

[LK 0217]

FEBRUARY 2017

Sub. Code :2402

**B.Sc. PROSTHETICS AND ORTHOTICS**

**FIRST YEAR**

**PAPER II – PHYSIOLOGY**

*Q.P. Code: 802402*

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. List the various constituents of blood. What are the functions of blood?
2. With the help of a diagram, describe the structure of a neuron. List the different neuroglial cells seen in the nervous system along with their functions.
3. With a help of a diagram, describe the various lung volumes and capacities.

**II. Write notes on:**

**(8 x 5 = 40)**

1. What is an ECG? Draw and label the waves in a normal ECG.
2. What is the normal blood pressure? Mention some causes where the blood pressure can vary from the normal value.
3. List the functions of insulin and glucagon.
4. Describe the steps in transmission across the neuromuscular junction.
5. Describe the micturition reflex.
6. List the different functions of skin.
7. What is meant by active transport and passive transport? Give examples of each.
8. Describe the monosynaptic stretch reflex.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Define cardiac output. List two factors affecting cardiac output.
2. What is hypoxia? List two conditions causing hypoxia.
3. List the muscles involved in inspiration and expiration.
4. Classify body fluid compartments.
5. What is erythrocyte sedimentation rate (ESR)?
6. What is Diabetes Mellitus? List some clinical features of this disease.
7. What is muscle fatigue? What are the possible causes?
8. Draw and label the action potential of a neuron.
9. What is a cystometrogram?
10. What is the pacemaker of the heart? How is the impulse from the pacemaker conducted in the heart? (conducting system of the heart)

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