

**Third Year M.Sc Medical Physiology Degree Regular/Supplementary
Examinations October 2025**

General Physiology, Haematology and Cardiovascular System

Time: 3 hrs

Max. Marks: 100

- *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*

Essay:

(20)

1. Define erythropoiesis. Describe the stages of erythropoiesis and the factors regulating erythropoiesis. Add a note on Iron deficiency anaemia.

Short Essays:

(8x10=80)

2. List the body fluid compartments and the constituents of each compartment. Explain the principles of measurement. Give its normal values.
3. Describe the special features of coronary circulation.
4. Explain the various pathways of clotting with the help of a schematic diagram.
5. Describe the cardiovascular changes during exercise.
6. Explain the fluid mosaic model of structure of cell membrane. Add a note on primary active transport mechanism across cell membrane.
7. Define cardiac output. Explain the heterometric regulation of cardiac output. Add a note on echocardiography.
8. With the help of a diagram, explain the waves, segments and intervals of normal Electrocardiogram.
9. List the different anticoagulants used in vivo. Explain its mechanism of action and uses.
