



Maharashtra University of Health Science Nashik
Mangaon Shikshan Prasarak Mandal's
Shrimati Geeta Dattatray Tatkare College of Nursing
Mangaon – Raigad 402 104



ACADEMIC YEAR 2025-2026
First Semester B.Sc. Nursing
SESSIONAL II EXAMINATION

Duration – 3hrs

Total Marks - 75

DATE: - 25.02.2026

APPLIED ANATOMY AND APPLIED PHYSIOLOGY

Instructions

1. All questions are compulsory
2. The number to the right indicates full marks
3. Draw diagrams wherever necessary
4. Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfairness means

SECTION – A

1) Multiple Choice Questions

[13X1=13]

1. The largest bone in the human body is:
a) Tibia
b) Humerus
c) Femur
d) Fibula
2. The functional unit of the kidney is:
a) Neuron
b) Nephron
c) Alveolus
d) Sarcomere
3. The number of chambers in the human heart is:
a) 2
b) 3
c) 4
d) 5
4. The largest lobe of the brain is:
a) Temporal lobe
b) Frontal lobe
c) Parietal lobe
d) Occipital lobe
5. The bone forming the forehead is:
a) Parietal bone
b) Occipital bone
c) Frontal bone
d) Temporal bone
6. The structural unit of muscle is:
a) Neuron
b) Sarcomere
c) Nephron
d) Osteon
7. The part of the small intestine where maximum absorption occurs is:
a) Duodenum
b) Jejunum
c) Ileum
d) Cecum

8. Normal resting heart rate in adults is:
- a) 40–60 beats/min
 - b) 60–100 beats/min
 - c) 100–120 beats/min
 - d) 120–140 beats/min
9. The hormone responsible for lowering blood glucose level is:
- a) Glucagon
 - b) Insulin
 - c) Thyroxine
 - d) Adrenaline
10. The normal pH of blood is:
- a) 6.8–7.0
 - b) 7.0–7.2
 - c) 7.35–7.45
 - d) 7.5–7.8
11. Oxygen is transported in blood mainly by:
- a) Plasma
 - b) Platelets
 - c) Hemoglobin
 - d) WBCs
12. The pacemaker of the heart is:
- a) AV node
 - b) Bundle of His
 - c) SA node
 - d) Purkinje fibers
13. The normal urine output in adults per day is approximately:
- a) 200–400 ml
 - b) 500–800 ml
 - c) 1000–2000 ml
 - d) 3000–4000 ml

APPLIED ANATOMY

SECTION – B

2) Long Answer Questions (Solve any 1):

[1X10=10]

- a) Explain Kidney under following headings
 - i. Gross and microscopic structure of kidney
 - ii. Blood supply
 - iii. Renal colic
- b) Describe lungs under the following headings
 - i. Gross structure
 - ii. Blood supply and lymphatic drainage
 - iii. Occupational hazards affecting the lungs

3) Short Notes (Solve any 3):

[3X5=15]

- a) Draw the structure of the Skin and explain the Dermis layer.
- b) Composition and function of Salivary Glands.
- c) Draw a labelled diagram of the pelvic girdle and describe it.
- d) Explain the structure of the Neuron.

4) Short Answer Questions (Solve any 3):

[3X2=6]

- a) Enumerate the parts of the small intestine.
- b) List the intrinsic muscles of the eyeball.
- c) Enumerate the types of Neuroglia.
- d) Classify the fontanels of the skull.

APPLIED PHYSIOLOGY

SECTION – C

5) Long Answer Questions (Solve any 1):

[1X10=10]

- a) Define immunity and classify it. Explain factors affecting Immunity.
- b) Define the Cardiac cycle and describe the various events of the cardiac cycle. Enlist the factors affecting the cardiac cycle.

6) Short Notes (Solve any 3):

[3X5=15]

- a) Explain the Blood Pressure regulation by the kidney with a flow chart.
- b) Explain the blood clotting mechanism.
- c) Describe the composition of Lymph.
- d) Illustrate the factors affecting Heart rate.

7) Short Answer Questions (Solve any 3):

[3X2=6]

- a) Define total lung capacity.
- b) List any four functions of Cerebrospinal fluid.
- c) Enumerate any four functions of Liver.
- d) List the important sources of Carbohydrates.

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