

[Time:3 Hours]

[Marks: 70]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
 2. Answer all sub questions together.
 3. Draw neat labeled diagram wherever necessary.

Q.1 a) Answer the following.

- Give functions of blood.
- Write down types of hypersensitivity reaction.
- Write functions of connective tissue with one example.
- Explain up-hill process of transport.
- Explain role of histamine in inflammation.
- What is polycythemia Vera?

12

b) Answer the following.

- Deficiency of _____ vitamin causes pernicious anemia.
- _____ hormone increases the rate of production of red blood cells.
- Kleakness in the voluntary skeletal muscles is a main symptom of _____.

03

Q.2 a) Answer any Two of the following:

- Explain the process of erythropoiesis.
- Write down the functions of platelets and discuss the clinical significance of thrombocytopenia.
- Write a note on Leukocytopenia.

08

b) Answer any ONE of the following:

- Write the process of Hemostasis.
- Write a note on: Hypersensitivity reactions.

03

Q.3 a) Answer any TWO of the following.

- Compare & contrast between Cardiac muscle & skeletal muscle.
- Explain organization of skeletal muscle fiber with a suitable diagram.
- Write a note on: Smooth muscle.

08

b) Answer any ONE of the following.

- Explain what are the sources of energy for skeletal muscle contraction
- Write a note on: Properties of Cardiac muscle.

03

Q.4 a) Answer any TWO of the following

- Enlist organs of Lymphatic system, add a note on Lymph formation and lymph nodes.
- Draw a neat labeled diagrams of spleen and write its functions
- Write a note on Rheumatic arthritis

08

b) Answer any ONE of the following:

- i) Write a note on autoimmune diseases
- ii) State location, functions of simple Cuboids epithelium and support you answer with well labeled diagram

03

Q.5 a) Answer any TWO of the following:

- i) Draw fluid mosiac design of plasma membrane. Explain the functions & transport across the plasma membrane.
- ii) Write a note on: Na⁺ - K⁺ ATPase pump.
- iii) Discuss the process of chronic inflammation.

08

b) Answer any ONE of the following:

- i) Explain the process of cell mediated immunity.
- ii) Explain the steps of coagulation of blood

03

Q.6 a) Answer any TWO of the following:

- i) Explain hemolytic disease of the new born.
- ii) Explain various mechanism of diffusion.
- iii) Differentiate between white fibers & yellow fibers of connective tissue.

08

b) Answer any ONE of the following.

- i) Write a note on Tissue repair
- ii) Write a note on inflammatory mediators.

03