Date: 06-06-2015

HDO 2513

First Year MBBS Examination

I MBBS Physiology Paper 1

Time: 3 hours

Max Marks: 50

Instructions: 1. Answer to the points. 2. Figure to the right indicates marks. 3. Use separate answer books for each section. 4. Draw diagrams wherever necessary. 5. Write legibly.

Section 1

1. Explain in detail: (any two) (10)
   a. Explain in detail about Erythropoiesis (A.74) (B.108)
   b. Explain in detail about Sickle cell anaemia
   c. Explain the anticoagulant mechanism
2. A.Write brief notes on (any two) (6)
   a. Liver function tests
   b. Gastrointestinal hormones
   c. Action Potential
3. 2B.Write brief on (any one) (3)
   a. Apoptosis

b. Facilitated diffusion (A.31) (8.17)

4. 3.Give brief on (any two) (6)
   a. Neuromuscular junction (A.199) (8.63)
   b. Motor unit (A.202) (8.75)
   c. Saltatory conduction (A.800) (8.55)

Section 2

1. 4.Explain in detail (any two) (10)
   a. Define cardiac cycle.Describe various phases pressure & volume changes during cardiac cycle. (A.534)8.179)
   b. Define blood pressure. Describe in detail long term regulation of blood pressure
   c. What is oxygen hemoglobin dissociation curve? Describe briefly factors affecting it.
2. 5A.Write briefly on (any two) (6)
   a. Surfactant (A.715) (8.296)
   b. Parasympathetic system
   c. Hypothermia (A.363) (B.961)
3. 58.Write briefly on (any one) (3)
   a. Bain bridge reflex (A.620)
   b. Chloride shift (A.744)
4. 6.Short explanatory objective questions: (6)
   a. What are symporters?
   b. What is reduced hemoglobin?
   c. Define Anaemia.
   d. How Acetyl-choline (Ac is removed at neuromuscular junction?
   e. Explain the advantage of AV nodal delay to the heart
   f. Name two mechanism of protection of gastric mucosal surface from damage by gastric acid
   g. Define vital capacity (A.696) (B.301)

h. Define tidal volume
i. Which neurons in ANS secrete acetyl-choline (Ace)?
j. What is the effect of sympathetic nervous system stimulation on heart?

***