# PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

# MSc DEGREE EXAMINATION MAY 2024

(First Semester)

# Branch - CLINICAL NUTRITION AND DIETETICS

## PHYSIOLOGY IN HEALTH AND DISEASE

Time: Three Hours

Maximum: 75 Marks

#### SECTION-A (10 Marks)

Answer ALL questions

		ALL questions carry EQUAL marks (10 ×	1 = 10)	
Module No.	Question No.	Question	K Level	СО
1	1	Which organelle contains enzymes for intracellular digestion?  a) Nucleus b) Ribosome c) Lysosome d) Chloroplast	K1	CO1
	2	Interpret the cells that are responsible for the production of antibodies.  a) Red blood cells b) T cells c) B cells d) Platelets	K2	CO1
2 .	3	What is the primary pathophysiological mechanism underlying atherosclerosis?  a) Increased blood viscosity b) Formation of blood clots c) Accumulation of plaque in arteries d) Weakening of the heart muscle	K1	CO2
	4	Show the condition that is characterized by the permanent enlargement of airspaces in the lungs, destruction of alveolar walls, and decreased lung elasticity.  a) Pneumonia b) Asthma c) Emphysema d) Bronchitis	K2	CO2
3	5	Which hormone is produced by the small intestine and stimulates the pancreas to release bicarbonate to neutralize stomach acid?  a) Insulin b) Glucagon c) Secretin d) Leptin	K1	CO3
	6	Show which renal disorder is characterized by the presence of blood in the urine, often due to inflammation or injury to the urinary tract or kidneys.  a) Pyelonephritis b) Hematuria c) Cystitis d) Urethritis	K2	CO3
4	7	Which hormone is responsible for the development of secondary sexual characteristics in females, such as breast development and regulation of the menstrual cycle?  a) Progesterone b) Estrogen c) Testosterone d) Prolactin	5	CO4
	8	Show which bone in the human body is often referred to as the "collarbone".  a) Humerus b) Radius c) Ulna d) Clavicle	K2	CO4

#### 22CNP102N/ 22CNP102

Cont...

5	9	Which part of the brain is responsible for regulating vital functions such as breathing and heart rate?  a) Cerebrum b) Cerebellum c) Medulla oblongata d) Thalamus	K1	CO5
	10	Infer the term for the sense of smell.  a) Gustation b) Olfaction c) Audition d) Tactile perception	K2	CO5

#### SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks  $(5 \times 7 = 35)$ 

	ALL questions carry EQUAL Marks (3 \( \) 33)				
Module No.	Question No.	Question	K Level	СО	
1	11.a.	List and write about the functions of cell.			
		(OR)		CO1	
	11.b.	Compare and contrast between cell mediated and humoral immunity.	K4	00.	
		Simplify and write about the origin and	K4	CO2	
	12.a.	transmission of impulse.			
2		(OR)			
	12.b.	Examine about the mechanism of respiration.			
	13.9	Explain the sources and action of gastrointestinal	K5	CO3	
3		hormone.			
3	(OR)				
	13.b.	Explain and write a note on dialysis.			
	14.a.	Interpret the structure and function of female	K5	CO4	
4	14.4.	reproductive system.			
4	(OR)		-		
	14.b.	Explain the structure and types of muscles.	-		
	15.a.	Elaborate on epilepsy and seizures.	-		
5	(OR)		- K6	CO5	
	15.b.	Discuss about the principle and interpretation of EEG.			

### SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

 $(3 \times 10 = 30)$ 

Module No.	Question No.	Question	K Level	СО
1	16	Analyze the pathophysiology of cancer.	K4	CO1
2	17	Simply and write about the alteration in pulmonary function.	K4	CO2
3	18	Explain in detail about the pathophysiology of renal diseases.	K5	CO3
4	19	Evaluate and write about the disorders of muscular system.	K5	CO4
5	20	Design the structure and explain the mechanism of hearing.	K6	CO5