

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
  2. Figures to the right indicate full marks.
  3. Draw neat, labeled diagrams wherever necessary.

- Q.1** a) Answer the following. **16**
- i. Justify –blood as a connective tissue
  - ii. Justify – Pseudostratified epithelium as epithelial tissue
  - iii. Justify – Bloodgroup AB is universal system.
  - iv. Justify – Skin as a part of immune system.
  - v. State the difference between primary and secondary lymphatic organs.
  - vi. Define –negative feedback mechanism.
  - vii. Enlist the components of Blood plasma.
  - viii. Enlist types of muscular tissue
- 04**
- b) Answer the following :
- i. A healthy adult has about -----million red blood cells per microliter of blood.
  - ii. Leukemia is represented by abnormal production of -----
  - iii. A -----Is a region where communication occurs between two neurons, or between a neuron and a target cell.
  - iv. Name two types of adaptive immunity.
- Q.2** a) Answer **any two** of the following. **08**
- i. Write a note on composition of blood and its functions.
  - ii. Describe the process blood coagulation.
  - iii. Discuss erythroblastosis fetalis.
- b) Write a short note on **any one** of the following **04**
- i. Leucopenia and Leukocytosis
  - ii. Anemia and its types
- Q.3** a) Answer **any two** of the following **08**
- i. Give detailed account of skeletal muscle contraction
  - ii. Write a note on energy metabolism in skeletal muscle.
  - iii. Describe sliding filament mechanism of skeletal muscle contraction
- b) Answer **any one** of the following **04**
- i. Write a note on neuromuscular transmission
  - ii. Draw a neat, labeled diagram showing organization of skeletal muscle

- Q.4** a) Answer **any two** of the following. **04**
- i. Draw a neat, labeled diagram of spleen. Discuss functions of spleen.
  - ii. Discuss anatomy and functions of lymph node.
- b) Write a short note on **any one** of the following **04**
- i. Myasthenia Gravis
  - ii. AIDS
- c) Answer **any one** of the following **04**
- i. Describe bone as a connective tissue, its classification and function.
  - ii. Draw a neat labeled diagram of a neuron.
- Q.5** a) Answer **any one** of the following **04**
- i. Discuss fluid mosaic model of plasma membrane
  - ii. Explain active transport mechanism
- b) Answer **any one** of the following **04**
- i. What are different types of muscle contraction? Explain with the help of examples
  - ii. Write a note on functions and properties of muscles.
- c) Answer **any one** of the following. **04**
- i. Describe the mechanisms involved in migration of WBC
  - ii. Write a note on process of chronic inflammation.
- Q.6** a) Answer **any two** of the following **08**
- i. Write a short note on synthesis of hemoglobin
  - ii. Explain the process erythropoiesis in detail.
  - iii. Explain different types of hypersensitivity reactions.
- b) Answer **any one** of the following **04**
- i. Describe the process of chemotaxis and its importance.
  - ii. Discuss different cells involve in immune response.