



13789



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – B.Optomety-2022/B.Optomety-2023/B.Optomety-
2024/B.Optomety-2025

Course Name – General Human Physiology

Course Code - BOPTOC102

(Semester I)

Library
Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Choose the correct statement about red blood cells (RBCs)
- | | |
|-------------------------------|---|
| a) RBCs contain hemoglobin | b) Mature RBCs lack cell membrane. |
| c) Mature RBCs lack ribosomes | d) The lifespan of RBCs is about 30 days. |
- (ii) Choose the correct structure called as secondary pacemaker of Heart
- | | |
|-------------------|------------------|
| a) SA node | b) AV node |
| c) Purkinje fiber | d) Bundle of His |
- (iii) Choose the hormone that initiates the ovulation cycle
- | | |
|------------------------|-------------|
| a) Luteinizing Hormone | b) Estrogen |
| c) Progesterone | d) FSH |
- (iv) State the correct term of onset of the reproductive age in females
- | | |
|-----------------|-------------|
| a) Menstruation | b) Menarche |
| c) Menopause | d) Puberty |
- (v) Choose the correct term . After deep inspiration maximum expiration of lungs is called _____
- | | |
|-------------------------|---------------------------------|
| a) Vital capacity | b) Total lung capacity |
| c) Inspiratory capacity | d) Functional residual capacity |
- (vi) Name the process called when oxygen and carbon dioxide are exchanged between the blood and body tissues at the cellular level:
- | | |
|-------------------------|--------------------------|
| a) External Respiration | b) Internal Respiration |
| c) Cellular Respiration | d) Pulmonary Respiration |
- (vii) In the human body, the blood is observed to enter the aorta of the circulatory system from the
- | | |
|-------------------|--------------------|
| a) Left Atrium | b) Right Atrium |
| c) Left Ventricle | d) Right Ventricle |
- (viii) Name the following that controls body temperature, sleep, and appetite:

- a) Thymus
c) Hypothalamus
- b) Thalamus
d) Thyroid Gland
- (ix) Choose the hormone that is produced by the ovaries and is responsible for the development of female secondary sexual characteristics:
- a) Testosterone
c) Estrogen
- b) Progesterone
d) Androgens
- (x) Recall the correct statement about function of platelets:
- a) Carries Oxygen
c) Produce antibodies
- b) Helps in Blood Clotting
d) Carries Nutrients
- (xi) The opening at the lower end of the uterus is recognized as:
- a) Cervix
c) Coccyx
- b) Fallopian tube
d) Vagina
- (xii) Choose the correct vertebral formula of vertebral column of human being.
- a) C7 Th13 L4 S5 Co4
c) C7 Th12 L5 S5 Co4
- b) C7 Th12 L5 S4 Co3
d) C7 Th13 L5 S5 Co4
- (xiii) Choose the cell organelle that synthesizes lipids
- a) SER
c) RER
- b) Nucleus
d) Mitochondria
- (xiv) Select the correct value in which Dyspnea takes place
- a) > 80%
c) < 60%
- b) < 70%
d) 98%
- (xv) Select the muscle important for respiration:
- a) Diaphragm
c) Brachioradialis
- b) Deltoid
d) Sternocleidomastoid

Group-B

(Short Answer Type Questions)

3 x 5=15

2. State the major types of white blood cells and their respective functions (3)
3. Describe the term chyme. (3)
4. Describe the structure of the skin and its main layers. (3)
5. Define the terms- a. Dyspnoea, b. asphyxia, c. cyanosis. (3)
6. Distinguish the following terms- a. Mean blood pressure, b. Pulse pressure, c. Venous pressure? (3)

OR

Distinguish Asthma and COPD.

(3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Discuss the Protein digestion process (5)
8. Classify the types of epithelial tissues along with their functions (5)
9. Explain the factors affecting GFR (5)
10. Illustrate the types of hypoxia (5)
11. Describe the structure of the Nephron. (5)
12. Explain the conductive tissues in the heart (5)

OR

Elaborate the hormonal changes that occur during each phase of the menstrual cycle.

(5)
