

SNS COLLEGE OF PHYSIOTHERAPY

Affiliated by the Tamil Nadu Dr. M. G. R. Medical University, Chennai.
Saravanampatti Post, Coimbatore – 641 035.

PHYSIOLOGY

QUESTION BANK

Serial Number	Types of Question	Questions	Mapping to	Bloom's Taxonomy
1	15 Marks (Essay)	Describe the structure of the nephron and explain the process of urine formation, including glomerular filtration, tubular reabsorption, and secretion.	TNMGRMU-2022	Understand
2	15 Marks (Essay)	Discuss the role of the kidneys in maintaining acid-base balance in the body, including the mechanisms involved in bicarbonate reabsorption and hydrogen ion secretion.	Manipal-2021	Analyze
3	15 Marks (Essay)	Explain the renin-angiotensin-aldosterone system (RAAS) and its significance in regulating blood pressure and fluid balance.	AIIMS-2020	Apply
4	15 Marks (Essay)	Describe the countercurrent multiplier system in the loop of Henle and how it contributes to the concentration of urine.	JIPMER-2019	Understand
5	15 Marks (Essay)	Elaborate on the hormonal regulation of kidney function, focusing on antidiuretic hormone (ADH) and aldosterone.	TNMGRMU-2023	Evaluate
6	15 Marks (Essay)	Discuss the physiological mechanisms involved in micturition and the neural control of the bladder.	Manipal-2020	Analyze
7	15 Marks (Essay)	Explain the concept of glomerular filtration rate (GFR) and the factors that influence it, including clinical implications.	AIIMS-2021	Apply
8	15 Marks (Essay)	Describe the role of the kidneys in erythropoiesis and vitamin D activation, and their relevance to overall body homeostasis.	JIPMER-2022	Understand
9	15 Marks (Essay)	Analyze the differences between cortical and juxtamedullary nephrons and their functional significance in urine concentration.	TNMGRMU-2021	Analyze
10	15 Marks (Essay)	Evaluate the impact of diuretics on renal function and fluid balance,	Manipal-2019	Evaluate

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Serial Number	Types of Question	Questions	Mapping to	Bloom's Taxonomy
		including classification and mechanisms of action.		
11	5 Marks (Short Notes)	Write short notes on the functions of the juxtaglomerular apparatus.	AIIMS-2022	Remember
12	5 Marks (Short Notes)	Explain the mechanism of tubular reabsorption in the proximal convoluted tubule.	JIPMER-2020	Understand
13	5 Marks (Short Notes)	Describe the role of atrial natriuretic peptide (ANP) in renal excretion.	TNMGRMU-2020	Apply
14	5 Marks (Short Notes)	What is clearance in renal physiology? Give an example.	Manipal-2022	Remember
15	5 Marks (Short Notes)	Discuss the acid-base disturbances handled by the kidneys.	AIIMS-2019	Analyze
16	5 Marks (Short Notes)	Explain the micturition reflex.	JIPMER-2021	Understand
17	5 Marks (Short Notes)	Describe the composition of glomerular filtrate.	TNMGRMU-2019	Remember
18	5 Marks (Short Notes)	What are the effects of aldosterone on the distal tubule?	Manipal-2023	Apply
19	5 Marks (Short Notes)	Outline the countercurrent exchange in the vasa recta.	AIIMS-2023	Understand
20	5 Marks (Short Notes)	Discuss the regulation of water balance by ADH.	JIPMER-2018	Analyze
21	2 Marks (Short Answers)	Define glomerular filtration rate (GFR).	TNMGRMU-2022	Remember
22	2 Marks (Short Answers)	What is the function of the loop of Henle?	Manipal-2021	Remember
23	2 Marks (Short Answers)	Name two hormones that regulate kidney function.	AIIMS-2020	Remember
24	2 Marks (Short Answers)	What is obligatory water reabsorption?	JIPMER-2019	Understand

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Serial Number	Types of Question	Questions	Mapping to	Bloom's Taxonomy
25	2 Marks (Short Answers)	Define renal threshold.	TNMGRMU-2023	Remember
26	2 Marks (Short Answers)	What is the role of carbonic anhydrase in the kidney?	Manipal-2020	Understand
27	2 Marks (Short Answers)	Name the parts of the nephron.	AIIMS-2021	Remember
28	2 Marks (Short Answers)	What is micturition?	JIPMER-2022	Remember
29	2 Marks (Short Answers)	Define osmolality in the context of urine.	TNMGRMU-2021	Understand
30	2 Marks (Short Answers)	What is the significance of renin?	Manipal-2019	Understand