

FINAL EXAM
JUNE 2012

NATIONAL BOARD OF EXAMINATIONS

RESPIRATORY DISEASES

PAPER- I

Time : 3 hours
Max. Marks : 100

RPD/J/12/42/I

Attempt all questions in order.
Each question carries 10 marks.

1. A 45 years old man, non smoker presents with progressive shortness of breath with intermittent worsening over 2 years duration. Examination reveals signs of pulmonary arterial hypertension. Discuss approach to diagnosis and management. 5+5
2. A 25 years old lady presents with hemoptysis, progressive breathlessness, increasing radiological markings on chest X ray, decreasing haemoglobin and microscopic haematuria. What is the likely cause? Discuss differential diagnosis and approach to management. 2+4+4
3. a) Enumerate common mechanisms of hypoxia. 4+6
b) Discuss briefly different methods of oxygen therapy.
4. How do you assess the severity of illness in critically sick patients? Discuss briefly APACHE-II scoring system. 4+6
5. a) Enumerate the causes of Respiratory Acidosis. 3+2+3+2
b) Briefly discuss pathophysiology of Respiratory Acidosis?
c) What are its clinical manifestations?
d) How will you treat Respiratory Acidosis?
6. A 60 year old male, known case of COPD Gold III with BMI of 40 Kg/m² presents with day time somnolence and right heart failure. Briefly discuss differential diagnosis, pathophysiological mechanisms for clinical features and management strategies. 3+4+3
7. Describe briefly the various presentation of Hypersensitivity Pneumonitis (HP). Discuss differential diagnosis and treatment strategies for HP. 4+4+2
8. a) What is virtual bronchoscopy? 2+(3+5)
b) Write briefly about its indications and current status in diagnosis of respiratory disorders.
9. a) Define acute lung injury and acute respiratory distress syndrome (ALI/ARDS). 2+3+5
b) Enumerate causes of ALI/ARDS.
c) Discuss briefly the role of Non invasive ventilation (NIV) in management of ALI/ARDS.
10. Enumerate causes of chronic cough. Discuss approach to diagnosis and management. 2+4+4

POSSESSION/USE OF CELL PHONES OR ANY SUCH ELECTRONIC GADGETS IS NOT PERMITTED INSIDE THE EXAMINATION HALL

RESPIRATORY DISEASES
PAPER- II

Time : 3 hours
Max. Marks : 100

RPD/J/12/42/II

Attempt all questions in order.
Each question carries 10 marks.

1. Write a short note on the sources of indoor air pollution and their effect on respiratory health. 3+7
2. Write a brief note on BCG vaccination for prophylaxis of tuberculosis. 10
3. How do you classify Diffuse Parenchymal Lung Diseases (DPLD)? Discuss briefly systematic approach to diagnose a case of DPLD. 4+6
4. Describe briefly scientific rationale of RNTCP. What are the current WHO guidelines and recommendations for directly observed therapy including DOT'S Plus. 5+5
5. Discuss briefly the chemotherapy of non-small cell carcinoma of lung. 6+4
Discuss targeted therapy for lung cancer.
6. Enumerate common causative agents for Hospital Acquired Pneumonia (HAP). How do you manage such a case? 5+5
7. Enumerate non infectious (pulmonary) complications of HIV infections. 6+4
What is immune reconstitution syndrome?
8. Define pulmonary rehabilitation. Write in brief the various methods and clinical efficacy. 2+8
9. Define barotrauma. What are the risk factors? How it can be prevented? 2+4+4
10. What is antigenic drift and shift? What is its impact on epidemiology of influenza? 5+5

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RESPIRATORY DISEASES
PAPER- III

RPD/JJ/12/42/III

Time : 3 hours

Max. Marks : 100

Attempt all questions in order.

Each question carries 10 marks.

1. Enumerate various developmental disorders of the lung. How do you diagnose and manage bronchopulmonary sequestration? 4+6
2. What is chylothorax? Discuss briefly the causes, diagnosis and principles of its management. 2+2+3+3
3. A 60 year old man, known case of COPD, with acute on chronic respiratory failure became unconscious on aggressive oxygenation in emergency medical room. What are the possible causes? Discuss briefly the role of non invasive ventilation in the management of acute exacerbation of COPD. 4+6
4. What is diffusion (Pulmonary) capacity? How is it measured? What are the factors that influence it? What are its clinical utility? 2+2+3+3
5. What is OSAS? What are its risk factors? How is it diagnosed? Discuss in brief principles of its management. 1+3+3+3
6. What are the indications, contraindications and complications of fiberoptic bronchoscopy? Discuss in brief tracheobronchial stenting. (2+2+2)+4
7. Discuss the various causes and predisposing factors of thromboembolism. Enumerate various methods to diagnose pulmonary embolism. (2+5)+3
8. What are common mimics of asthma? How are they differentiated from bronchial asthma? 4+6
9. What is ventilator associated pneumonia? What are its risk factors? How are its causative organisms different? How would you prevent it? 2+3+2+3
10. Define sepsis, severe sepsis and septic shock. What are the components of sepsis bundles? Discuss briefly the current status of glycemic control in the management of septic shock. 2+3+5

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RESPIRATORY DISEASES

PAPER- IV

Time : 3 hours
Max. Marks : 100ss

RPD/J/12/42/IV

Attempt all questions in order.
Each question carries 10 marks.

1. a) Define Pressure-Volume (P/V) loop. 2+4+4
b) Describe the important features of P/V loop using illustration.
c) Discuss briefly the clinical utility of P/V loop.
2. a) What is a bronchodilator? 1+2+2+5
b) Write briefly goals of bronchodilator therapy.
c) Enumerate the various delivery method of bronchodilator.
d) Write advantages & disadvantages of aerosol therapy.
3. What is a medical thoracoscopy? Discuss its various indications. 2+5+3
What are its complications?
4. a) What is Latent Tuberculosis Infection (LTBI)? 2+4+4
b) How will you diagnose LTBI?
c) Discuss merits and demerits of these tests in diagnosis of LTBI.
5. a) What is trans-pulmonary pressure (TPP)? 3+2+5
b) Describe it graphically.
c) Clinical application of TPP
6. What are the factors contributing to difficult-to-manage asthma? 5+5
How will you treat a case of steroid resistant asthma?
7. a) What is severe community acquired pneumonia (CAP)? 2+3+5
b) How will you assess it's severity?
c) Discuss briefly the management of a case of severe CAP. P.T.O.
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8. a) Define COPD. 2+4+4
b) Discuss briefly the pathophysiology of airway obstruction in COPD.
c) How will you confirm the diagnosis of COPD?
9. a) Define Acute Respiratory Failure (ARF). 2+5+3
b) Discuss the various types of ARF.
c) Discuss in brief the principles of management of ARF in post operative state.
10. What is capnometry? Explain its various phases with illustration & clinical application. 2+(4+4)
