

# PHYSIOLOGY QUESTION BANK – RESPIRATORY SYSTEM (TNMGRMU)

BPT / Allied Health Sciences | University Examination Pattern

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## 1. STRUCTURE AND FUNCTIONS OF RESPIRATORY SYSTEM

### Very Short Answer (2 Marks – Knowledge)

1. Define respiration.
2. Name the parts of respiratory system.
3. Mention any two functions of respiratory system.

### Short Answer (5 Marks – Understanding)

1. Describe the structure of respiratory system.
2. Explain functions of respiratory system.

### Long Answer (10 Marks – Analysis)

1. Describe structure and functions of respiratory system with neat diagram.
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## 2. MECHANICS OF RESPIRATION

(Muscles of respiration, Lung & chest wall compliance, V/Q ratio, Surfactant)

### Very Short Answer (2 Marks – Knowledge)

1. Define mechanics of respiration.
2. What is surfactant?
3. Define V/Q ratio.

### Short Answer (5 Marks – Understanding)

1. Describe muscles of respiration.
2. Explain lung and chest wall compliance.
3. Write a note on surfactant.
4. Explain V/Q ratio.

### Long Answer (10 Marks – Analysis)

1. Describe mechanics of respiration in detail.
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## 3. TRANSPORT OF RESPIRATORY GASES (O<sub>2</sub> & CO<sub>2</sub>)

### Very Short Answer (2 Marks – Knowledge)

1. Name the forms of oxygen transport.
2. Define oxygen dissociation curve.

### Short Answer (5 Marks – Understanding)

1. Explain transport of oxygen.
2. Describe transport of carbon dioxide.

### Long Answer (10 Marks – Analysis)

1. Describe transport of oxygen and carbon dioxide with diagrams.
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## 4. NERVOUS AND CHEMICAL REGULATION OF RESPIRATION

### Very Short Answer (2 Marks – Knowledge)

1. Name respiratory centers.
2. What are chemoreceptors?

### Short Answer (5 Marks – Understanding)

1. Explain nervous regulation of respiration.
2. Describe chemical regulation of respiration.

### **Long Answer (10 Marks – Analysis)**

1. Describe regulation of respiration.
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## **5. HYPOXIA, CYANOSIS AND DYSPNEA**

### **Very Short Answer (2 Marks – Knowledge)**

1. Define hypoxia.
2. Define cyanosis.
3. Define dyspnea.

### **Short Answer (5 Marks – Understanding)**

1. Classify hypoxia.
2. Explain causes of cyanosis.
3. Describe dyspnea.

### **Long Answer (10 Marks – Analysis)**

1. Describe hypoxia, cyanosis and dyspnea.
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## **6. ACID–BASE BALANCE**

### **Very Short Answer (2 Marks – Knowledge)**

1. Define pH.
2. Name buffer systems of body.

### **Short Answer (5 Marks – Understanding)**

1. Explain bicarbonate buffer system.
2. Describe respiratory regulation of acid–base balance.

## Long Answer (10 Marks – Analysis)

1. Describe regulation of acid–base balance.
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## 7. LUNG FUNCTION TESTS

(Spirometer, Lung volumes and capacities)

### Very Short Answer (2 Marks – Knowledge)

1. Define spirometry.
2. Name any two lung volumes.

### Short Answer (5 Marks – Understanding)

1. Explain spirometry.
2. Describe lung volumes and capacities.

## Long Answer (10 Marks – Analysis)

1. Describe principles of lung function tests with diagram.
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## 8. ARTIFICIAL RESPIRATION

### Very Short Answer (2 Marks – Knowledge)

1. Define artificial respiration.
2. Name any one method of artificial respiration.

### Short Answer (5 Marks – Understanding)

1. Explain methods of artificial respiration.

## Long Answer (10 Marks – Application)

1. Describe artificial respiration and its clinical importance.

## **9. EFFECT OF EXERCISE ON RESPIRATORY SYSTEM**

### **Very Short Answer (2 Marks – Knowledge)**

1. Mention any two respiratory changes during exercise.

### **Short Answer (5 Marks – Understanding)**

1. Explain acute effects of exercise on respiratory system.
2. Describe chronic effects of exercise on lungs.

### **Long Answer (10 Marks – Evaluation)**

1. Describe effects of exercise on respiratory system.
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## **10. DEFENSE MECHANISMS OF RESPIRATORY SYSTEM**

### **Very Short Answer (2 Marks – Knowledge)**

1. Mention any two defense mechanisms of respiratory system.

### **Short Answer (5 Marks – Understanding)**

1. Describe mechanical defense mechanisms of respiratory tract.
2. Explain immunological defense mechanisms of lungs.

### **Long Answer (10 Marks – Analysis)**

1. Describe defense mechanisms of respiratory system.
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✓ **Strictly based on TNMGRMU syllabus**

✓ **University-oriented 2, 5 & 10 mark questions**

✓ **Suitable for BPT / Allied Health Sciences**