



BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – DMLT-2021/DMLT-2022

Course Name – Human Anatomy and Physiology

Course Code - DMLT101

(Semester I)

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) Define the term cell was given by
- | | |
|-----------------|------------|
| a) Robert Hooke | b) Tatum |
| c) Schwann | d) De Bary |
- (ii) Identify the perichondrium
- | | |
|-------------------------------------|--|
| a) Yellow elastic connective tissue | b) Loose areolar connective tissue |
| c) Reticular connective tissue | d) Irregular white fibrous connective tissue |
- (iii) Explain articular surface of joints
- | | |
|-----------------------------------|---------------------------------------|
| a) Is formed of hyaline cartilage | b) Is rich in elastic fibers |
| c) Is rich in collagen type I | d) Gets its nutrition from periosteum |
- (iv) Select Cartilage and bone are types of
- | | |
|------------------------|----------------------|
| a) Muscular tissue | b) Connective tissue |
| c) Meristematic tissue | d) Epithelial tissue |
- (v) State Haversian canals occur in
- | | |
|------------|-------------|
| a) Pubis | b) Clavicle |
| c) Scapula | d) Humerus |
- (vi) Describe appearance of Plasma is
- | | |
|--------------------|--------------------|
| a) Red in color | b) Yellow in color |
| c) Like leucocytes | d) Like leucocytes |
- (vii) Choose of the following statements about red blood cells (RBCs) is correct?
- | | |
|-------------------------------|---|
| a) RBCs contain hemoglobin | b) Mature RBCs lack cell membrane. |
| c) Mature RBCs lack ribosomes | d) The lifespan of RBCs is about 30 days. |
- (viii) Choose the term _____ refers to production of blood cells in the _____ of adults
- | | |
|-----------------------------|-------------------------------|
| a) Hemolysis; spleen | b) Hemostasis; liver |
| c) Homeostasis; bone marrow | d) Hematopoiesis; bone marrow |
- (ix) State serum
- | | |
|---|---|
| a) Whole blood sample from which all cells are removed. | b) Plasma from which fibrinogen and clotting factors are removed. |
|---|---|

- c) The portion of the blood that is composed of red blood cells. d) Plasma from which only albumin and globulins are removed.
- (x) Choose the normal pH of blood is
- a) 2.2 b) 5.2
c) 7.4 d) 10.4
- (xi) Choose yellow color of urine is due to
- a) Urochrome b) Urea
c) Bilirubin d) Uric acid
- (xii) Choose the normal value of GFR is-
- a) 180 ml/Day b) 125 ml/min
c) 140 ml/min d) 100 ml/min
- (xiii) State the blood from glomerulus is carried away by
- a) Afferent arteriole b) Efferent arteriole
c) Renal vein d) Peritubular capillary
- (xiv) State, as a rule, the only special sense not fully functional at birth is
- a) taste b) smell
c) vision d) audition
- (xv) Choose which of the following would NOT be found in the outer ear?
- a) hair b) sebaceous glands
c) pharyngotympanic tube d) modified sweat glands

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Illustrate the composition of blood (3)
3. Develop the concept on Hypoxia. Mention the types. (3)
4. Define the terms- a. Dyspnoea, b. asphyxia, c. cyanosis (3)
5. Differentiate skeletal, smooth and cardiac muscle. (3)
6. State the abnormal constituents of urine. (3)

OR

Summarized the functions of PTH in body? (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. State how O₂ gas transports from lungs to tissue in our body with suitable diagram. (5)
8. Describe the EM structure of Plasma membrane with diagram. (5)
9. Differentiate between spermatogenesis and oogenesis. (5)
10. Discuss the process of Protein digestion in elementary canal. (5)
11. Describe the basic structural properties of Pulmonary circulation. (5)
12. Discuss the important changes take place in Ovary and Uterus during menstrual cycle. (5)

OR

Describe the role of hormones in regulation of menstrual cycle. (5)
