



'সমানো মন্ত্র: সমিতি: সমানী'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 6th Semester Examination, 2022

CC14-PHYSIOLOGY

FORMATION AND EXCRETION OF URINE

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

GROUP-A

1. Answer any *five* questions from the following: 1×5 = 5
- (a) Define glomerular filtration rate.
 - (b) What are low threshold substances?
 - (c) What is the prime role of cortical nephrons?
 - (d) What are the parts of juxtaglomerular apparatus?
 - (e) How much of blood is supplied to both the kidneys?
 - (f) What is the physiological capacity of urinary bladder?
 - (g) Name the substances reabsorbed in loop of Henle.
 - (h) What is TmG?

GROUP-B

Answer any *three* questions from the following 5×3 = 15

- 2. Enumerate the factors affecting GFR. 5
- 3. What is micturition reflex? How is micturition controlled? 1+4
- 4. State peculiarities of renal circulation. 5
- 5. Describe the functions of juxtaglomerular complex. 5
- 6. Briefly describe the various renal function tests. 5

GROUP-C

Answer any two questions from the following

10×2 = 20

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| 7. | Discuss the normal and abnormal constituents of urine. What are the factors affecting Na ⁺ reabsorption? | 8+2 |
| 8. | Briefly explain the mechanism of the counter-current multiplier and exchanger system with suitable diagram. | 10 |
| 9. | Describe the mechanism of urine formation. | 10 |
| 10. | Write briefly the non-excretory functions of kidney. | 10 |

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