

**Q.P.Code:302379**

**Reg. No:.....**

**Final Year M.Sc Medical Physiology Degree Examinations  
September 2018**

**Physiology of Respiration, Renal Physiology, Skin & Temperature Regulation,  
Principles of Biophysics as Applied to Physiology**

**Time: 3 hrs**

**Max. Marks: 100**

- *Answer all the questions*
- *Draw diagrams wherever necessary*

**Essay: (20)**

1. Describe the transportation of oxygen from the lungs to the tissue by the blood. Add a note on oxygen haemoglobin dissociation curve.

**Short Essays: (8x10=80)**

2. Name the respiratory muscles. Explain their role in normal and vigorous breathing. Show the changes in intra pleural and intrapulmonary pressure during respiratory cycle.
3. Write in detail about neural regulation of respiration.
4. Draw a diagram of respiratory membrane. Explain the factors effecting diffusion of oxygen across respiratory membrane.
5. Define pulmonary function tests. Give examples and their significance.
6. Describe the innervations of urinary bladder. Explain the act of micturition.
7. Describe the role of skin in regulation of body temperature and water balance.
8. Describe the various aspects of re absorption of glucose at the renal tubule.
9. What is artificial kidney. Describe the physiological basis of artificial kidney.

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