

2020

PHYSIOLOGY — HONOURS

Paper : CC-5

Full Marks : 50

The figures in the margin indicate full marks.

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

1. Answer **any five** questions : 2×5
- (a) What is erythropoietin?
 - (b) How do you differentiate lymph gland and spleen histologically?
 - (c) Mention the difference between haemoglobin A and haemoglobin F.
 - (d) Mention any two causes of oedema.
 - (e) Name two disorders of blood clotting.
 - (f) What is lymph?
 - (g) Name any two causes of splenomegaly.
 - (h) What are the different steps of haemostasis?
2. Write short notes on **any two** of the following : 5×2
- (a) Blood group antigens
 - (b) Sickle-cell anaemia
 - (c) Fibrinolysis
 - (d) Hazards of blood transfusion.

Answer **any three** questions.

3. (a) Describe the characteristic features of the cells of different stages of erythropoiesis with suitable diagram.
- (b) Discuss the mechanism by which erythropoietin exerts its action on the erythroid precursor cells. 5+5
4. (a) Differentiate yellow and red bone marrow. What are procoagulants?
- (b) Discuss in detail the process of conversion of Fibrinogen to Fibrin catalyzed by thrombin. (2+2)+6

Please Turn Over

5. (a) What are plasma proteins? How do plasma proteins help in the maintenance of osmotic pressure?
(b) Discuss the functions of lymph. (2+4)+4
6. Briefly discuss the dye method of blood volume determination, mentioning the characteristics of the dye to be chosen. 8+2
7. (a) Define anticoagulants. Explain the action of any two anticoagulants.
(b) What do you mean by thrombosis and embolism? 2+4+(2+2)
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