

<p>1. Which one of the following hormone is Protein in nature?</p> <ul style="list-style-type: none"> a) Growth hormone b) Glucocorticoids c) Mineralocorticoids d) Sex hormones e) Melatonin 	<p>A</p>
<p>2. Atrial natriuretic factor use which one of the followings as a second messenger?</p> <ul style="list-style-type: none"> a) CAMP b) cGMP c) Ca²⁺ d) Phosphatidyl inositol e) kinase cascades 	<p>B</p>
<p>3. Which one of the followings is a water-soluble hormone?</p> <ul style="list-style-type: none"> a) Calcitriol b) Insulin c) Thyroid hormones d) Retinoids e) Steroids 	<p>B</p>
<p>4. Which of these can pass easily through cell membrane of target cells and bind to internal receptors?</p> <ul style="list-style-type: none"> a) Thyroxine b) Adrenocorticotropic hormone c) Insulin d) Glucagon e) Follicle stimulating hormone 	<p>A</p>

<p>5. A distinctive feature of the mechanism of action of thyroid hormones and steroid hormones is that:</p> <p>a) These hormones affect metabolism.</p> <p>b) These hormones bind with specific receptor proteins on the plasma membrane of target cells.</p> <p>c) These hormones bind to receptors inside cells.</p> <p>d) Target cells react more rapidly to these hormones than to local regulators.</p> <p>e) These hormones are regulated by feedback loops.</p>	C
<p>6. Thyroid hormone:</p> <p>a) Contains hydrophobic 23-amino-acid leader sequence directs the molecule into the cisternae of the endoplasmic reticulum</p> <p>b) Synthesized from amino acid tyrosine</p> <p>c) Signal via activation of adenyl cyclase</p> <p>d) Signal by binding to cell membrane receptors</p> <p>e) Composed of A-B subunits</p>	B
<p>7. Thyroid hormone is:</p> <p>a) Amino acid derived hormone.</p> <p>b) Glycoprotein.</p> <p>c) Protein derived hormone.</p> <p>d) Steroid hormone.</p> <p>e) Fatty acid derived hormone.</p>	A
<p>8. Which one of the following hormones is protein in nature?</p> <p>a) Adrenaline.</p> <p>b) Glucocorticoids.</p> <p>c) Mineralocorticoids</p> <p>d) Growth hormone</p> <p>e) Melatonin</p>	D

<p>9. The nitric oxide use which one of the followings as a second messenger?</p> <ul style="list-style-type: none"> a) CAMP b) CGMP c) Ca²⁺ d) Phosphatidyl inositol e) Kinase cascades 	B
<p>10. Which of the following hormones does not bind intracellular receptor :</p> <ul style="list-style-type: none"> a) Aldosterone b) Cortisol c) Estrogen d) Testosterone e) Insulin 	E
<p>11. Which one of the followings is a water-soluble hormone?</p> <ul style="list-style-type: none"> a) Calcitriol b) Insulin c) Thyroid hormones d) Retinoids e) Steroids 	B
<p>12. When an individual is subject to short-term starvation most available food is used to provide energy rather, than building blocks (growth and repair) using glucagon hormone, which enzyme would be particularly active in times of food shortage?</p> <ul style="list-style-type: none"> a) Adenyl cyclase b) Guanyl cyclase c) Phosphatase d) Protein kinase e) Tyrosine kinase 	A

<p>13. Which one of the following is a glycoprotein hormone in nature?</p> <ul style="list-style-type: none"> a) Glucocorticoids b) Mineralocorticoids c) Progesterone d) Testosterone e) TSH 	E
<p>14. Only certain cells in body are target cells for steroid hormones aldosterone which of the following is the best explanation why these are only sites that respond to hormone :</p> <ul style="list-style-type: none"> a) Only target cells are exposed to aldosterone b) Only target cells contain receptor to aldosterone c) Aldosterone is unable to enter non target cells d) Non target cells destroy aldosterone 	B
<p>15. Insulin receptors:</p> <ul style="list-style-type: none"> a) Present in the nucleus b) Present in the cytoplasm c) Seven helical transmembrane proteins which have extracellular and intracellular domains d) Has intrinsic tyrosine kinase activity e) When bound to insulin activates adenyl cyclase enzyme 	D
<p>16. Insulin receptors</p> <ul style="list-style-type: none"> a) present in the nucleus b) present in the cell membrane c) seven helical transmembrane proteins which have extracellular and intracellular domains d) They are GPCR (G-protein coupled receptors). e) when bound to insulin activates adenyl cyclase enzyme 	B

<p>17. Thyroid hormone</p> <ul style="list-style-type: none"> a) Synthesized from amino acid tyrosine b) Signal via activation of adenylyl cyclase c) C. composed of A-B subunits d) Signal by binding to cell membrane receptors e) Contains hydrophobic 23-amino-acid leader sequence directs the molecule into the cisternae of the endoplasmic reticulum 	A
<p>18. When hormone affects its own producing cells, this effect is called:</p> <ul style="list-style-type: none"> a. Endocrine b. Paracrine c. Autocrine d. Non- of the above 	C
<p>19. Which of the following is true about hormones?</p> <ul style="list-style-type: none"> a. All hormones are protein in nature b. All hormones act by binding to membrane receptors c. They are secreted by ductless glands (endocrine glands) d. They are present in large concentrations in plasma 	C
<p>20. A hormone secreted from anterior pituitary is:</p> <ul style="list-style-type: none"> a. Growth hormone b. Vasopressin c. Oxytocin d. Epinephrine 	A
<p>21. A hormone secreted from posterior pituitary is:</p> <ul style="list-style-type: none"> a. Vasopressin b. Thyrotropic hormone c. Prolactin d. Adrenocorticotrophic hormone 	A

<p>22. All of the following are amino acid derived hormones except:</p> <ul style="list-style-type: none"> a. Thyroxin b. Serotonin c. Adrenaline d. Noradrenaline e. FSH 	E
<p>23. All of the following are peptide hormones except:</p> <ul style="list-style-type: none"> a. Calcitonin b. TRH c. Vasopressin d. Parathormone e. ACTH 	D
<p>24. All Which of the following hormone Act by activation of Protein kinase C</p> <ul style="list-style-type: none"> a. β adrenergic catecholamine b. $\alpha 2$ adrenergic catecholamine c. $\alpha 1$ adrenergic catecholamine. d. Insulin 	C
<p>25. The following hormone that acts through second messenger:</p> <ul style="list-style-type: none"> a. Cortisol b. Thyroxin c. Adrenaline d. Calcitriol 	C
<p>26. HRE is:</p> <ul style="list-style-type: none"> a. present in the nucleus b. Bind to cAMP c. Phosphorylate some protein d. When stimulated lead to formation of specific Trna 	A

<p>27. All the following hormones are protein in nature EXCEPT:</p> <ul style="list-style-type: none"> a. Insulin b. FSH c. TRH d. Oxytocin e. Progesterone 	E
<p>28. One of the types of G regulatory protein is:</p> <ul style="list-style-type: none"> a. Gm b. Gc c. Gi d. Gf 	C
<p>29. Effects of ANF includes all of the following EXCEPT:</p> <ul style="list-style-type: none"> a. Vasoconstriction b. Diuresis c. Naturesis d. Inhibition of aldosterone 	A
<p>30. The G regulatory protein responsible for activation of PLC to:</p> <ul style="list-style-type: none"> a. Gs b. Ga c. Gi d. Gq 	D
<p>31. In the STAT pathway when phosphorylation occur:</p> <ul style="list-style-type: none"> a. Nucleus degradation b. Bind to specific RNA c. lysosomes release enzymes d. Activation of transcription 	D

<p>32. Inositol 1,3,5 triphosphate will exert its effect as second messenger through the activation of:</p> <ul style="list-style-type: none"> a. calcium dependent protein kinase b. CAMP dependent protein kinase c. cGMP dependent protein kinase d. protein kinase C 	D
<p>33. Cytoplasmic receptors bind with:</p> <ul style="list-style-type: none"> a. glucagon b. Insulin c. glucocorticoids d. FSH 	C
<p>34. All of the following hormones used calcium or phosphatidyl inositol as second messenger EXCEPT:</p> <ul style="list-style-type: none"> a. Adrenergic catecholamines b. glucagon c. antidiuretic d. thyrotropin releasing hormones 	B
<p>35. All the following statements about cyclic AMP are correct EXCEPT:</p> <ul style="list-style-type: none"> a. it is synthesized by adenylate cyclase b. it is catabolized by phosphodiesterase c. it acts as second messenger for glucagon d. it mediates its action through different types of kinases as JAK kinase 	D
<p>36. Cyclic GMP acts as a second messenger To:</p> <ul style="list-style-type: none"> a. Glycoprotein hormones b. steroid hormones c. Atrial natriuretic factor (ANF) d. Thyroxin hormones 	C

<p>37. All these hormones mediate their actions at nuclear level EXCEPT:</p> <ul style="list-style-type: none"> a. Glucagon b. Progesterone c. Triiodothyronine d. Glucocorticoids 	A
<p>38. Hormone response element is all the following EXCEPT:</p> <ul style="list-style-type: none"> a. It is a specific sequence of DNA b. It is the binding site for hormone receptor complex c. It mediates the hormonal action through affection the gene expression d. It mediates the action of adrenaline 	D
<p>39. About cyclic AMP all are true EXCEPT:</p> <ul style="list-style-type: none"> a. It is synthesized by adenylate cyclase b. Its catabolic product is 5-AMP c. It mediates its action through JAK kinase d. It is the second messenger for glucagon hormone 	C
<p>40. Which of the following acts to increase the release of Ca from the endoplasmic reticulum:</p> <ul style="list-style-type: none"> a. Diacylglycerol (DAG) b. Inositol triphosphate c. Parathyroid hormone d. Calcitonin 	B
<p>41. Which one of the following hormones is hydrophilic and has extracellular receptors?</p> <ul style="list-style-type: none"> a. Cortisol b. Estradiol c. Glucagon d. Thyroxine e. Prostaglandin 	C

<p>42. Which one of the following is NOT a general feature of hydrophilic hormones?</p> <p>a. They are proteins and polypeptides</p> <p>b. They do not need a transport protein</p> <p>c. They bind to intracellular receptor</p> <p>d. Their plasma half-life is short in minutes</p>	<p>C</p>
<p>43. Cyclic GMP (CGMP) is used as a second messenger by:</p> <p>a. Insulin</p> <p>b. Glucagon</p> <p>c. Epinephrine</p> <p>d. Atrial natriuretic factor (peptide)</p> <p>e. Thyroxine</p>	<p>D</p>
<p>44. The G protein which has intrinsic GTPase activity is a:</p> <p>a. Monomer</p> <p>b. Dimer</p> <p>c. Trimer</p> <p>d. Tetramer</p> <p>e. Polymer</p>	<p>C</p>
<p>45. Which of the following activate JAK kinase:</p> <p>a. Insulin</p> <p>b. Growth hormone</p> <p>c. Glucagon</p> <p>d. Adrenaline</p> <p>e. Nitric oxide</p>	<p>B</p>