

B. SC. BIOTECHNOLOGY
Second Semester
Biochemistry-II
(BBT - 08)

Duration: 3Hrs.

Full Marks: 70

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

1. Answer the following questions (any five)

2 x 5=10

- a) What is the difference between nitrifying and denitrifying bacteria?
- b) What is symbiotic association?
- c) Give the examples of excitatory neurotransmitters.
- d) Give the examples of inhibitory neurotransmitters.
- e) Write a short note on rhizome and legumes.
- f) What is the action of glucagon?
- g) What are the hormones produced by the small intestine?

2. Answer the following questions (any five)

3 x 5=15

- a) What are the different hormones produced by the thyroid gland? Explain in detail.
- b) Explain the use of facultative anaerobes in nitrogen fixation.
- c) What are the functions of azotobacter and cyanobacterias?
- d) What are the function of the NMDA receptors in a neuron?
- e) What is long term potentiation?
- f) Draw the detail structure of a neuron
- g) What is treadmilling with respect to actin molecules.

PTO....

3. Answer the following questions (any five)

5 x 5=25

- a) Give the historical account of hormone.
- b) Mention the hormones secreted by the pituitary gland and their action.
- c) Mention the different plant hormones and their uses.
- d) Write in detail about nitrogen fixation.
- e) What are water soluble vitamins? Explain briefly.
- f) What are water insoluble vitamins? Explain briefly.
- g) Mention the deficiency syndromes of vitamins.
- h) Describe the relay of transmission in neurons.

B. SC. BIOTECHNOLOGY

Second Semester

Biochemistry-II

(BBT - 08)

(The figures in the margin indicate full marks for the questions)

Duration: 20 minutes

Marks – 20

PART A- Objective Type

A. All questions are compulsory

1x20=20

1. Insulin is a
 - a. Plant hormone
 - b. Steroid hormone
 - c. Protein hormone
 - d. Enzyme

2. Which is the master gland of the body
 - a. Pituitary
 - b. Adrenal
 - c. Hepatic
 - d. Gonad

3. Who was the first scientist to identify a hormone
 - a. Claude Bernard
 - b. Ernest sterling
 - c. William baylin
 - d. William wordsworth

4. Auxin is a
 - a. Plant hormone
 - b. Steroid hormone
 - c. Protein hormone
 - d. Enzyme

5. Follicle stimulating hormone acts on
- Males
 - Females
 - Both of the above.
 - None of the above.

6. Luteinizing hormone is produced in
- Males
 - Females
 - Both of the above
 - None of the above

7. Oxytocin is produced by
- Posterior pituitary
 - Anterior Pituitary
 - Adrenal
 - Gonads

8. Parathyroid hormone is produced by
- Parathyroid gland.
 - Pituitary gland
 - Hypothalamus
 - Adrenal medulla

9. Glucagon favours
- Glycolysis
 - Gluconeogenesis
 - Insulin secretion
 - Lipid generation

10. Aldosterone is a
- Mineralocorticoid
 - Glucocorticoid
 - None of the above
 - Both of the above.

11. What is the function of cytokinin?

12. What is the function of gibberellins?

13. What is the function of ethylene

14. What is the function of abscisic acid?

15. What are contractile proteins?

16. What are protein and steroid hormones?

17. Give an example of steroid hormone.

18. Which was the first genetically engineered animal hormone?

19. What is vitamin B complex?

20. What are leguminous plants?
