

2018

CBCS

3rd Semester

PHYSIOLOGY

PAPER—C5T

(Honours)

Full Marks : 40

Time : 2 Hours

*The figures in the right-hand margin indicate full marks.*

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

*Illustrate the answers wherever necessary.*

***Circulating Body Fluids***

1. Answer any *five* questions :

5×2

(a) What are the hemopoietic stem cells?

(b) Differentiate plasma and serum.

- (c) What are the advantages of biconcave shape of red blood cells?
- (d) What is Arneth index?
- (e) Mention two main functions of platelets.
- (f) What is the role of vitamin B<sub>12</sub> and folic acid in erythropoiesis?
- (g) What is acquired immunity?
- (h) What is PCV? Mention its normal value.

2. Answer any four questions : 4×5

- (a) (i) What is clot lysis? How does it occur?  
 (ii) When is clot retraction delayed? 1+2+2
- (b) (i) Mention the major steps in coagulation.  
 (ii) What are physiological buffer systems present in blood? 3+2
- (c) (i) Write down the functions of lymphatic systems.  
 (ii) Name the important NPN substances present in plasma. 4+1

- (d) (i) What do you mean by osmotic fragility ?  
(ii) Why are venous red blood cells more fragile ?  
(iii) Name the virus which is involved in AIDS.

2+2+1

- (e) (i) How is erythropoiesis regulated by erythropoietin ?  
(ii) What is allergy ? What is the importance of skin prick test ?

3+(1+1)

- (f) (i) State the functions of plasma proteins.  
(ii) What is purpurae ?

4+1

3. Answer any one question : 1×10

- (a) (i) How is hemoglobin catabolised after destruction of red blood cells ?  
(ii) What are the conclusion drawn from Landsteiner's laws applicable only to ABO system in human blood ?  
(iii) What do you mean by autoimmune disease ?

4+4+2

- (b) (i) State the reactions involved in hemostasis.
- (ii) How is clotting of blood inside the vascular system of our body prevented?
- (iii) State the factors determining lymph flow.

3+3+4

---