INTERNAL EXAMINATION (SEMESTER III), 2022

Physiology Honours (PHYA)

Date: 13/12/2022

Time: 11 am-1 pm (2 hours)

 $(10 \times 1 = 10)$

Paper-CC5 (Physiology of Blood and Body fluids) Full marks: 10

Answer any 10 from the following:

- 1. State the difference between Hb A and Hb F.
- 2. What is plasmapheresis?
- 3. What is a pluripotent cell?
- 4. Mention one advantage of biconcave shape of RBC.
- 5. Mention the difference between A-antigen and B-antigen.
- 6. What is spectrin?
- 7. Mention the difference between red and yellow bone marrow.
- 8. What is thrombosis?
- 9. Why heme is tagged with globin?
- 10. What is a megakaryocyte?
- 11. Name any two vitamin K antagonists.
- 12. Mention any one histological difference between lymph gland and spleen.
- 13. Mention the significance of erythropoietin.
- 14. What are pro-coagulants?
- 15. What is erythroblastosis fetalis?

Paper-CC6 (Cardiovascular System) Full marks: 10

Answer any 10 from the following:

 $(10 \times 1 = 10)$

- 1. State sterling's law of heart.
- 2. What is the cause of AV nodal delay?
- 3. State the significance of 'murmur' in heart sounds.
- 4. Why arteries are called wind Kessel vessels?
- 5. What is a Stannius ligature?
- 6. State Einthoven's law.
- 7. Name two types of cell junctions in the intercalated discs
- 8. Name the buffer nerves. Why are they so called?
- 9. State Hagen–Poiseuille's Law
- 10. What is "Wilson's Central Terminal"?
- 11. What is 'slow diastolic depolarization phase'?
- 12. What is atherosclerosis?
- 13. What is 'Treppe'?
- 14. What is the significance of PR interval of ECG?
- 15. Define chronotropic effect of heart.

INTERNAL EXAMINATION, 2022

Semester III/ Physiology Honours (PHYA)

Date: 14/12/2022

Paper-CC7 (Respiratory system) Full marks: 10

Answer any 10 from the following:

- 1. State the origin and innervation of phrenic nerve.
- 2. What is dead space? what is its normal value?
- 3. What is Haldane's effect?
- 4. State the function of pulmonary surfactant.
- 5. What is lung compliance?
- 6. State the location and function of airway goblet cell.
- 7. What is emphysema?
- 8. What is FRC? How can it be measured? What is its normal value?
- 9. How compliance curve is altered in emphysema?
- 10. What is J-receptor? In which conditions they are stimulated?
- 11. What do you mean by ventilation-perfusion ratio?
- 12. What is cyanosis?
- 13. Mention any two non-respiratory functions of lung.
- 14. What is infant respiratory distress syndrome?
- 15. What is asphyxia?

Paper-SEC - A (Hematological Techniques) Full marks: 10

Answer any 10 from the following:

- 1. Name two methods of determination of ESR.
- 2. What is PCV? Mention its normal values for healthy adults.
- 3. What is the cause of pernicious anemia?
- 4. What is the composition of WBC diluting fluid?
- 5. What do you mean by Bombay phenotype?
- 6. What is aplastic anaemia?
- 7. Name one exogenous and one endogenous anticoagulant.
- 8. Give the significance of the right shift of Arneth count
- 9. What is the importance of glycated hemoglobin?
- 10. Name any two hazards associated with blood transfusion.
- 11. What do you mean by thalassemia major?
- 12. Mention the basic formula for calculation of TC of WBC.
- 13. What is the function of thrombopoietin?
- 14. Why RBC attends crescent shape in sickle cell anaemia?
- 15. What is pancytopenia?
- 16. State the clinical significance of leukocytosis.

Time: 11 am-1 pm (2 hours)

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