



'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 5th Semester Examination, 2021

CC12-PHYSIOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

GROUP-A

1. Answer the following questions (any *five*): 1×5 = 5
- (a) What is the normal plasma cortisol level?
 - (b) Name the steps in the synthesis of thyroxine.
 - (c) Which hormone is secreted by testes?
 - (d) What are the hormones secreted by parathyroid gland?
 - (e) Name the hormones of anterior pituitary.
 - (f) What is the cause of gigantism?
 - (g) Enumerate the main causes of Addison's disease.
 - (h) What are the main actions of oxytocin?
 - (i) Which characteristics are shared by peptide hormones and steroid hormones?
 - (j) What are local hormones?

GROUP-B

Answer any *three* from the following 5×3 = 15

- 2. Mention the source and chemistry of ADH. 5
- 3. Describe the histological structure of normal, hypoactive and hyperactive thyroid gland with suitable diagrams. 5
- 4. State the functions of pineal hormones. 5
- 5. Describe the synthesis and catabolism of adrenaline. 5
- 6. Write the importance of prostaglandins in body. 5
- 7. Discuss the functions of gastrin and secretin. 5

GROUP-C

Answer any two from the following

10×2 = 20

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| 8. (a) What do you mean by positive and negative feedback mechanism in the regulation of hormone secretion? | 3 |
| (b) How secretion of melatonin is regulated? | 2 |
| (c) Describe the effects of glucagon. | 5 |
| 9. (a) What is Addisonian crisis? | 2 |
| (b) Describe the effects of insulin on carbohydrate metabolism. | 8 |
| 10.(a) "Hypothalamus is a neuroendocrine organ" — Justify. | 6 |
| (b) Discuss the physiological role of oxytocin in the control of milk release in humans. | 4 |
| 11.(a) What is the normal blood calcium level? | 1 |
| (b) Name the hormones that are concerned with the regulation of normal blood calcium level. | 3 |
| (c) Discuss their actions on the maintenance of calcium homeostasis. | 6 |

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