Written Q ON Physio Endo 4,5

1. ***Mention mechanism of action of thyroid hormone at cellular level ?***
2. ***Enumerate 4 functions of thyroid hormone ?***
3. ***Mention the effect of thyroid hormone on blood glucose ?***
4. ***Enumerate control of thyroid hormone ?***
5. ***Def wolf chikaff effect ?***
6. ***Def cretinism , myxedema ?***
7. ***Enumerate 4 manifestation of cretinism , myxedema , hyperthyroidism ?***
8. ***Enumerate ocular signs of hyperthyroidism ?***

MCQ ON Physio Endo 4,5

1. Slow thinking and speech occur in which of the following diseases? *a) Acromegaly.* *b) Cushing's disease.* *c) Gigantism.* *d) Graves' disease.* *e) Myxedema.*	***E***
2. The thyroid gland: *a. secretes only T3 and T4 in equal amounts.* *b. Decreases in size when dietary iodine is deficient.* *c. Takes up iodide against its electrochemical gradient.* *d. Is relatively avascular.* *e. Does not contain any enzymes.*	***C***

3. Regarding thyroxine, all the following are true except: *a. Is essential for normal development of the brain.* *b. Acts more rapidly than triiodothyronine (T3).* *c. Increases the resting rate of carbon dioxide production.* *d. Is essential for normal red cell production.*	***B***
4. Removal of the thyroid gland (without replacement therapy) leads to an increase all the following except: *a. Blood cholesterol level.* *b. Tremor of the fingers.* *c. Response time for tendon reflexes.* *d. Blood TSH level.*	***B***
5. Which of the following describes the effect of the level of T3 and T4 in the blood on the thyroid stimulating hormone (TSH) ? *a. Positive feedback.* *b. Negative feedback.* *c. Synergistic effect.* *d. No affection.* *e. Stimulation.*	***B***
6. Which one of the following diseases causes an intolerance to cold weather? *a) Acromegaly.* *b) Cushing's.* *c) Gigantism.* *d) Graves's.* *e) Myxedema.*	***E***

7. Which of the followings is an intracellular function of thyroxin? *a) Decrease ATP synthesis* *b) Decrease Na/K ATPase activity* *c) Increase the number of mitochondria* *d) Decrease the activity of mitochondria* *e) Decrease amino acid cellular uptake*	***C***
8. Disproportionate dwarfism occurs in the following disease: *a) gigantism.* *b) acromegaly.* *c) myxedema.* *d) cretinism.* *e) Graves' disease.*	***D***
9. Increased level of cholesterol & triglycerides occurs in the following disease: *a) gigantism.* *b) acromegaly.* *c) myxedema.* *d) Cushing's disease.* *e) Graves' disease.*	***C***
10. Increased appetite but there is loss of weight occurs in the following disease: *a) gigantism.* *b) acromegaly.* *c) myxedema.* *d) Cushing's disease.* *e) Graves' disease.*	***E***

11. Heat intolerance occurs in the following disease: *a) diabetes mellitus.* *b) cretinism.* *c) myxedema.* *d) diabetes insipidus.* *e) Graves' disease.*	***E***
12. The action of thyroid stimulating immunoglobulin (TSI) on the thyroid is affected by the level of T3 and T4 in the blood in the following manner: *a) Negative feedback.* *b) Positive feedback.* *c) Inhibition.* *d) Stimulation.* *e) No feedback.*	***E***
13. Cabbage decreases I- uptake by the thyroid gland because it contains: *a) antithyroid agents.* *b) Thyroid stimulating immunoglobulin (TSI).* *c) Thyroid stimulating hormone (TSH).* *d) Human chorionic gonadotropin (hCG).* *e) Excess iodine.*	***A***
14. Which of the following hormones binds to a receptor in the nucleus? *a) TSH.* *b) TRH.* *c) Growth hormone.* *d) Prolactin hormone* *e) Thyroxin.*	***E***

15. Failure of conversion of carotenes in the liver to vitamin A causes the skin to be: *a) Yellowish.* *b) Warm.* *c) Moist.* *d) Sweaty.* *e) Thin.*	***A***
16. Regarding the Wolff–Chaikoff effect of excess intake of iodine on the thyroid, which of the following is correct? *a. Decreases release of thyroid hormones.* *b. Increases the activity of thyroid enzymes.* *c. Increases TSH effect on the thyroid gland.* *d. Increases proteolysis of thyroid thyroglobulin.* *e. Increases binding of iodine in the thyroid gland.*	***A***
17. A young woman has puffy skin and a hoarse voice. Her plasma TSH concentration is low but increases markedly when she is given TRH. She probably has: *a. Hyperthyroidism due to a thyroid tumor.* *b. Hypothyroidism due to a primary abnormality in thyroid gland.* *c. Hypothyroidism due to a primary abnormality in the pituitary gland.* *d. Hypothyroidism due to a primary abnormality in the hypothalamus.* *e. Hyperthyroidism due to a primary abnormality in the hypothalamus.*	***D***
18. Tremors of the outstretched hands occur in the following disease: *a) Gigantism.* *b) Acromegaly.* *c) Myxedema.* *d) Cushing's disease.* *e) Graves' disease.*	***E***

19. Physiological goiter is sometimes noticed in: *a) Pregnancy.* *b) Grave's disease.* *c) Iodine deficiency.* *d) Iodine excess.* *e) Cretinism.*	***A***
20. Protruded tongue occurs in the following disease: *a) gigantism.* *b) acromegaly.* *c) myxedema.* *d) cretinism.* *e) Graves' disease.*	***D***
21. Which of the following is inconsistent with the diagnosis of Graves' disease? *a. Increased heart rate* *b. Exophthalmos* *c. Increased plasma levels of triiodothyronine (T3)* *d. Increased plasma levels of thyroxine (T4)* *e. Increased plasma levels of thyroid-stimulating hormone (TSH)*	***E***
22. A patient has a pituitary tumor that secretes large amounts of thyroid-stimulating hormone. Which of the following findings would most likely be reported for this patient? *a. Goiter* *b. Enophthalmos* *c. Decreased respiratory rate* *d. Normal plasma levels of thyroxine (T4)* *e. Normal plasma levels of triiodothyronine (T3)*	***A***

23. Which of the following would likely be reported in a patient with a deficiency in iodine intake? *a. Weight loss* *b. Tachycardia* *c. Nervousness* *d. Increased sweating* *e. Increased synthesis of thyroglobulin*	***E***
24. Which of the following physiological responses is greater for triiodothyronine (T3) than for thyroxine (T4)? *a. Plasma half-life* *b. Plasma concentration* *c. Secretion rate from the thyroid* *d. Affinity for nuclear receptors in target tissues* *e. Latent period for onset of action in target tissues*	***D***
25. Which of the following hormones has anabolic effects in muscle at physiological concentrations but is catabolic at very high levels? *a. Insulin* *b. Estrogen* *c. Thyroxine (T4)* *d. Testosterone* *e. Growth hormone*	***C***
26. A subject takes thyroxine (T4) for several weeks to lose 10 kilograms of his weight. Which of the following would be expected to occur as long as he continues the same dose of thyroxine (T4)? *a. Goiter* *b. Exophthalmos* *c. Myxedema* *d. Tachycardia* *e. Lethargy*	***D***

27. Which of the following has no negative feedback? *a. Thyroid stimulating hormone (TSH)* *b. Thyroid stimulating immunoglobulins (TSI)* *c. Thyrotrpin releasing hormone (TRH)* *d. Growth hormone* *e. Prolactin hormone*	***B***
28. Inhibition of the iodide pump would be expected to cause which of the following changes? *a. Extreme nervousness* *b. Increased metabolic rate* *c. Increased synthesis of thyroglobulin* *d. Increased synthesis of Thyroxine (T4)* *e. Decreased thyroid-stimulating hormone secretion*	***C***
29. A patient has hypothyroidism due to a primary abnormality in the thyroid gland. Increased plasma levels of which of the following would most likely be reported? *a. Iodide* *b. Cholesterol* *c. Diiodotyrosine* *d. Thyroxine-binding globulin* *e. Reverse triiodothyronine (RT3)*	***B***
30. Which of the following disease is caused by decreased secretion of thyroid hormone in infants? *a) Gigantism.* *b) Acromegaly.* *c) Myxedema.* *d) Cretinism.* *e) Graves' disease.*	***D***

31. Mental retardation occurs in the following disease: *a) Gigantism.* *b) Acromegaly.* *c) Myxedema.* *d) Cretinism.* *e) Graves' disease.*	***D***
32. Which of the following is a manifestation of lower thyroid activity? *a) Exophthalmos.* *b) Lack of concentration & long reflex time.* *c) Loss of weight* *d) Pulse rate of 100/m.* *e) Silky hair.*	***B***
33. Hyperthyroidism is associated with: *a) Increased systolic pressure, increased diastolic pressure and increased pulse pressure.* *b) Increased systolic pressure, normal diastolic pressure and increased pulse pressure.* *c) Increased systolic pressure decreased diastolic pressure and decreased pulse pressure.* *d) Increased systolic pressure, increased diastolic pressure and decreased pulse pressure.* *e) Decreased systolic pressure decreased diastolic pressure and decreased pulse pressure.*	***B***
34. Which of the following hormones converts carotenes vitamin A in the liver? *a) thyroxin.* *b) TSH.* *c) TRH.* *d) growth H.* *e) prolactin H.*	***A***

35. Lack of thyroid hormones in adults produces: *a) Hashimoto disease.* *b) Graves' disease.* *c) Myxedema.* *d) Cretinism.* *e) Autoimmune thyroiditis.*	**C**
36. One of the following hypophyseal hormones controls thyroid hormone secretion: *a) TSH* *b) ACTH* *c) FSH* *d) LH* *e) MSH*	**A**
37. Cabbage act as goitrogen because it: *a) Decreases I' uptake by the thyroid gland* *b) Contains thyroid stimulating immunoglobulin (TSI)* *c) Inhibits peroxidase enzyme* *d) Interferes with thyroid receptors.* *e) Contains excess iodine.*	**A**
38. Thyroidectomy leads to an increase in the following, except: *a) Blood TSH level.* *b) Blood cholesterol level.* *c) Blood glucose level.* *d) Response time for tendon reflexes.* *e) Skin thickness.*	**C**

39. Thyroxin: *a) Is stored in the follicular cells as goitrogens.* *b) Decreases the resting rate of CO2 production.* *c) is essential for normal development of the brain.* *d) Acts more rapidly than triiodothyronine.* *e) Is not essential for red cell production.*	***C***
40. Thyroid hormone increase the following : *a) Peripheral resistance* *b) Duration of reflex time* *c) Sleeping hours* *d) Thickness of skin* *e) Pulse pressure*	***E***
41. TSH is secreted at a higher rate : *a) In primary thyrotoxicosis* *b) When the diet rich in iodine* *c) After partial removal of the thyroid gland* *d) After removal of pituitary gland* *e) None of the above*	***C***
42. Increase thyroid gland size can occur as consequence of the following except : *a) Iodine deficiency* *b) Pituitary adenoma* *c) Graves dse* *d) Excessive intake of exogenous thyroxine* *e) Excessive intake of cabbage*	***D***

43. The thyroid hormones act through : a. *Binding to membrane receptor on target cells* b. *Reacting with cytoplasmic receptor* c. *Increasing CAMP in the target cell* d. *Increasing CGMP in the target cell* e. *Reacting with nuclear receptor leading to increased mRNA formation*	***E***
44. Which is true : a. *In thyrotoxcosis , nervousness and tremors due to increased of consumption of brain* b. *Thyroid hormone increase cholesterol synthesis in liver* c. *Dtermination BMR is specific test for thyroid function* d. *Cretin is an idiot because thyroid hormones are essential for development of nervous system* e. *Exopthalmus usually encountered in graves dse due to LATS*	***D***
45. Graves dse is characterized by : a. *Apathy and mental retardation* b. *Poor tolerance to heat and frequent exophtalamus* c. *Bradycardia , decreased BMR and increased serum cholesterol level* d. *Moon face and dark pigmentation of skin* e. *Hypercaroteinmia and yellow discoloration of skin*	***B***
46. Myxedema is characterized by all except : *a) A low serum cholesterol level* *b) Poor tolerance to cold and depressed memory* *c) Slow thinking and puffiness of face* *d) Dryness of skin and non pitting edema*	***A***

47. Infantile thyroid deficiency is characterized by all except : *a) Retarded growth and delayed walking* *b) Protruded tongue and abdomen* *c) Moon face and bufflo hump* *d) A low BMR and inability to tolerate cold weather* *e) Short stature , mental retardation and bowl incontinence*	**C**
48. In myxedema , there is : *a) Increased rate of catabolism* *b) Low serum cholesterol level* *c) Reduction of body weight* *d) Reduced tolerance to heat* *e) Increased sweating* *f) Non pitting edema*	***F***
49. Excessive secretion of thyroid hormone causes : *a) Marked tachycardia* *b) Tendency to hypoglycemia* *c) Decreased appetite* *d) Decreased BMR* *e) A marked increase in body weight*	***A***
50. Which of the following hormones is important for myelination of nerve fibers: *a) Thyroid.* *b) Glucagon.* *c) FSH.* *d) Oxytocin.*	***A***

51. Patient has elevated T4 , low TSH , thyroid gland is smaller than normal, the explanation for that is : *a) Patient has lesion in ant pituitary that prevent TSH secretion* *b) Patient is taking propythiouracil* *c) Patient is taking thyroid extract* *d) Patient is consuming large amount of iodine* *e) Patient has graves dse*	***C***
52. Patient has goiter associated with high plasma level of both TRH and TSH . her heart rate is elevated . this patient most likely has which of the following: *a) Edemic goiter* *b) Hypothalamic tumor secreting TRH* *c) Pituitary tumor secreting large amounts of TSH* *d) Graves dse*	***B***
53. Which of the following occurs in patient with myxedema : *a) Somnolence* *b) Palpitation* *c) Increased respiratory rate* *d) Increased cardiac output* *e) Weight loss*	***A***
54. Blood level of which of the following decreased in graves dse: *a) T3* *b) T4* *c) Diiodothyronine* *d) TSH* *e) Iodide*	***D***

55. Which of the following hormones has anabolic effects in muscle at physiological concentrations but is catabolic at very high levels? *a) Insulin.* *b) Estrogen.* *c) Testosterone.* *d) Thyroxine (T4)* *e) Growth hormone.*	***D***
56. The primary effect of T3 and T4 is to: *a. Decrease blood glucose.* *b. Promote the release of calcitonin.* *c. Promote heat generating metabolic reactions.* *d. Stimulate the uptake of iodine by the thyroid.* *e. Stimulate cholesterol synthesis by the hepatocytes*	***C***
57. Which of the following hormones is secreted by the parafollicular cells of thyroid glands? *a) Thyroxin.* *b) Triiodothyronine.* *c) Calcitonin.* *d) Cortisol.* *e) TSH.*	***C***
58. A subject takes thyroxine (T4) for several weeks to lose 10 kilograms of his weight. Which of the following would be expected to occur as long as he continues the same dose of thyroxine (T4): *a. Goiter* *b. Exophthalmos* *c. Myxedema* *d. Tachycardia* *e. Lethargy*	***D***

59. Which of the following is not essential for normal biosynthesis of thyroid hormones? *a) Iodine* *b) Ferritin* *c) Thyroglobulin* *d) Protein synthesis* *e) TSH*	***B***
60. Primary increase in thyroid gland activity leads to: *a) The follicles enlarge and fill with colloid.* *b) The blood level of TSH increases.* *c) It takes up iodine at a slower rate.* *d) The follicular cells become more columnar.* *e) The patient develops myxedema.*	***D***
61. TSH is secreted at a higher rate: *a) In primary thyrotoxicosis.* *b) When the diet rich in iodine.* *c) After partial removal of thyroid gland.* *d) After removal of pituitary gland.* *e) non of the above.*	***C***