

[Time: Three 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.

- i. Classify epithelial issue.
- ii. Explain the process of pinocytosis
- iii. Enlist organs of lymphatic system.
- iv. What is granulocytopenia.
- v. What is chemotaxis.
- vi. Explain what isometric & isobaric contraction is.

12

b) Answer the following :

- i. Explain what is serum & what is plasma
- ii. -----neurotransmitter is released at neuromuscular junction.
- iii. -----fluid is found in joints.

03

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

- i) Explain the process of erythropoiesis in detail.
- ii) Explain in details about type I & type II hypersensitivity reactions.
- iii) Write a note on different types of anemia.

08

b) Answer **any One** of the following:

- i) Write a note on Sickle cell anemia.
- ii) Give functions of WBCs & platelets.

03

Q.3 a) Answer **any Two** of the following:

- i) Explain the structure of skeletal muscle with a neat labeled diagram
- ii) Compare & contrast between skeletal & smooth muscle.
- iii) Write a note on Neuromuscular junction.

08

b) Answer **any One** of the following.

- i) Explain the process of transcytosis
- ii) Explain the structure of sarcomere.

03

Q.4 a) Answer **any TWO** of the following.

- i) Explain the histology & function of spleen in brief.
- ii) Write a note on flow of lymph
- iii) Write a note on Grave's disease.

08

b) Answer any ONE of the following

- i) Classify & give functions of connective tissue.
- ii) Write a note on adipose tissue.

03

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

- i) Explain the role of integral proteins & cholesterol in plasma membrane.
- ii) With a neat labeled diagram, explain the structure of cardiac muscle.
- iii) Differentiate between active & passive transport processes.

08

b) Answer any ONE of the following.

- i) Explain the role of histamine in inflammatory reaction.
- ii) Explain in brief mechanism involved in increase in vascular permeability during inflammation

03

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

- i) Explain the process of blood coagulation.
- ii) Classify WBC's give its normal count & explain in what conditions its number increase & decreases.
- iii) Write a note on blood group's & explain what is erythroblastosis fetalis.

08

b) Answer any ONE of the following.

- i) Explain the process of phagocytosis
- ii) Describe the features of chronic inflammation.

03