

**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY, ODISHA, GUNUPUR
(GIET UNIVERSITY)**



B.Sc. Nursing (Third Semester) Regular/Supplementary Examinations, March – 2026
**ANAT105 & PHYS 110 – Applied Anatomy & Applied
Physiology**

Time: 3 hrs

Maximum: 75 Marks

The figures in the right hand margin indicate marks.

Section – A Anatomy (38 Marks)

PART – A: (Multiple Choice Questions)

(7 x 1=7 Marks)

Q. 1 Answer ALL questions

- | | |
|--|--|
| <p>a. The number of cervical vertebrae is</p> <p>(i) 3</p> <p>(iii) 12</p> | <p>(ii) 7</p> <p>(iv) 8</p> |
| <p>b. The largest lymphatic organ is</p> <p>(i) Thymus</p> <p>(iii) Bone Marrow</p> | <p>(ii) Spleen</p> <p>(iv) Appendix</p> |
| <p>c. The auditory ossicles are located in</p> <p>(i) Inner ear</p> <p>(iii) External ear</p> | <p>(ii) Middle ear</p> <p>(iv) Cochlea</p> |
| <p>d. The largest cartilage in the larynx is</p> <p>(i) Thyroid cartilage</p> <p>(iii) Arytenoid cartilage</p> | <p>(ii) Cricoid cartilage</p> <p>(iv) Epiglottis</p> |
| <p>e. The part of the brain controlling balance is</p> <p>(i) Cerebrum</p> <p>(iii) Medulla</p> | <p>(ii) Cerebellum</p> <p>(iv) Pons</p> |
| <p>f. The uterus is normally</p> <p>(i) Anteverted</p> <p>(iii) Horizontal</p> | <p>(ii) Retroverted</p> <p>(iv) Vertical</p> |

PART – B: (Very Short Answer Questions)

(3 x 2=6 Marks)

Q.2. Answer ANY THREE questions

- a. Name the five layers of the Skin.
- b. What is the difference between white matter and grey matter?
- c. What are Sinuses?
- d. What are lymph nodes?

PART – C: (Short Answer Questions)

(3 x 5= 15 Marks)

Q.3. Answer ANY THREE questions

- a. Describe the structure of Pituitary gland
- b. Write the structural difference between arteries and veins
- c. Describe the structure of ear
- d. Describe the body cavities and their organs

PART – D: (Long Answer Questions)

(10 x 1= 10 Marks)

Answer ALL questions

Marks

- | | |
|---|----|
| 4.a. Describe different types joints with structure | 10 |
| OR | |
| b. Explain the anatomy of the brain in detail | 10 |

Section - B : Physiology (37 Marks)

PART – E: (Multiple Choice Questions)

(6 x 1 = 6 Marks)

Q. 5 Answer ALL questions

- a. Diffusion is movement of molecules from
 - (i) Low concentration to high concentration
 - (ii) High concentration to low concentration
 - (iii) Equal concentration
 - (iv) Against concentration
- b. Cardiac output is
 - (i) Heart rate × stroke volume
 - (ii) Stroke volume × BP
 - (iii) HR × BP
 - (iv) BP × resistance
- c. The respiratory centre is located in
 - (i) Cerebrum
 - (ii) Cerebellum
 - (iii) Medulla oblongata
 - (iv) Thalamus
- d. The hormone insulin is secreted by
 - (i) Alpha cells
 - (ii) Beta cells
 - (iii) Gamma cells
 - (iv) Delta cells
- e. Myelin sheath helps for
 - (i) slow conduction
 - (ii) Fast conduction
 - (iii) No conduction
 - (iv) Irregular conduction
- f. The hormone responsible for ovulation is
 - (i) FSH
 - (ii) LH
 - (iii) Estrogens
 - (iv) Progesterone
- g. The main digestive enzyme of saliva is
 - (i) Pepsin
 - (ii) Amylase
 - (iii) Lipase
 - (iv) Trypsinase

PART – F: (Very Short Answer Questions)

(3 x 2 = 6 Marks)

Q.6. Answer ANY THREE questions

- a. What is membrane potential and action potential
- b. Define vital capacity and tidal volume
- c. What is Amenorrhoea?
- d. What is diabetes mellitus and diabetes Insipidus and responsible hormones

PART – G: (Short Answer Questions)

(3 x 5 = 15 Marks)

Q.7. Answer ANY THREE questions

- a. Write about oogenesis
- b. Explain GFR
- c. What is cardiac cycle?
- d. Write a short note on physiology of respiration

PART – H: (Long Answer Questions)

(10 x 1 = 10 Marks)

Answer ALL questions

Marks

- 8.a. Define Mitosis and Meiosis 2
- b. Write different stages in Mitosis and Meiosis 8
- (OR)**
- c. List out the Endocrine glands 2
- d. Write the location and few functions of all Endocrine glands 8

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