

PRACTICE SET
End Semester Examination, May 2026

Program: BMLT

Semester: II

Subject: Human Anatomy & Physiology-II

Subject Code: 42ABMT009

Course Outcome:

On the completion of the Course, the students will be able to:

Course Outcomes	Description
CO1	Understand the anatomy of urinary system, general properties, abnormal constituents and related diseases found in urine.
CO2	Understand the anatomy of nervous system, classifications, role of brains and factors affecting nerve impulse that required in medical sciences and technology.
CO3	Understand the role of glands, secretions of hormones and its mechanism of actions and also know the importance of lymphatic system, their functions
CO4	Understand the anatomy of reproductive system of male and females, hormones involved fertilization, pregnancy, fertility related terms.
CO5	Understand the nutrition and sense organs, their anatomy, roles in human physiology and challenges to maintain whole mechanism and related studies

1. Section A : 10 Marks Question covering All units (Total No. of questions 30)

2. Section B : 20 Marks Question covering All units (Total No. of questions 10)

UNIT I

Section A (10 marks)

1. Define the urinary system and list its components. Explain its basic functions such as excretion, osmoregulation, and maintenance of acid-base balance. **[CO1, Remember, LOT]**
2. Describe the anatomy of the kidney in detail, including cortex, medulla, renal pelvis, and blood supply with a labeled explanation. **[CO1, Understand, LOT]**

3. Explain the structure and functions of the nephron, including Bowman's capsule, loop of Henle, and tubules in urine formation. [CO1, Understand, LOT]
4. Describe the role of ureters, urinary bladder, and urethra in urine transport, storage, and excretion mechanisms. [CO1, Understand, LOT]
5. Explain the normal composition of urine, including water, urea, electrolytes, and other constituents along with physical characteristics. [CO1, Understand, LOT]
6. Analyze the process of urine formation, including glomerular filtration, tubular reabsorption, and secretion with mechanisms involved. [CO1, Analyze, HOT]

Section B (20 marks)

7. Analyze how different parts of the urinary system work together to maintain fluid and electrolyte balance in the body. [CO1, Analyze, HOT]
8. Design a detailed explanation of kidney failure including its causes, symptoms, diagnostic methods, treatment, and preventive measures. [CO1, Create, HOT]

UNIT II

Section A (10 marks)

9. Define the nervous system and classify it into central and peripheral systems with their functions. [CO2, Remember, LOT]
10. Explain the structure and functions of a neuron, including dendrites, axon, and synapse. [CO2, Understand, LOT]
11. Describe the anatomy of the brain, including cerebrum, cerebellum, and brainstem with their functions. [CO2, Understand, LOT]
12. Explain the autonomic nervous system and its role in regulating involuntary activities. [CO2, Understand, LOT]
13. Describe the composition, circulation, and function of cerebrospinal fluid (CSF). [CO2, Understand, LOT]
14. Analyze the mechanism of nerve impulse transmission, including action potential and synaptic transmission. [CO2, Analyze, HOT]

Section B (20 marks)

15. Analyze the structure and functions of the nervous system and evaluate its role in coordination and control of body activities. [CO2, Analyze, HOT]
16. Design a detailed explanation of brain functions and related disorders such as stroke and epilepsy. [CO2, Create, HOT]

UNIT III

Section A (10 marks)

17. Analyze the mechanism of hormone action including receptor interaction and feedback regulation. [CO3, Analyze, HOT]

18. Define endocrine glands and list major glands such as pituitary, thyroid, and adrenal glands. [CO3, Remember, LOT]
19. Explain the functions of major endocrine glands and their hormones in regulating body activities. [CO3, Understand, LOT]
20. Describe types of exocrine glands and their mechanisms of secretion. [CO3, Understand, LOT]
21. Explain the lymphatic system and its functions in fluid balance and immunity. [CO3, Understand, LOT]
22. Describe the role of spleen, thymus, and lymph nodes in immune response. [CO3, Understand, LOT]

Section B (20 marks)

23. Analyze the endocrine system and evaluate hormonal regulation and coordination in the human body. [CO3, Analyze, HOT]
24. Design a comprehensive explanation of hormone mechanisms and endocrine disorders. [CO3, Create, HOT]

UNIT IV

Section A (10 marks)

25. Define the reproductive system and explain its role in reproduction and continuation of species. [CO4, Remember, LOT]
26. Describe male reproductive organs and their functions including testes, vas deferens, and prostate gland. [CO4, Understand, LOT]
27. Explain the process of spermatogenesis and factors affecting sperm production. [CO4, Understand, LOT]
28. Describe the female reproductive system including ovaries, uterus, and fallopian tubes. [CO4, Understand, LOT]
29. Explain the menstrual cycle and hormonal regulation of ovulation. [CO4, Understand, LOT]
30. Analyze hormonal regulation in reproduction including roles of estrogen, progesterone, and testosterone. [CO4, Analyze, HOT]

Section B (20 marks)

31. Evaluate reproductive health issues and suggest preventive and awareness strategies. [CO4, Evaluate, HOT]

32. Design a detailed explanation of fertilization, embryonic development, and pregnancy. [CO4, Create, HOT]

UNIT V
Section A (10 marks)

33. Analyze common skin disorders and causes of abnormal skin color changes. [CO5, Analyze, HOT]
34. Define nutrition and explain different types of nutrients such as carbohydrates, proteins, fats, vitamins, and minerals. [CO5, Remember, LOT]
35. Describe the anatomy and function of the eye including retina, lens, and optic nerve. [CO5, Understand, LOT]
36. Explain the structure and function of the ear in hearing and balance. [CO5, Understand, LOT]
37. Describe the anatomy of nose and tongue and their roles in smell and taste perception. [CO5, Understand, LOT]
38. Explain the structure and layers of skin along with its protective functions. [CO5, Understand, LOT]

Section B (20 marks)

39. Analyze the structure and functions of sense organs and evaluate their coordination in maintaining body balance and perception. [CO5, Analyze, HOT]
40. Analyze skin structure and evaluate its role in protection, temperature regulation, and sensation. [CO5, Analyze, HOT]

Summary Sheet

CO Wise

CO	Q. No	Marks
CO1	1,2,3,4,5,6,7,8	100
CO2	9,10,11,12,13,14,15,16	100
CO3	17,18,19,20,21,22,23,24	100
CO4	25,26,27,28,29,30,31,32	100
CO5	33,34,35,36,37,38,39,40	100
Total		500

Unit Wise

Unit	Q. No	Marks
Unit 1	1,2,3,4,5,6,7,8	100
Unit 2	9,10,11,12,13,14,15,16	100
Unit 3	17,18,19,20,21,22,23,24	100
Unit 4	25,26,27,28,29,30,31,32	100
Unit 5	33,34,35,36,37,38,39,40	100
Total		500

Blooms Taxonomy Level (BTL) Wise

BTL	Q. No	Marks
LOT	1,2,3,4,5,9,10,11,12,13,18,19,20,21,22,25,26,27,28,29,34,35,36,37,38	250
HOT	6,7,8,14,15,16,17,23,24,30,31,32,33,39,40	250
Total		500

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Disclaimer: -This is a Practice set. The Question in End term examination will differ from the Practice set. This Practice set is meant for practice only.