



WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 6th Semester Examination, 2021

PHYACOR14T-PHYSIOLOGY (CC14)

FORMATION AND EXCRETION OF URINE

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.*

Answer any five questions from the following

8×5 =40

1. (a) Differentiate between cortical and juxtamedullary nephrons. 2+1+5
(b) What is Glomerular Filtration Rate (GFR)? Describe the factors affecting GFR.
2. (a) Write a short note on Juxtaglomerular Apparatus along with a neat diagram. 6+2
(b) State the function of Erythropoietin.
3. (a) Explain the mechanism of autoregulation of renal blood flow. 4+4
(b) What are the peculiarities of renal circulation?
4. (a) What is tubular load? 2+1+2+3
(b) What is the tubular maximum for glucose?
(c) What is plasma clearance of a substance? What is inulin clearance test?
5. Discuss, with a suitable diagram, the Counter Current Multiplier System. What is its significance? 7+1
6. (a) State the abnormal constituents of urine. 4+1+3
(b) What is Atrial Natriuretic factor? State its functions.
7. Discuss the role of Kidney in the maintenance of acid-base balance in the body. 6+2
What is metabolic acidosis?
8. (a) Explain the process of micturition, with special reference to micturition reflex. 6+2
(b) What is atonic bladder?

N.B. : Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.

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