



'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 5th Semester Examination, 2023

CC12-PHYSIOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

GROUP-A

1. Answer any **five** from the following: 1×5 = 5
- (a) Type-I diabetes mellitus caused by _____.
 - (b) Which type of cell of pancreas secretes Glucagon?
 - (c) Which pituitary hormone stimulates the growth of granulosa cells and oocyte in the ovarian follicles?
 - (d) What is congenital adrenal hyperplasia?
 - (e) Name the ovarian hormones.
 - (f) Name some of the local hormones in the body.
 - (g) What is the normal blood calcium level in our body?
 - (h) What is the cause of acromegaly?
 - (i) What does the pineal gland secrete?
 - (j) What is the active form of Vitamin-D?

GROUP-B

Answer any three from the following 5×3 = 15

2. Describe the histological structure of thyroid gland. 5
3. Describe the synthesis and catabolism of adrenaline. 5
4. Define "Hypothalamic-hypophyseal portal system" — with its roles in pituitary secretions. 5
5. (a) Enumerate the hormones secreted by anterior pituitary gland. 3
- (b) Name the types of cells present in anterior pituitary gland. 2

6. (a) Name hormones of pancreas. 2
(b) What is Cushing's syndrome? 3
7. Write a note on Diabetes mellitus. 5

GROUP-C

Answer any two from the following

10×2 = 20

8. (a) Describe the endocrine functions of Kidney. 5
(b) Define the functions of ANP and BNP. 5
9. (a) Write the name of different layers of adrenal cortex and their functions. 4
(b) Mention the different physiological functions of adrenal medullary hormones. 6
- 10.(a) Discuss the functions of thyroid hormones on growth and metabolism. 2+4
(b) What is reverse T₃? 1
(c) How does TSH regulates the secretions of thyroid hormones? 3
11. Write short notes on the following: 2+8
(i) Graves' disease
(ii) Feedback mechanism in regulation of hormone secretion with example.

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