

First Professional MBBS Degree Examinations July 2017

PHYSIOLOGY – Paper I

Time: 3 Hours

Total Marks: 50

- *Answer all questions*
- *Draw Diagrams wherever necessary*

Long essay

(10)

1. A 60 years old man complaints of chest pain on exertion, radiating to his left arm and severe shortness of breath. Answer the following :
- What is the most probable condition he is suffering from.
 - Mention the most common investigation done in such a patient and describe with the help of a normal diagram the changes that are expected in this
 - ~~What~~ are the functional features of coronary circulation. (1+5+4=10)

Short essays

(2x5 =10)

2. Describe the neural control of respiration and add a note on Cheyne stokes breathing
3. Explain the mechanisms of water re-absorption in renal tubule

Answer briefly

(5x3=15)

4. Peristaltic movements
5. Primary active transport
6. Starling's forces in capillary fluid exchange
7. Control of gastric secretion
8. Role of lymphocytes in immunity

Draw and label

(2x2½ =5)

9. Spirometric recording of lung volumes
10. Cystometrogram in a normal human

Explain the physiological basis of the following

(5x2=10)

11. Entero-hepatic circulation
12. Resting bradycardia in athletes
13. Lung alveoli are dry normally
14. Decompression sickness
15. Megaloblasts in vitamin B₁₂ deficiency anemia
