



15189



BRAINWARE UNIVERSITY

Term End Examination 2025-2026
Programme – DMLT-2023/DMLT-2024/DMLT-2025
Course Name – Human Anatomy and Physiology
Course Code - DMLT101
(Semester I)

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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) Report the organelle that is responsible for detoxifying harmful substances in the cell:
- a) Nucleus
b) Peroxisome
c) Mitochondria
d) Chloroplast
- (ii) Identify which of the following hormones is responsible for increasing body temperature in response to stress or cold exposure?
- a) Cortisol
b) Insulin
c) Thyroxin
d) Estrogen
- (iii) Select the gland responsible for producing Insulin:
- a) Thyroid
b) Pancreas
c) Adrenal
d) Pituitary
- (iv) Select the primary function of the circulatory system:
- a) To regulate body temperature
b) To digest food
c) To transport oxygen and nutrients to cells and remove waste products
d) To produce hormones
- (v) Identify the chamber of the heart that pumps oxygenated blood to the rest of the body:
- a) Right atrium
b) Right ventricle
c) Left atrium
d) Left ventricle
- (vi) Select the correct location of Meissner's plexus -
- a) Submucosa layer of the GIT.
b) Muscularis externa layer of the GIT.
c) Mucosa layer of the GIT.
d) Serosa layer of the GIT.
- (vii) Predict the role of hydrochloric acid in the stomach-
- a) Breaking down carbohydrates
b) Killing harmful bacteria
c) Producing bile
d) Absorbing nutrients
- (viii) Identify the macronutrients not broken in the digestive system .
- a) Protein
b) Fat

- c) Fiber
 d) Carbohydrate
- (ix) Select the organ responsible for producing and releasing digestive enzymes into the small intestine.
 a) Liver
 b) Gall Bladder
 c) Pancreas
 d) Appendix
- (x) Name the lung which has three lobes (superior, middle, and inferior).
 a) Left lung
 b) Right lung
 c) Both of these
 d) None of these
- (xi) Name the hormone that is released during childbirth and helps with uterine contractions and milk ejection during breastfeeding:
 a) Oxytocin
 b) Thyroxine
 c) Aldosterone
 d) Prolactin
- (xii) Choose the correct option of the functional unit of the kidney responsible for filtering blood -
 a) Nephron
 b) ureter
 c) glomerulus
 d) loop of Henlee
- (xiii) Select the hormone released by the kidneys to regulate blood pressure and red blood cell production.
 a) Insulin
 b) Aldosterone
 c) ADH
 d) Erythropoietin
- (xiv) Choose the correct option regarding this statement. The process of reabsorption in the nephron involves returning important substances, such as water and nutrients, back into:
 a) Glomerulus
 b) Renal pelvis
 c) Collecting duct
 d) Blood stream
- (xv) Name the part of the renal tubule is responsible for fine-tuning the concentration of urine by reabsorbing water and ions.
 a) PCT
 b) DCT
 c) Loop of Henlee
 d) Collecting duct

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Define Spermiogenesis. (3)
3. Define the functions of the corpus luteum. (3)
4. Differentiate between anatomy & physiology. (3)
5. Write the composition of semen. (3)
6. Conclude the role of IUD's in fertility control. (3)

OR

Analyze the composition of blood. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe the organs involved in digestion of food along with their functions. (5)
8. Summarize the lung capacities with their values. (5)
9. Classify the actions of heart. (5)
10. Write the name of pituitary hormones along with their functions. (5)
11. Write about the organs involved in male reproductive system. (5)
12. Categorize the types of epithelial tissues with reference to the location where they are found in human body. (5)

OR

Organize the names of the layers of the epidermis from outside to inside and briefly mention each.

(5)

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