

B.Sc. 6th Semester (Honours) Examination, October 2020

Subject: PHYSIOLOGY

Course ID: 62512

Course Code: SH/PHY/602/C-14 (T)

Course Title: Formation and Excretion of Urine

Full Marks: 15

Time: 45 Minutes

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer all the questions.

UNIT I

1. Answer any three of the following questions: (1×3=3)
- (a) State the location and function of P cell.
 - (b) Differentiate between cortical and juxta-medullary nephrons.
 - (c) What is erythropoietin?
 - (d) Name any two abnormal constituents of urine.
 - (e) What is T_m ?
 - (f) State the significance of urea clearance test.
 - (g) Name any two diuretics.
 - (h) Give the physiological basis of high pressure in glomerular capillaries.

UNIT II

2. Answer any two of the following questions: (3×2=6)
- (a) State the non-excretory functions of kidney. 3
 - (b) Define dialysis? What do you mean by artificial kidney? 1+2=3
 - (c) State the peculiarities of renal circulation. 3
 - (d) What is Juxtaglomerular apparatus? Describe its role in regulating GFR. 1+2=3
 - (e) Describe briefly about the origin and functions of rennin angiotensin. 1+2=3
 - (f) Define micturation. Mention the name of nerve of 'filling' of urinary bladder. 2+1=3

UNIT III

3. Answer any one of the following questions: (6×1=6)

(a) Describe the role of nephron in the formation of urine. 6

(b) Describe the role of kidney in maintaining acid base balance. 6