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MBBS
First Professional Examination, Aug 2016
Physiology –I

Time: Three Hours]

[Maximum Marks: 40

Note: Attempt all questions. Use separate answer sheets for part A & Part B. Parts of a question must be attempted in sequence. Draw well labeled diagram wherever necessary.

Section –A

1. Define cardiac output. Explain any one method by which cardiac output is determined. Explain the factors that regulate the cardiac output.
[2+2+2=8]
2. Write briefly about--- [3×2]
 - a. Neural regulation of respiration
 - b. Haldane effect
3. Write short notes on- [3×2]
 - a. Peristalsis
 - b. Active transport

Section –B

1. Describe different stages of the erythropoiesis & explain the factors that control erythropoiesis. Add a note on reticulocyte.
[4+2+2=8]
2. Write briefly about-- [3×2]
 - a. Juxtaglomerular apparatus.
 - b. Presence of albumin in urine suggests renal dysfunction. Explain why? What is the effect of Proteinuria on the body.
3. Write short notes on- [3×2]
 - a. Name the bile salts. Write the functions of bile salts. Add a note on enterohepatic recirculation of bile salts.
 - b. Refractory Period

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MBBS
First Professional Examination, Aug 2016
Physiology –II

Time: Three Hours]

[Maximum Marks: 40

Note: Attempt all questions. Use separate answer sheets for part A & Part B. Parts of a question must be attempted in sequence. Draw well labeled diagram wherever necessary.

Section –A

1. Enumerate Basal Ganglia. Briefly discuss its role in motor activity along with labeled diagrams of circuit. [8]
2. Differentiate between— [4×2]
 - a. Myopia & Hypermetropia
 - b. REM & NREM sleep
3. Write short notes on— [2x2]
 - a. Latch Mechanism.
 - b. Thick & thin filaments of skeletal muscle

Section –B

1. Enumerate Thyroid Hormones. Briefly describe physiological functions of thyroid hormones. [8]
2. Discuss Ovarian Hormones and their functions. [8]
3. Write short notes on – [2x2]
 - a. Aldosterone escape mechanism
 - b. Impedance matching

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MBBS
First Professional Examination (Supple), Dec 2016
Physiology –I

Time: Three Hours]

[Maximum Marks: 40

Note: Attempt all questions. Use separate answer sheets for part A & Part B. Parts of a question must be attempted in sequence. Draw well labeled diagram wherever necessary.

Section –A

1. Define hypoxia. Classify it. Give the characteristic features of each type of hypoxia. [8]
2. Differentiate between--- [4×3=12]
 - a. Homometric & Heterometric regulation of stroke volume.
 - b. Cellular & humoral immunity
 - c. Intrinsic & Extrinsic clotting mechanism

Section –B

1. Define glomerular filtration rate. Explain factors affecting it. [8]
2. Write short notes on- [4×3=12]
 - a. Gastric emptying
 - b. $\text{Na}^+ \text{-} \text{K}^+$ pump
 - c. Functions of Liver

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MBBS
First Professional Examination(Supple), Dec 2016
Physiology –II

Time: Three Hours]

[Maximum Marks: 40

Note: Attempt all questions. Use separate answer sheets for part A & Part B. Parts of a question must be attempted in sequence. Draw well labeled diagram wherever necessary.

Section –A

1. Describe the physiological actions of thyroid hormone. Give the clinical aspects of hyperthyroidism. [5+3 =8]
2. Describe- [3×2=6]
 - a. Stretch reflex with examples
 - b. Physiological action of testosterone
3. Explain in brief- [3x2=6]
 - a. Excitation- Contraction coupling
 - b. Functions of Insulin hormone

Section –B

1. Describe the afferent & efferent connections of the cerebellum & list the clinical features of cerebellar disorders. [3+4=7]
2. Write briefly on- [3×3=9]
 - a. Functions of middle ear.
 - b. Brown Sequard Syndrome
 - c. Properties of synapse
3. Write short notes on – [2x2]
 - a. Vesicular transport
 - b. Colour blindness