MSc AHS, March-2025

BLDE (DEEMED TO BE UNIVERSITY)

M.Sc. Allied Health Sciences (Medical Physiology)

[Time: 3 Hours] [Max.Marks:80]

IV SEMESTER

PAPER – II (Respiratory System)

QP CODE: 9037

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions **10X3 = 30 Marks**

1. Enumerate the forms of Oxygen transport in body. Discuss the mechanism of transport of Oxygen from lungs to tissues. Add a note on hyper baric oxygen therapy.
2. Define, Classify ,Features and Mode of treatment of Hypoxia
3. Name the various inspiratory and expiratory muscles. Describe mechanics of breathing in detail. Add a note on Lung compliance

Short Essays: **5 X 10 = 50 Marks**

4. Factors affecting diffusion of gas
5. Cyanosis
6. Ventilation – perfusion ratio
7. Explain non respiratory functions of respiratory system
8. Periodic breathing
9. Describe various lung volumes and capacities with their normal values.
10. Dead space- definition, normal value and significance
11. Decompression sickness
12. Lung surfactant
13. Respiratory adjustments during muscular exercise

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[Time: 3 Hours] **[Max.Marks:80]**

IV SEMESTER

PAPER – III (Endocrine System)

QP CODE: 9038

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions **10X3 = 30 Marks**

1. Explain the importance of calcium in the body. Discuss the role of parathyroid hormone, calcitonin, and 1, 25-dihydroxyvitamin D in maintaining calcium homeostasis.
2. Explain the structure, synthesis, and secretion of insulin from the pancreatic islets. Discuss the physiological actions of insulin in regulating blood glucose levels.
3. Describe the synthesis, storage, and release of catecholamines (epinephrine and norepinephrine) from the adrenal medulla. Discuss the physiological actions and clinical significance of catecholamines.

Short Essays: **5 X 10 = 50 Marks**

4. Explain the role of parathyroid hormone in regulating calcium levels in the blood. What are the consequences of parathyroid hormone deficiency or excess?
5. Discuss the structure and functions of the adrenal cortex. Explain the role of cortisol in stress response and metabolism. Discuss the pathophysiology of Cushing's syndrome and Addison's disease.
6. Explain the role of growth hormone in growth, metabolism, and protein synthesis. Discuss the disorders associated with growth hormone deficiency and excess.
7. Briefly explain the different chemical classifications of hormones, providing examples for each category.
8. Describe the functions of antidiuretic hormone (ADH). How do these hormones help maintain homeostasis?
9. Outline the steps involved in the synthesis of thyroid hormones (T3 and T4). What is the role of iodine in this process?
10. Briefly describe the symptoms and causes of hypothyroidism and hyperthyroidism. How are these conditions diagnosed and treated?
11. Discuss the role of the hypothalamus and pituitary gland in regulating the reproductive system.
12. Compare and contrast the endocrine and nervous systems in terms of their structure, function, and speed of response.
13. Explain the physiological effects of sex hormones (estrogen, progesterone, and testosterone).