

**First Professional MBBS Degree Supplementary Examinations
January 2020
Physiology - Paper I**

Time: 3 Hours

Total Marks: 50

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Long essay

(10)

1. A 12 years old girl child complains of lethargy and fatigability for the last three months. Physical examination revealed pallor. Routine blood investigation showed Hb -8 gm% and peripheral smear revealed microcytic hypochromic RBCs. Answer the following:
 - Identify the clinical condition and what is the cause
 - Define anemia.
 - Classify anemia based on etiology.
 - Enumerate stages of erythropoiesis and discuss the factors regulating them

(1+1+3+5)

Short essays

(2x5=10)

2. Discuss factors regulating cardiac output.
3. Explain pressure changes during normal respiratory cycle.

Answer briefly

(5x3=15)

4. Heart sounds
5. Functions of bile.
6. Tubulo-glomerular feedback.
7. Neutrophil.
8. Active transport.

Draw and label

(2x2½ =5)

9. Respiratory membrane.
10. Pacemaker potential.

Explain the physiological basis of the following

(5x2=10)

11. Steatorrhoea following pancreatectomy.
12. PR interval is prolonged in first degree heart block
13. Acute respiratory distress syndrome is seen in premature infants.
14. Polycythemia in high altitude
15. Splenectomy in idiopathic thrombocytopenic purpura.