

First BHMS Degree Examinations – October 2016

**Physiology & Biochemistry I
(2015 scheme)**

Time: 3 hrs

Max marks: 100

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

Long Essay

(2x15=30)

1. Define erythropoiesis. Explain the stages of erythropoiesis and add a note on plasma proteins. ((2+8+5=15)
2. Enumerate the properties of the cardiac muscles. Define cardiac cycle. Describe the various events of cardiac cycle (5+2+8=15)

Short Essay

(5x8=40)

3. Define anaemia. Classify anaemia and add a note on iron deficiency anaemia (2+4+2=8)
4. Name the respiratory centres. Explain the neural mechanism in regulation of respiration (2+6=8)
5. Define acclimatisation. Explain the changes happening in blood, cardio-vascular and respiratory systems during acclimatisation. (2+6=8)
6. What is renal corpuscle and explain the structure of renal corpuscles. Classify nephrons (2+4+2=8)
7. Explain how sodium is reabsorbed in the renal tubules. What is tubular secretion (5+3=8)

Short notes

(10x3=30)

8. Define diffusion. Mention two factors affecting rate of diffusion
9. What is pinocytosis and explain mechanism involved in pinocytosis
10. Haldane effect
11. Define and classify arrhythmia
12. Pacemaker
13. Selective reabsorption of renal tubules
14. Starling's law of muscle
15. Explain the terms hyperthermia and hypothermia
16. Muscle tone
17. Platelet plug formation and how it is formed
