[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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[LL 0817] AUGUST 2017 **Sub. Code :2402**

B.Sc. PROSTHETICS & 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. Draw a labeled diagram of a cell. List the various organelles present and write one function of each of them.
2. List the hormones produced by the pancreas. Describe the action of the hormone insulin. What is diabetes mellitus?
3. Describe the different phases of the cardiac cycle. Add a note on the heart sounds.

II. Write notes on: **(8 x 5 = 40)**

1. Describe the process of coagulation of blood.
2. Describe the structure of the neuromuscular junction with the help of a diagram.
3. Describe the conducting system of the heart.
4. With the help of a diagram describe the different lung volumes and capacities.
5. Describe the differences between an Upper Motor Neuron lesion and a Lower Motor Neuron Lesion.
6. List the functions of the hypothalamus.
7. Describe the Micturition reflex.
8. Describe the structure and function of Red Blood Cells.

III. Short answers on: **(10 x 3 = 30)**

1. List the functions of Skin.
2. Define the terms dyspnoea and orthopnoea.
3. What is meant by the term Resting Membrane Potential?
4. What is a cystometrogram?
5. List the muscles of inspiration and expiration.
6. Describe the features of cardiac muscle.
7. List the functions of the cerebellum.
8. What is meant by the term Erythrocyte Sedimentation Rate (ESR)? Mention the Normal value of ESR.
9. Explain the terms active transport and passive transport.
10. List the functions of the respiratory System.

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[LM 0218] FEBRUARY 2018 **Sub. Code: 2402**

BACHELOR IN PROSTHETICS & 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 different White blood cells present in the blood and list the functions of each cell. What is meant by the term immunity?
2. Anatomy of a neuron with a labeled diagram of a neuron. What is meant by the term Resting Membrane Potential?
3. With a help of a diagram, describe the different lung volumes and capacities.

II. Write notes on: **(8 x 5 = 40)**

1. With the help of a diagram, describe the normal ECG.
2. Describe the secretion and functions of insulin. Add a note on diabetes mellitus.
3. Describe the micturition reflex.
4. Describe how a nerve impulse is conducted across the neuro muscular junction.
5. Define the term cardiac output. What are the factors that affect cardiac output?
6. List the different ascending tracts in the body. Describe the pathway for pain.
7. List the various organelles in the cell and write down one function of each.
8. What is the normal blood pressure? What are the factors that affect blood pressure? Add a note on hypertension.

III. Short answers on: **(10 x 3 = 30)**

1. Describe the structure of skin.
2. List the different transport mechanisms across the cell membrane.
3. List some common plasma proteins and their functions.
4. List the functions of platelets.
5. List the actions of glucagon.
6. Describe the structure of smooth muscle. Where is it found in the body?
7. What is a cystometrogram?
8. What is meant by the term hypoxia? List two conditions when hypoxia can be seen.
9. What is meant by muscle fatigue? What are its possible causes?
10. Define the terms apnoea and tachypnoea.

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