Section A

I. Elaborate on:

1. What is Erythropoiesis? Describe the various stages in the development of RBC. Mention the factors needed for erythropoiesis.

II. Write Notes on:

1. Conducting system of the heart.
2. Write phases of endometrial cycle.
3. Hypoxia and its types.
4. Actions of Glucocorticoids.
5. Functions of hypothalamus.

Section B

I. Elaborate on:

1. What is the normal serum calcium level? Elaborate on the maintenance of calcium homeostasis.

II. Write Notes on:

1. Polysaccharides.
2. Competitive Inhibition.
3. Essential aminoacids.
4. Scurvy.
5. Jaundice.
FIRST YEAR B.D.S. DEGREE EXAM
PAPER II – GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

Q.P Code: 544202

Time: 180 Minutes                                    Maximum: 70 Marks

Draw Suitable diagrams wherever necessary
Answer section A and B in Separate Answer Books

SECTION – A
(GENERAL HUMAN PHYSIOLOGY)

I. Elaborate on:                                    (1 x 10 = 10)

1. Define cardiac output. Describe factors regulating it. Add a note on measurement of cardiac output.

II. Write Notes on:                                (5 x 5 = 25)

1. Erythrocyte sedimentation rate.
2. Heart Sounds.
3. Composition and functions of Saliva.
5. Ovulation.

SECTION – B
(BIOCHEMISTRY)

I. Elaborate on:                                    (1 x 10 = 10)

1. Explain beta oxidation of fatty acids with its energetics.

II. Write Notes on:                                (5 x 5 = 25)

1. Functions, sources and diseases of thiamine deficiency.
2. Complications of Diabetes Mellitus.
3. Serum calcium regulation.
4. Gout.
5. Essential amino acids.
FIRST YEAR B.D.S. DEGREE EXAM
PAPER II – GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY
Q.P Code: 544202

Time: 180 Minutes                                    Maximum: 70 Marks

Draw Suitable diagrams wherever necessary
Answer section A and B in Separate Answer Books

SECTION – A
(GENERAL HUMAN PHYSIOLOGY)

I. Elaborate on:                                      (1 x 10 = 10)

1. Enumerate the hormones secreted by anterior pituitary gland. Describe the actions of growth hormone.

II. Write Notes on:                                 (5 x 5 = 25)

1. Classification of Anaemia.
2. Spermatogenesis.
3. Functions of thalamus.
4. Lead II ECG.
5. Contraception.

SECTION – B
(BIOCHEMISTRY)

I. Elaborate on:                                      (1 x 10 = 10)

1. Name the water soluble vitamins. Describe the deficiency manifestations of vitamin C, vitamin A and vitamin D in detail.

II. Write Notes on:                                 (5 x 5 = 25)

1. Any two enzymes of diagnostic significance.
2. Phospholipids.
3. Significance of HMP shunt pathway.
4. Regulation of plasma calcium level.
5. Genetic code.
FIRST YEAR B.D.S. DEGREE EXAM
PAPER II – GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

SECTION – A
(GENERAL HUMAN PHYSIOLOGY)

I. Elaborate on: (1 x 10 = 10)

1. Define cardiac cycle. Describe the mechanical events of cardiac cycle.

II. Write Notes on: (5 x 5 = 25)

1. Erythroblastosis fetalis.
2. ABO Blood group system.
3. Write a note on Glomerular Filtration Rate (GFR).
5. Types of Hypoxia.

SECTION – B
(BIOCHEMISTRY)

I. Elaborate on: (1 x 10 = 10)

1. Write down the normal calcium and phosphorus levels. Describe the functions of calcium, phosphorus and vitamin D in detail.

II. Write Notes on: (5 x 5 = 25)

1. Glycogen storage diseases.
2. Isoenzymes.
3. Plasmalipoproteins.
4. Any two inborn errors of amino acid metabolism.
5. Liver function tests.

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AUGUST 2018

FIRST YEAR B.D.S. DEGREE EXAM
PAPER II – GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

Q.P Code: 544202

Time: 180 Minutes                                   Maximum: 70 Marks

Draw Suitable diagrams wherever necessary
Answer section A and B in Separate Answer Books

SECTION – A
(GENERAL HUMAN PHYSIOLOGY)

I. Elaborate on:                                    (1 x 10 = 10)
   1. Define menstrual cycle. Explain the Endometrial and ovarian changes during menstrual cycle.

II. Write Notes on:                                (3 x 5 = 15)
   1. Factors affecting Erythropoiesis.
   2. Conducting system of heart.
   3. Trace the pain pathway.

III. Short answers:                                 (5 x 2 = 10)
   1. Sarcomere.
   2. Action potential.
   3. Function of growth hormone.
   4. Name the various respiratory centres.
   5. Receptors for vision.

SECTION – B
(BIOCHEMISTRY)

I. Elaborate on:                                    (1 x 10 = 10)

II. Write Notes on:                                (3 x 5 = 15)
   1. Ascorbic Acid.
   2. Lipid profiles – significance of Cholesterol.
   3. Fluorosis.

III. Short answers:                                 (5 x 2 = 10)
   1. Significance of transfer RNA.
   2. Gout.
   3. Substances level elevated in Renal diseases and their normal values.
   4. Definition of Genetic code.
   5. Specialized products formed from Tyrosine.
FIRST YEAR B.D.S. DEGREE EXAM
PAPER II – GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

Q.P Code: 544202

Time: 180 Minutes
Maximum: 70 Marks

Draw Suitable diagrams wherever necessary
Answer section A and B in Separate Answer Books

SECTION – A
(GENERAL HUMAN PHYSIOLOGY)

I. Elaborate on: (1 x 10 = 10)

II. Write Notes on: (3 x 5 = 15)
1. Composition and function of saliva.
2. Describe the structure of neuromuscular junction.
3. Explain Oxygen Hemoglobin Dissociation curve.

III. Short answers: (5 x 2 = 10)
1. Erythrocyte Sedimentation Rate.
2. Cretinism and Dwarfism.
3. Functions of Liver.
4. Draw a labelled diagram of a simple reflex arc.
5. Name two Anti-Coagulant

SECTION – B
(BIOCHEMISTRY)

I. Elaborate on: (1 x 10 = 10)
1. What is the normal level of Blood Urea? Describe the synthesis of Urea and add a note on Metabolic disorders associated with Urea Cycle.

II. Write Notes on: (3 x 5 = 15)
1. Define and Name Polysaccharides.
2. Mutation.
3. Deficiency Manifestation of Vitamin A.

III. Short answers: (5 x 2 = 10)
1. Essential Amino Acids.
2. Essential Fatty Acids.
3. Enzymes – clinically Important (Any two with their normal values and clinical significance).
4. Reducing property of sugar.
5. Examples for Dietary Fibers.

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