

THE UNIVERSITY OF BURDWAN

B. Sc. 3rd Semester (Honours)

Examination, 2020 (CBCS)

SUBJECT: PHYSIOLOGY

Paper: CC-V

(CIRCULATING BODY FLUIDS)

Time: 2 Hours

Full Marks: 40

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.

Answer all *questions* as instructed

Examinees are instructed to submit the scanned
copies/photographs of their answerscripts within 30 minutes
after the completion of examination

Answer any **eight** questions:

5X8=40

1. "The proliferation and development of haematopoietic stem cells are controlled by a battery of cytokines " justify with schematic diagram. (5)
2. What is H substance and how blood group A and B antigens are synthesized from it? (5)
3. Mention the differences between adult and foetal haemoglobin. State why foetal haemoglobin has higher affinity to oxygen compared to that of adult haemoglobin?(5)
4. Illustrate the platelet activation and aggregation with schematic diagram. (5)
5. Draw schematic diagram of cell-based model (the sequence of events, initiation, amplification, and propagation) of blood coagulation. (5)
6. State briefly on thalassemia. (5)
7. State the role of erythropoietin and hypoxia-inducible factor in erythropoiesis. (5)
8. Briefly explain the heme–heme interactions for oxyhaemoglobin formation. (5)
9. Discuss in brief the role of osteoblast in bone formation. (5)
10. Write the histological structure of lymph gland with diagram. (5)

