



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 3rd Semester Examination, 2021-22

PHYACOR05T-PHYSIOLOGY (CC5)

CIRCULATING BODY FLUIDS

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.
All symbols are of usual significance.*

Answer any five questions from the following

8×5 = 40

1. (a) What is haemolytic disease of newborn? How it can be prevented? 2+1
(b) How does warfarin act as anticoagulant? 2
(c) What is MCV? How is it calculated? 1+2
2. (a) What do you mean by haematopoietic stem cell? 1
(b) State the role of erythropoietin in red cell formation. 3
(c) What is polycythemia? 2
(d) What is the difference between homeostasis and haemostasis? 2
3. (a) What are the advantages of the biconcave shape of RBC? 2
(b) Distinguish between innate and acquired immunity. 2
(c) Discuss briefly the biosynthesis of heme in our body. 4
4. (a) Discuss the role of calcium ion and phospholipid in the process of blood coagulation. 2+2
(b) What do you mean by thymus dependent and independent antigen? 1+1
(c) What are role of cytokines and colony stimulating factors in blood cell production? 1+1
5. (a) Describe the functions of lymph gland. 3
(b) Distinguish between alpha and beta thalassemia. 3
(c) What is chemotaxis? 2
6. (a) Discuss different types of anaemia with aetiology. 6
(b) What do you mean by edema and thrombocytopenia? 1+1

7. (a) Give an account on compounds of haemoglobin. 4
(b) What do you mean by Total Count (TC) and Differential Count (DC) of WBC? 1+1
(c) Write normal values of TC of RBC of adult male and female with correct unit. 1+1
8. (a) What is purpura? 2
(b) What is erythroblastosis foetalis? 2
(c) What is ESR? Mention its physiological significance. 1+1
(d) What is the difference between bleeding time and clotting time? 1+1

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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