



Test Bank



Subject:

**Medicine-Respiratory
Rotation**

بجانب



**Collected by:
Ahmad Adel**



Kindly, read the following before you proceed!

- The questions were colour-coded so that:
 - Questions that I saw only **once** in the past papers will be in blue (like this sentence).
 - Questions that were repeated **two or three** times will be in dark orange (like this sentence).
 - Questions that were repeated **more than three** times (& in almost every past exam) will be in red (like this sentence). Make sure to study the concept of these well!
- Don't hesitate to ask me if you feel you need an explanation for any question :)

Good luck!

1- A 62-year-old smoker gentleman retired school principal, presented to the outpatient clinic with a history of chronic dry cough, his cough is associated with dyspnea on minimal exertion. He denies wheezes, chest pain, fever, anorexia, or weight loss. His drug history includes Insulin, Amlodipine, Hydrochlorothiazide, and Simvastatin. On physical examination there is finger clubbing, JVP is not raised, heart sounds are normal, on auscultation of the chest there is decreased bilateral vesicular breath sounds with fine end-inspiratory crackles, the next step in the management is:

ILD
↓
HRCT

- a. Spirometry with bronchodilator
- b. Full blood count
- c. Chest CT scan with contrast
- d. High-resolution chest CT
- e. Antinuclear antibody (ANA)

Answer: D

2- 60-year-old man comes with productive cough, hemoptysis, weight loss, night sweats. His chest X-ray shows a right upper lobe cavity. You suspect that he has tuberculosis. His HIV test is negative. His sputum Acid Fast Bacillus was negative on three occasions. The best next step in his management is:

- a. Repeat sputum AFB after one month
- b. Do blood culture for mycobacteria
- c. Do bronchoscopy
- d. Treat empirically for TB
- e. Do PPD test

Answer: C

3- 52-year-old gentleman presents with feeling unwell, a cough productive of green sputum with occasional blood streaks. He is also complaining of shortness of breath and has a cold sore. On examination he is febrile ($38.8\text{ }^{\circ}\text{C}$), tachypneic, tachycardic and there is left basal coarse crackles. What is the most likely diagnosis?

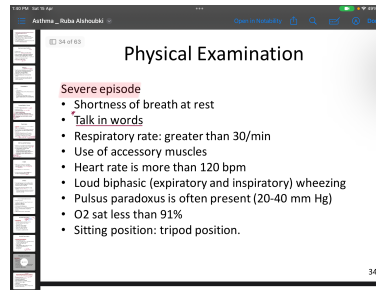
Lobar pneumonia

- a. Viral pneumonia
- b. Pneumonia due to *Streptococcus pneumoniae*
- c. Pneumonia secondary to *Mycoplasma pneumoniae*
- d. Pneumonia secondary to *Klebsiella pneumoniae*
- e. Pneumonia due to *Staphylococcus aureus*

Answer: B

4- One of the following is not considered a sign of severe asthma attack:

- a. Peak expiratory flow (PEF) 40%
- b. Oxygen saturation is 88%
- c. Respiratory rate is 32
- d. Agitated and sits hunched forward
- e. Expiratory wheezes (Biphasic)**



Answer: E

5- 47-year-old female status post abdominal hysterectomy 3 days ago suddenly develops left sided chest pain that worsens with deep inspiration and dyspnea. On exam, she is tachycardic, febrile (37.7 C°) and tachypneic with crackles in the left lower lobe. A chest x-ray is unremarkable, and an ECG reveals sinus tachycardia. Which of the following is the most likely diagnosis?

- a. Pulmonary embolism**
- b. Hospital acquired pneumonia
- c. Pneumothorax
- d. Atelectasis
- e. Acute myocardial infarction

Recent surgery

Answer: A

6- Which of the following leads to hypoxia with a normal A-a gradient?

- a. Shunting
- b. Pulmonary embolus
- c. Diffusion defect
- d. V/Q mismatch
- e. High altitude**

Answer: E

7- Which of the following pathogens most commonly complicates H1N1 influenza?

- a. Haemophilus influenzae
- b. Streptococcus pneumoniae**
- c. Legionella pneumophila
- d. Anaerobic bacteria
- e. Mycoplasma pneumoniae

2nd most common

Answer: B

8- A 55-year-old gentleman presents with extreme tiredness & difficulty concentrating. His wife states he is irritable, and he is a very loud snorer and occasionally chokes during the night. His libido is low, he is suffering from headaches and he has been falling asleep during the day as he feels very unrefreshed after his sleep. His BMI is 35. What investigation will give the diagnosis?

- a. CXR
- b. Sleep study**
- c. Thyroid function test
- d. Liver function test
- e. Pulmonary function test

Answer: B

9- A 40-year-old male patient is being mechanically ventilated with 100% oxygen & has the following arterial blood gas: pH 7.40, PaCO₂ 30 mmHg, PaO₂ 65 mmHg. What is the main mechanism of the hypoxemia in this patient?

- a. Ventilation-perfusion mismatch
- b. Intrapulmonary shunting**
- c. Pulmonary diffusion abnormalities
- d. Hypoventilation ✗
- e. Low FIO₂ ✗

↓ PaCO₂
 PaO₂ doesn't increase in response to 100% O₂

Answer: B

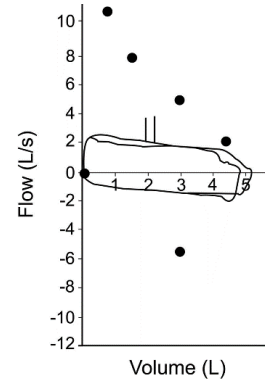
10- A 61-year-old man, smoker, diagnosed 4 years ago as COPD, presented to the emergency room with increased dyspnea, productive cough, increased yellow sputum but without fever. The FEV₁ is 1L, FVC is 2L. His ABG now is pH 7.29, PaCO₂ is 56, HCO₃⁻ is 28, & PaO₂ is 35. All of the following statements regarding this condition are true EXCEPT:

- a. This patient has hypoventilation ✓ (↑ PaCO₂)
- b. This patient has V/Q mismatch ✓ COPD
- c. Positive pressure non-invasive ventilation is appropriate therapy**
- d. Refractory Hypoxia is a common problem
- e. H. Influenza is common cause of infection among such condition

FEV₁ ↓
 FVC ↓
 RS Acidosis with

Answer: C

11- The following FVL is typical for which one of the following conditions?



- a. Variable extra-thoracic obstruction
- b. Fixed Airway obstruction**
- c. Variable Intra-thoracic obstruction
- d. Severe Emphysema
- e. Lung Fibrosis

Answer: B

12- All of the following are true regarding the Pulmonary Function testing EXCEPT:

- a. Peak Flow Meter is used to assess for variability
- b. Spirometry is effort dependent test
- c. Flow Volume Loop is of value to differentiate Upper from lower airway obstruction
- d. Residual volume is increased in Asthma
- e. DLCO is used to differentiate Emphysema from IPF *Both have ↓DLCO*

Answer: E

13- A 30-year-old woman presented to the Emergency Room with acute attack of her Asthma symptoms. An ABG on room air and Spirometry were done for her in the E/R. All of the following parameters are associated with severe asthma attack EXCEPT:

- a. PaCO₂ of 43
- b. pH of 7.30 with HCO₃ of 27
- c. PaCO₂ of 52
- d. FEV₁ of 40% of predicted
- e. P(A-a)O₂ of 22

This is an old question that's answered based on old guidelines. Forget about it.

Answer: B

14- All of the following are expected physiological disturbances seen in Pulmonary Emphysema EXCEPT:

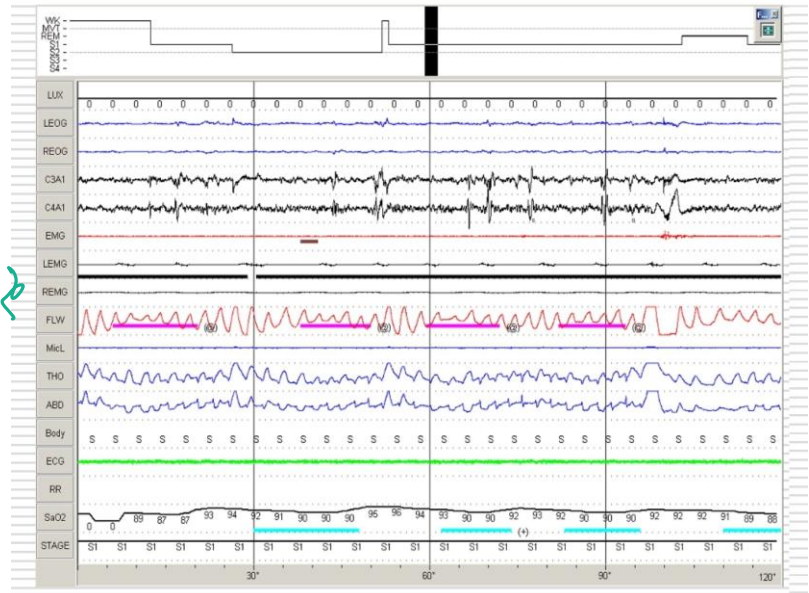
- a. Low FEV₁ ✓
- b. Low FVC ✓
- c. Low FEV₁/FVC ✓
- d. Low Compliance**
- e. Low DLCO ✓

Answer: D

15- A 66-year-old man with a history of snoring. The following is a typical fraction from his polysomnography. The sleep disturbances seen in this piece of his polysomnography is:

- a. Obstructive apnea
- b. Central apnea
- c. Upper airway resistance syndrome
- d. Mixed sleep apnea
- e. Hypopnea**

ملاحظة
تم إيقاف النفس



Answer: E

16- A 44-year-old male smoker, presented with progressive dyspnea for the last 6 months, the chest examination was positive for decrease breath sounds, expiratory wheezes, & prolonged expiratory phase. Spirometry showed an FEV1/FVC of 60%. All of the followings can cause this condition EXCEPT:

- a. Myasthenia Gravis**
- b. Emphysema
- c. Sarcoidosis → could be obstructive
- d. Tuberculosis
- e. Bronchiolitis obliterans

Answer: A

17- A 60-year-old man presented to the Emergency Department with Pneumonia. Physical examination showed that he is in pain, Temperature of 40° C, BP of 85/55 mmHg, Blood urea is 90 mg/dl and WBC is 25000. The CURB65 score for this patient is:

- a. 1
- b. 2**
- c. 3
- d. 4
- e. 5

CURB-65	Clinical Feature	Points	
C	Confusion	1	
U	Urea > 7 mmol/L	1	
R	RR ≥ 30	1	
B	SBP ≤ 90 mm Hg OR DBP ≤ 60 mm Hg	1	
65	Age > 65	1	
CURB-65 Score	Risk group	30-day mortality	Management
0-1	1	1.5%	Low risk, consider home treatment
2	2	9.2%	Probably admission vs close outpatient management
3-5	3	22%	Admission, manage as severe

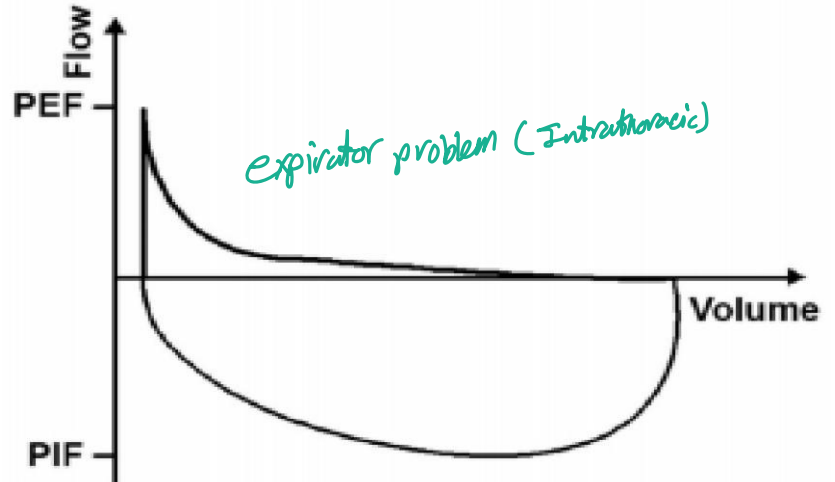
C ✓
U ✓
R ✓
B ✓
65 ✓

They LOVE this question. Make sure to memorize the CURB65 criteria very well.

Answer: B

18- The following is a typical Flow volume loop curve for a patient with which of the following conditions?

- a. Severe tracheal stenosis
- b. Severe Guillain Barrie disease
- c. Severe Vocal cord dysfunction
- d. Severe interstitial lung disease
- e. Severe Emphysema



Answer: E

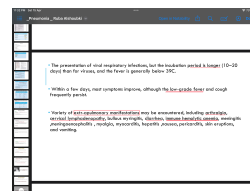
19- a 33-year-old female lady presented with symptoms of polyuria, polydipsia, & constipation. She is also complaining of new onset shortness of breath & found to have bilateral hilar lymphadenopathy with lung nodularity mainly around broncho-vascular bundle on high resolution CT scan. She has tender red nodules on the right leg. The most likely diagnosis is:

- a. Adenocarcinoma of the lung
- b. Sarcoidosis
- c. Metastatic breast cancer
- d. Hypersensitivity pneumonitis
- e. Lymphoma

Answer: B

20- A 59-year-old smoker gentleman presented with a 5-days history of fever. He complained of 3-days history of nausea, vomiting, non-bloody diarrhea. Over the past 2 days, he felt short of breath & presented in a state of dyspnea. He developed a cough with small amounts of yellow-brown sputum. On examination, you find skin lesions of erythema nodosum. You diagnosed him with pneumonia. What is the most likely cause of this patient's pneumonia?

- a. Streptococcus pneumoniae
- b. Haemophilus influenzae
- c. Klebsiella pneumoniae
- d. Viral pneumonia
- e. Mycoplasma pneumonia



Answer: E

21- A 60-year-old patient who is known case of COPD on long acting muscarinic agent (LAMA) presented with increasing shortness of breath on exertion, mild sputum production, & fatigue. His modified medical research (MMRC) scale of dyspnea is now 3 (used to be 1). On examination, poor air entry bilaterally with prolonged expiration & scattered wheeze all over his chest posteriorly. His oxygen saturation is 92% on room air. The next step in the management of this patient is:

- a. Chest x-ray
- b. Diffusion capacity of the lung for carbon monoxide (DLCO)
- c. Spirometry
- d. Complete blood count
- e. Arterial blood gases

Answer: E

22- A 50-year-old gentleman who's a known case of COPD presented with right pneumothorax. All of the following physical findings are consistent with the diagnosis of pneumothorax EXCEPT:

- a. Increased tactile vocal fremitus on the right side
- b. Hyper-resonance percussion note on the right side ✓
- c. Decreased chest wall movement on the right side ✓
- d. Decreased breath sounds on the right side ✓
- e. Respiratory distress ✓

Answer: A

23- A 67-year-old man presents with dyspnea & pleuritic chest pain that has worsened over the past month. On physical examination you find decreased air entry in the right lower lobe with dullness to percussion. Chest x-ray shows right pleural effusion. Pleural fluid analysis reveals high LDH & high protein. What is the most likely cause of the patient's effusion?

- a. Heart failure ✗
- b. Liver disease ✗
- c. Para-pneumonic effusion
- d. Nephrotic syndrome ✗
- e. Atelectasis

Answer: C

24- All of the following are associated with COPD exacerbation (risk factors & triggers) EXCEPT:

- a. Smoking & air pollution ✓
- b. Severe airflow limitation ✓
- c. BMI of 24 kg/m²
- d. A history of previous exacerbations ✓
- e. Bacterial or viral infection ✓

Answer: C

25- All of the following are known triggers to asthma exacerbation EXCEPT:

- a. GERD ✓
- b. Obesity
- c. Upper respiratory tract infection ✓
- d. Allergens ✓
- e. Cold air ✓

Answer: B

26- A 17-year-old boy presents with a left lower lobe pneumonia. He has a history of recurrent chest infections & of productive cough that occurs everyday. You are told by his parents that he has had "loose stool" since childhood. Upon further investigation, you find out that his vas deferens are absent. What is the most likely diagnosis?

- a. Cystic fibrosis
- b. Primary ciliary dyskinesia
- c. Bronchiolitis
- d. Foreign body aspiration
- e. Acute bronchitis

Answer: A

27- All of the following are true about idiopathic pulmonary fibrosis (IPF) EXCEPT:

- a. No extra-pulmonary manifestation except clubbing ✓
- b. A restrictive intra-pulmonary process is evident on PFTs ✓
- c. Surgical biopsy is used for diagnosis
- d. Lung transplantation is the only therapy that may improve survival ✓
- e. It is typically seen in the 5th decade of life ✓

Answer: C

28- A 57-year-old male patient presented with shortness of breath. He has FEV1 of 45% of predicted, FVC of 50% of predicted, FEV1/FVC of 55%. All of the following can cause such findings EXCEPT:

- a. Bronchiectasis
- b. COPD
- c. Asthma
- d. Kyphoscoliosis**
- e. Bronchiolitis obliterans

Answer: D

29- All of the following are associated with increased risk for OSA EXCEPT:

- a. Obesity
- b. Female gender**
- c. Resistant hypertension
- d. CAD
- e. Depression

Answer: B

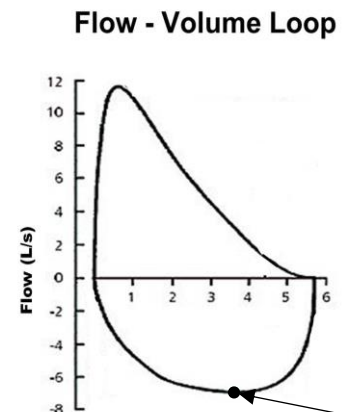
30- All of the following are true about small cell lung carcinoma (SCLC) EXCEPT:

- a. It is the most common cause of malignancy-related SIADH ✓
- b. It is associated with Pancoast tumour**
- c. Cushing syndrome is common in patients with SCLC ✓
- d. It is very responsive to chemotherapy ✓
- e. It is the most common cancer associated with paraneoplastic neurologic syndromes

Answer: B

31- What is the value that the arrow points to?

- a. Peak expiratory flow
- b. Peak inspiratory flow**
- c. Total lung capacity
- d. Residual volume
- e. Forced vital capacity



Answer: B

32- What is the best diagnostic test of asthma?

- a. Spirometry with reversibility
- b. Arterial blood gases
- c. Chest x-ray
- d. Bronchoscopy
- e. Diffusion capacity of the lung for carbon monoxide (DLCO)

Answer: A

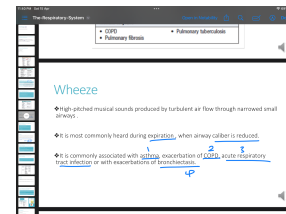
33- What is the best test used for the evaluation of the severity of an asthma attack?

- a. FEV1
- b. FVC
- c. PEF
- d. PIF
- e. DLCO

Answer: C

34- Which of the following doesn't cause wheezing?

- a. IPF
- b. COPD
- c. Bronchitis
- d. Asthma
- e. Cystic fibrosis



Answer: A

35- A 67-year-old gentleman comes to the clinic complaining of increasing fatigue. He said that he'd become short of breath when he bends over. It lasts about 60 seconds with some headache & dizziness. On examination, you find out that his neck veins are dilated with purplish discoloration across the chest. What is the most likely diagnosis?

- a. SVC obstruction
- b. Pneumonia
- c. Angioedema
- d. COPD
- e. Asthma

Answer: A

36- All of the following are associated with normal or high DLCO EXCEPT:

- a. Emphysema
- b. Asthma
- c. Obesity
- d. Chronic bronchitis
- e. Myasthenia gravis

Answer: A

37- A 37-year-old gentleman presents to the emergency department with acute onset breathlessness. He has a history of recurrent respiratory tract infections since childhood. He stated that he & his partner have been seeing a doctor for infertility. On examination, you find out that he has clubbing. Chest x-ray shows dextrocardia. What is the most likely diagnosis?

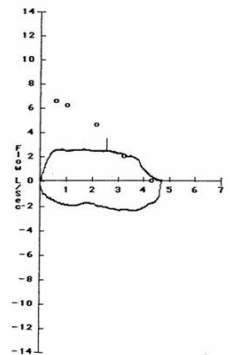
- a. Cystic fibrosis
- b. Primary ciliary dyskinesia
- c. Bronchitis
- d. Allergic bronchopulmonary aspergillosis
- e. α 1-antitrypsin deficiency

Answer: B

38- The following flow volume loop is typical for which one of the following conditions?

- a. Tracheal tumour
- b. Severe emphysema
- c. Interstitial lung disease α
- d. Variable extra-thoracic obstruction
- e. Asthma

Inspiratory & expiratory



Answer: A

39- The following PFT results are consistent with which of the following?

- a. Emphysema
- b. Pneumoconiosis
- c. Atelectasis
- d. Kyphoscoliosis
- e. Myasthenia gravis

	Patient's findings	% predicted
RV	2.5	150% ↑
FEV1	0.76	42% ↓
FVC	1.83	72% ↓
FEV1/FVC	41%	--- ↓ ↓
DLCO	10	30% ↓

Answer: A

40- A 67-year-old gentleman presented to the Emergency Department with Pneumonia. He is awake & oriented. Physical examination showed that he is in pain, Temperature of 40°C , respiratory rate of 28, BP of 85/55 mmHg, Blood urea is 90 mg/dl, and WBC is 25000. The CURB65 score for this patient is:

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

C 2
U 1
R 1
B 1
65 1

Answer: C

41- A 62-year-old gentleman who is a smoker with 26 pack-years came to the clinic complaining of recent onset hemoptysis & hoarseness. He has also had significant unintentional weight loss over the past month. Chest x-ray reveals an upper large mass in the right lung with cavitation. Lab studies show elevated Ca^{+2} . What is the most likely diagnosis?

- a. Squamous cell carcinoma
- b. Adenocarcinoma
- c. Small cell lung carcinoma
- d. Sarcomatoid carcinoma
- e. Neuroendocrine carcinoma

Answer: A

42- A 58-year-old gentleman who is a former smoker presented to the clinic with progressive shortness of breath & dry cough of 6 months. Over the past week he can't walk across the room without getting short of breath. Physical examination is significant for bilateral basal coarse crackles & fingers clubbing. Chest x-ray shows diffuse bilateral infiltrates. What is the most likely diagnosis?

- a. Pneumonia
- b. Interstitial pulmonary fibrosis
- c. Bronchiectasis
- d. COPD
- e. Sarcoidosis

Answer: B

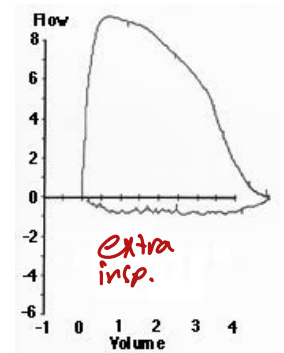
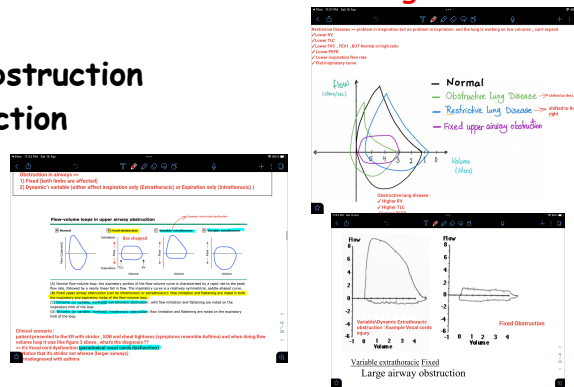
43- A 68-year-old gentleman, who was treated with radiotherapy for Hodgkin's lymphoma 30 years ago, came with pleural effusion yellowish in colour & rich in lymphocytes & atypical cells. He's not a smoker. What is the most likely cause of his effusion?

- a. Adenocarcinoma of the lung
- b. Recurrence of Hodgkin's lymphoma**
- c. Heart failure
- d. Tuberculosis
- e. Para-pneumonic effusion

Answer: B

44- The following FVL is typical for which one of the following conditions?

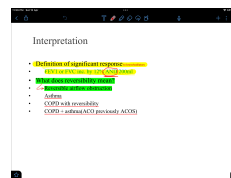
- a. Variable extra-thoracic obstruction**
- b. Fixed upper airway obstruction
- c. Chronic bronchitis
- d. Interstitial lung disease
- e. Asthma



Answer: A

45- Which of the following tests is the most specific for diagnosing asthma?

- a. Reversibility test**
- b. Methacholine challenge test
- c. Arterial blood gases
- d. Skin prick test
- e. CBC & eosinophil count



Answer: A

46- A patient with kyphoscoliosis has a PaO₂ of 45 & PaCO₂ of 65. What is the mechanism of hypoxia in this patient?

- a. Hypoventilation**
- b. V/Q mismatch
- c. Intra-pulmonary shunt
- d. Hypoventilation & V/Q mismatch
- e. Diffusion hypoxia

Answer: A

47- Which of the following volumes doesn't change with severe asthma?

- a. Forced vital capacity α
- b. Residual volume α
- c. Total lung capacity α
- d. FEV1 α
- e. Inspiratory arm of flow volume loop

Answer: E

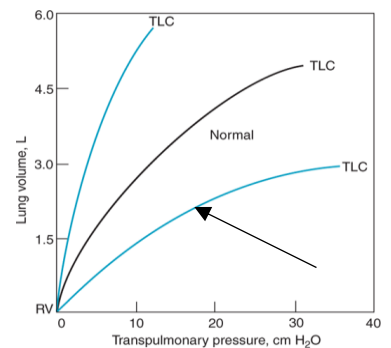
48- A 30-year-old gentleman came to the clinic. He is a non-smoker who is a known case of COPD with emphysema predominance. Which of the following is wrong about this case?

- a. The patient is probably thin ✓
- b. His disease is associated with production of large amount of sputum
- c. On examination, he will have an increased A-P diameter ✓
- d. On examination, you will notice pursed lips appearance ✓
- e. His disease is associated with increased lung compliance ✓

Answer: B

49- Which disease does the following curve represent (the one that the arrow points to)?

- a. Emphysema
- b. Chronic bronchitis
- c. Pulmonary fibrosis
- d. Bronchiolitis obliterans
- e. Asthma



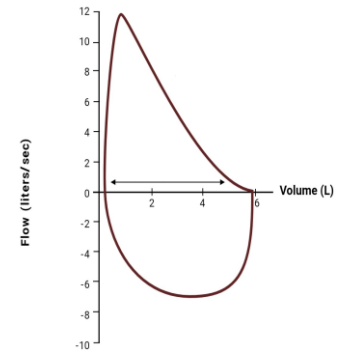
Answer: C

50- What is the mechanism of dyspnea in patients with acute asthma?

- a. Respiratory acidosis
- b. Respiratory alkalosis
- c. Hypoxia
- d. Hypercapnia
- e. Increased work of breathing

Answer: E

51- What does the following interval (indicated by the double-headed arrow) in the flow volume loop represent?



- a. FVC
- b. TLC
- c. FEV1
- d. RV
- e. PEF

Answer: A

52- Which of the following is the least likely to cause pulmonary edema?

- a. Malignant hypertension
- b. Heart failure
- c. Massive pulmonary embolism
- d. Bicuspid regurgitation
- e. Volume overload

التهمة
قلوب

Answer: C

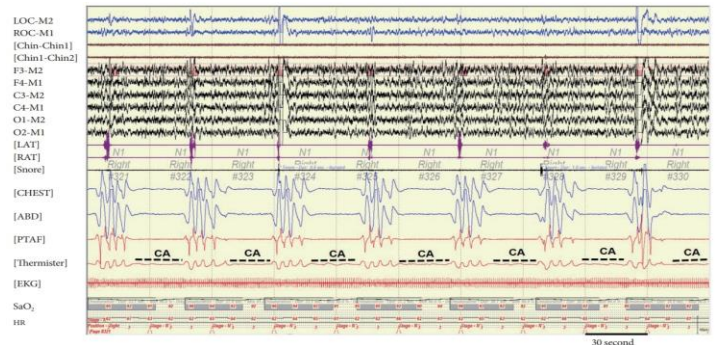
53- Which of the following supports the diagnosis of pulmonary embolism over pneumonia?

- a. Site of pain
- b. Presence of effusion
- c. Loud P2
- d. Elevated CRP & body temperature
- e. Presents with more prominent cough & sputum

Answer: C

54- What is the sleep disturbance seen in this piece of polysomnography?

- a. Obstructive apnea
- b. Central apnea
- c. Upper airway resistance syndrome
- d. Mixed sleep apnea
- e. Hypopnea



Answer: B

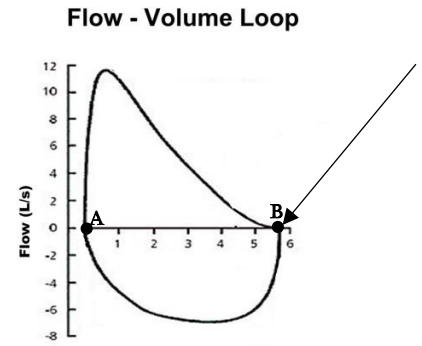
55- What does this point (marked with an arrow) represent in the flow volume loop?

- a. FVC
- b. TLC
- c. PIF
- d. RV
- e. PEF

Further explanation: The answer is D because the question is asking about a point on the graph.

So the test starts from the TLC (point A) & reaches the RV (point B) after full expiration. The volume that was expired is the FVC.

If the question wanted you to answer FVC, it would ask to identify the 'interval' between points A & B (as in question 51).



Answer: D

56- What is the mechanism of hypoxia in COPD patients?

- a. Hypoventilation
- b. V/Q mismatch
- c. Diffusion hypoxia
- d. Pulmonary shunt
- e. Mixed hypoventilation & V/Q mismatch

\uparrow PaCO₂

Answer: E

57- Which of the following findings correspond with the most severe asthma attack?

- a. PaO₂ of 40, PaCO₂ of 43
- b. pH of 7.50, PaO₂ of 65, PaCO₂ of 31
- c. P(A-a)O₂ of 15
- d. FEV₁ of <80% but >60% predicted
- e. Loud wheezing

Answer: A

58- Not a predictor of asthma exacerbation? **Duration of asthma**

59- A case of cough, fever, bilateral hilar lymphadenopathy, what is the diagnosis? **Sarcoidosis**

60- All of the following are true regarding pulmonary embolism EXCEPT: **D-dimer has very good diagnostic importance for high-risk patients**

61- The most significant test for the diagnosis of cystic fibrosis? **Sweat chloride test >60 mmol/L**

62- A patient with bilateral chest infiltrate. What would favour the diagnosis of ARDS rather than cardiogenic edema? **Pulmonary venous wedge pressure of 18**

63- Streptococcus pneumoniae pneumonia, what is wrong? **Poor response to treatment**

64- Alcoholic and smoker with pneumonia, what is wrong? **Blood culture has high yield**

65- Not present in PE? **Loud A2** *نگارت*

66- Not a risk factor for OSA? **Large chin**

67- All of the following are differences between emphysema & chronic bronchitis EXCEPT: **Challenge test (both cause non-reversible obstruction)**

68- Cause of death in asthma patients? **Mucous plug**

69- A patient in the ICU having hypercapnia. What is the most likely cause? **Hypoventilation**

70- Definition of a dead space? **Area not perfused but ventilated normally** *عند*

71- Diagnosis of BKS? **CT scan**

72- How do you diagnose asthma airway limitation? **FEV1/FVC <70% & reversible by 12%**

73- True about asthma? **25% diurnal variability in the PEF**