



## **BRAINWARE UNIVERSITY**

**Term End Examination 2022** Programme - B.Sc.(MLT)-2022 Course Name – Human Physiology **Course Code - BMLTC102** (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) State the connective tissue that connects muscle to bone is called a) Ligament b) Tendon c) Nervous tissue d) All of the above (iii) State Haversian canals occur in a) Pubis b) Clavicle c) Scapula d) Humerus (iv) Describe appearance of Plasma is a) Red in color b) Yellow in color c) Like leucocytes d) Like leucocytes (v) Select the antigens for ABO and Rh blood groups are present on a) Plasma b) White blood cells

c) Red blood cells d) Platelets (vi) State Oxygen and hemoglobin bind in a reversible manner to form\_

a) Carboxyhemoglobin b) Oxyhemoglobin d) BPG c) Methoglobin

(vii) State when a person is dehydrated, hypotonic fluid will be found in the:

a) glomerular filtrate b) proximal tubule

c) loop of Henle d) distal convoluted tubule

(viii) Choose the normal value of GFR is-

a) 180 ml/Day b) 125 ml/min c) 140 ml/min d) 100 ml/min

(ix) State the blood from glomerulus is carried away by

a) Afferent arteriole b) Efferent arteriole

c) Renal vein d) Peritubular capillary

(x) Define the proximal convoluted tubule is lined by

<ul><li>a) Simple cuboidal epithelium</li><li>c) Stratified columnar epithelium</li></ul>	<ul><li>b) Simple cuboidal brush border epith</li><li>d) None of these</li></ul>	elium
(xi) State the condition where urea accumulates in blood is		
<ul><li>a) Glycosuria</li><li>c) Acidosis</li><li>(xii) Choose after deep inspiration maximum expira</li></ul>	b) Uremia d) Ketonuria tion of lungs is called	
<ul><li>a) Vital capacity</li><li>c) Inspiratory capacity</li><li>(xiii) Choose from the following: Ciliary glands are m</li></ul>	b) Total lung capacity d) Functional residual capacity nodified	
<ul><li>a) sweat glands</li><li>c) salivary glands</li><li>(xiv) State, as a rule, the only special sense not fully</li></ul>	<ul><li>b) sebaceous glands</li><li>d) lacrimal glands</li><li>functional at birth is</li></ul>	
<ul><li>a) taste</li><li>c) vision</li><li>(xv) Choose which of the following would NOT be for</li></ul>	b) smell d) audition ound in the outer ear?	
<ul><li>a) hair</li><li>c) pharyngotympanic tube</li></ul>	<ul><li>b) sebaceous glands</li><li>d) modified sweat glands</li></ul>	
Group-B		
(Short Answer Type Questions) 3 x 5=15		
<ol> <li>Identify the role of FSH and LH in Ovulation.</li> <li>Differentiate endocytosis and exocytosis.</li> <li>Describe the function of Plasma membrane.</li> <li>Develop the concept on Hypoxia? Mention the types.</li> <li>Illustrate the composition of blood</li> </ol>		(3) (3) (3) (3)
OR		(3)
Explain Phagocytosis and Pinocytosis		(3)
Group-C		
(Long Answer Ty	pe Questions)	5 x 6=30
<ol> <li>Describe the EM structure of Mitochondria with diagram.</li> <li>Describe the process of Protein digestion in elementary canal.</li> <li>Describe the role PTH and Thyrocalcitonin in regulation Calcium homeostasis</li> <li>State how O2 gas transports from lungs to tissue in our body with suitable diagram.</li> <li>Describe the role of hormones in regulation of menstrual cycle.</li> <li>Propose the mechanism of respiratory process with suitable diagram.</li> </ol> OR		(5) (5) (5) (5) (5) (5)
Discuss the important changes take place in Ova	ry and Uterus during menstrual cycle.	(5)

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