression</b></p> <p>A) Is synthesized in the posterior pituitary          B) Is decapeptide          C) Has been synthesized in vitro          D) Is potentiated as regards its action on the kidney          E) Secretion is defective in nephrogenic diabetes insipidus</p> <p><b>Answer:</b> F, F, T, T, F  <b>Discussion:</b> Exp: a)stored in post pituitary, b)Peptide,e)Secretion defective in central diabetes insipidus  <b>Reference:</b> [Ref:Guyton 13th/P-949]</p>
<p><b>25. What are the hormone below acts by calcium-phospholipid system-</b></p> <p>A) Thyrotropin releasing hormone          B) Parathyroid hormone [cyclic AMP]          C) Oxytocin          D) Atrial natriuretic peptide [cyclic GMP]          E) Gonadotropins releasing hormone</p> <p><b>Answer:</b> T, F, T, F, T  <b>Discussion:</b>  <b>Reference:</b> [Ref:Guyton 13th/P-933]</p>	<p><b>26. Hormone-sensitive lipase breaks down triglycerides to release free fatty acids. Which of the following hormones impairs hydrolysis of triglycerides to fatty acids by inhibiting hormone-sensitive lipase?</b></p> <p>A) Cortisol          B) Glucagon          C) Growth hormone          D) Hydrocortisone          E) Insulin</p> <p><b>Answer:</b> E  <b>Discussion:</b>  <b>Reference:</b> (Ref: Vision 9th/P-445)</p>
<p><b>27. A 22-year-old male type I diabetic was received in the Accident and Emergency Department in ketoacidosis. What is the basic pathophysiology of diabetic ketoacidosis?</b></p> <p>A) Action of glucagon          B) Decreased glycolysis          C) Decreased enzyme production by liver          D) Increased ketone bodies formation          E) Insulin deficiency</p> <p><b>Answer:</b> E  <b>Discussion:</b>  <b>Reference:</b> [Ref: Ganong/25th/P-438]</p>	<p><b>28. A 39-year-old man with untreated diabetes mellitus type I is brought to the emergency room. An injection of insulin would be expected to cause an increase in his</b></p> <p>A) Urine glucose concentration          B) Blood glucose concentration          C) Blood K<sup>+</sup> concentration          D) Blood pH          E) Breathing rate</p> <p><b>Answer:</b> D  <b>Discussion:</b> The answer is D Explanation: Before the injection of insulin, the woman would have had hyperglycemia, glycosuria, hyperkalemia, and metabolic acidosis with compensatory hyperventilation. The injection of insulin would be expected to decrease her blood glucose (by increasing the uptake of glucose into the cells), decrease her urinary glucose (secondary to decreasing her blood glucose), decrease her blood K<sup>+</sup> (by shifting K<sup>+</sup> into the cells), and correct her metabolic acidosis (by decreasing the production of ketoacids). The correction of the metabolic acidosis will lead to an increase in her blood pH and will reduce her compensatory hyperventilation  <b>Reference:</b></p>

<p>29. A 48-year-old woman has secondary hyperaldosteronism. Which of the following can produce secondary hyperaldosteronism?-</p> <p>A) Increased adrenocorticotrophic hormone (ACTH)</p> <p>B) Increased angiotensin II</p> <p>C) Increased cortisol</p> <p>D) Increased renin</p> <p>E) Salt excess</p> <p><b>Answer:</b> D</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> (Ref: Pastest/Q-8.27)</p>	<p>30. A 54-year-old woman is referred to the Hypertension Clinic because she has failed to respond to combination of three anti-hypertensive-gents. Blood pressure is 168/98 mmHg in her arm, and initial investigations show Na<sup>+</sup> 146 mmol/l, K<sup>+</sup> 3.0 mmol/l and bicarbonate 32 mmol/l. What is the most likely diagnosis?</p> <p>A) Addison's disease</p> <p>B) Conn's syndrome</p> <p>C) Cushing's disease</p> <p>D) Pheochromocytoma</p> <p>E) Renal artery stenosis</p> <p><b>Answer:</b> B</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> [Ref: Vision/9th/374]</p>
<p>31. A 56-year-old woman on long-term steroid therapy was brought to the Accident and Emergency Department unconscious and hypotensive. On enquiry from the ambulance crew it was discovered that she had been unwell for last few days and had stopped taking her oral prednisolone. She most likely has:</p> <p>A) Addisonian crisis</p> <p>B) Diabetic ketoacidosis</p> <p>C) Hypothyroidism</p> <p>D) Primary hyperaldosteronism</p> <p>E) Sheehan's syndrome</p> <p><b>Answer:</b> A</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> (Ref: Pastest/Q-8.24)</p>	<p>32. If the follicle stimulating hormone (FSH)-producing cells in the anterior pituitary gland were selectively destroyed this would lead to:</p> <p>A) Decreased level of testosterone</p> <p>B) Decreased level of LH</p> <p>C) Decreased sperm count</p> <p>D) Increased level of testosterone</p> <p>E) Sertoli cells proliferation</p> <p><b>Answer:</b> C</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> (Ref: Pastest/Q-9.20)</p>
<p>33. Aldosterone is the primary mineralocorticoid. Which of the following is the primary stimulus for the release of aldosterone?</p> <p>A) Angiotensin II</p> <p>B) Cortisol</p> <p>C) High blood volume</p> <p>D) Hypernatraemia</p> <p>E) Hypokalaemia</p> <p><b>Answer:</b> A</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> (Ref: Pastest/Q-8.58)</p>	<p>34. All the following metabolic features are consistent with insulin deficiency except-</p> <p>A) Hyperglycemia</p> <p>B) Ketogenesis</p> <p>C) Dehydration</p> <p>D) Alkalosis</p> <p>E) Increase amino acid in blood</p> <p><b>Answer:</b> D</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> Ref: Ganong 25th/P-443)</p>
<p>35. During sleep there is a fall in the circulatory level of following hormone except-</p> <p>A) ADH</p> <p>B) Cortisol</p> <p>C) Insulin</p> <p>D) Thyroxin</p> <p>E) Epinephrine</p> <p><b>Answer:</b> A</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> [Ref: Rodde/Page-194]</p>	<p>36. Insulin causes maximum entry of glucose in following tissue-</p> <p>A) Neuronal cell</p> <p>B) Renal tubular cell</p> <p>C) Mucosa of small intestine</p> <p>D) Hepatocyte</p> <p>E) skeletal muscle</p> <p><b>Answer:</b> E</p> <p><b>Discussion:</b></p> <p><b>Reference:</b> [Ref: ABC 7th/P-553]</p>

<p><b>37. The glucose transporter that causes transport of glucose in mammal through secondary active mechanism is-</b></p> <p>A) GLUT-1 B) GLUT-2 C) GLUT-3 D) GLUT-4 E) SGLT-2</p> <p><b>Answer:</b> E <b>Discussion:</b> <b>Reference:</b> (Ganong-25th -433)</p>	<p><b>38. The hormone which has maximum glucocorticoid activity but no mineralocorticoid property is-</b></p> <p>A) Cortisol B) Aldosterone C) Cortisone D) Dexamethasone E) prednisolone</p> <p><b>Answer:</b> D <b>Discussion:</b> <b>Reference:</b> (Ref: Ganong-25th/P-359)</p>
<p><b>39. The hormone which stimulates growth initially but terminate growth ultimately is-</b></p> <p>A) Growth hormone B) Cortisol C) Thyroid hormone D) Androgen E) Insulin</p> <p><b>Answer:</b> D <b>Discussion:</b> <b>Reference:</b> (Ref: Ganong-25th/P-330)</p>	<p><b>40. Which of the following components of semen will be absent following radical prostatectomy?</b></p> <p>A) Ascorbic acid B) Alkaline phosphatase C) Citric acid D) Fructose E) Phosphorylcholine</p> <p><b>Answer:</b> C <b>Discussion:</b> <b>Reference:</b> (Ref: Pastest/Q-9.39)</p>
<p><b>41. Which one is not function of GH are</b></p> <p>A) Ketogenic B) Increase free fatty acid C) Cause insulin resistance D) Increase protein catabolism E) Causes positive nitrogen balance</p> <p><b>Answer:</b> D <b>Discussion:</b> D EXP: Protein Sparing <b>Reference:</b> (Ref: Ganong 25th/P-325)</p>	<p><b>42. Which one of the following is not a steroid</b></p> <p>A) 17 alfahydroxyprogesterone B) Estrone C) Relaxin, T D) Pregnenolone E) Vit D</p> <p><b>Answer:</b> C <b>Discussion:</b> <b>Reference:</b> (Ref: Ganong 25th/P-358)</p>
<p><b>43. A young woman has puffy skin &amp; hoarse voice. her plasma TSH concentration is low but increases markedly when she is given TRH. She probably has-</b></p> <p>A) Hyperthyroidism due to thyroid tumor B) Hypothyroidism due to defect in thyroid gland C) Hypothyroidism due to defect in pituitary gland D) Hypothyroidism due to abnormality in hypothalamus E) Hyperthyroidism due to abnormality in hypothalamus</p> <p><b>Answer:</b> D <b>Discussion:</b> <b>Reference:</b> (Ref: Ganong-25th/P-349)</p>	<p><b>44. Glucagon is a hyperglycemic hormone. Which the single mechanism which not involved in its mentioned effect?</b></p> <p>A) Glycogensolysis in liver B) Glycogenolysis in muscle C) Gluconeogenesis in liver D) Inhibits the metabolism of glucose 6 phosphate E) Increase level of Glucose 6 phosphate</p> <p><b>Answer:</b> B <b>Discussion:</b> <b>Reference:</b> (Ref: Ganong-25th/P-442)</p>

<p><b>45. In diabetic ketoacidosis there is decreased metabolic breakdown of</b></p> <p>A) Ketones B) Glycogen C) Fat D) Glucose E) Amino acid</p> <p><b>Answer:</b> D <b>Discussion:</b> <b>Reference:</b> (Ref: Rodde/Q-207)</p>	<p><b>46. Regarding SIADH which one is not true?</b></p> <p>A) Low plasma sodium concentration typically B) Low plasma osmolality usually &gt; 270 mmol/kg</p> <p>C) Plasma urea, creatinine, uric acid low normal D) Urine osmolality not minimally low typically &gt; 150 mmol/kg E) Urine sodium concentration not minimally low &gt; 30 mmol/L</p> <p><b>Answer:</b> B <b>Discussion:</b> Osmolality &lt; 270 mmol/Kg. <b>Reference:</b> (Ref: Davidsons 23rd/P-357)</p>
<p><b>47. Which of the following inhibits the secretion of growth hormone by the anterior pituitary?</b></p> <p>A) Sleep B) Stress C) Puberty D) Somatomedins E) Starvation</p> <p><b>Answer:</b> D <b>Discussion:</b> [III B 3 a]. Growth hormone is secreted in pulsatile fashion, with a large burst occurring during deep sleep (sleep stage 3 or 4) Growth hormone secretion is increased by sleep, stress, puberty, starvation, and hypoglycemia. Somatomedins are generated when growth hormone acts on its target tissues; they inhibit growth hormone secretion by the anterior pituitary, both directly and indirectly (by stimulating somatostatin release)</p> <p><b>Reference:</b> (Ref: BRS Physiology)</p>	<p><b>48. Which of the following is seen in Addison's disease?</b></p> <p>A) High serum Na<sup>+</sup> B) High serum K<sup>+</sup> C) Low BUN D) Dilute urine E) High serum Cl<sup>-</sup></p> <p><b>Answer:</b> B <b>Discussion:</b> <b>Reference:</b> (Ref: Guyton 13th/P-979)</p>
<p><b>49. Which one of the following is not hormone</b></p> <p>A) Vit -D B) Somatostatin C) Renin D) Serotonin E) Relaxin</p> <p><b>Answer:</b> D <b>Discussion:</b> (Exp: Serotonin – Neurotransmitter) <b>Reference:</b></p>	<p><b>50. Which step in steroid hormone biosynthesis, if inhibited, blocks the production of all androgenic compounds but does not block the production of glucocorticoids?</b></p> <p>A) Cholesterol → pregnenolone B) Progesterone → 11-deoxycorticosterone C) 17-Hydroxypregnenolone → dehydroepiandrosterone D) Testosterone → estradiol E) Testosterone → dihydrotestosterone</p> <p><b>Answer:</b> C <b>Discussion:</b> [Figure 7-11]. The conversion of 17 hydroxypregnenolone to dehydroepiandrosterone (as well as the conversion of 17-hydroxyprogesterone to androstenedione) is catalyzed by 17,20-lyase. If this process is inhibited, synthesis of androgens is stopped.</p> <p><b>Reference:</b> (Ref: BRS Physiology)</p>