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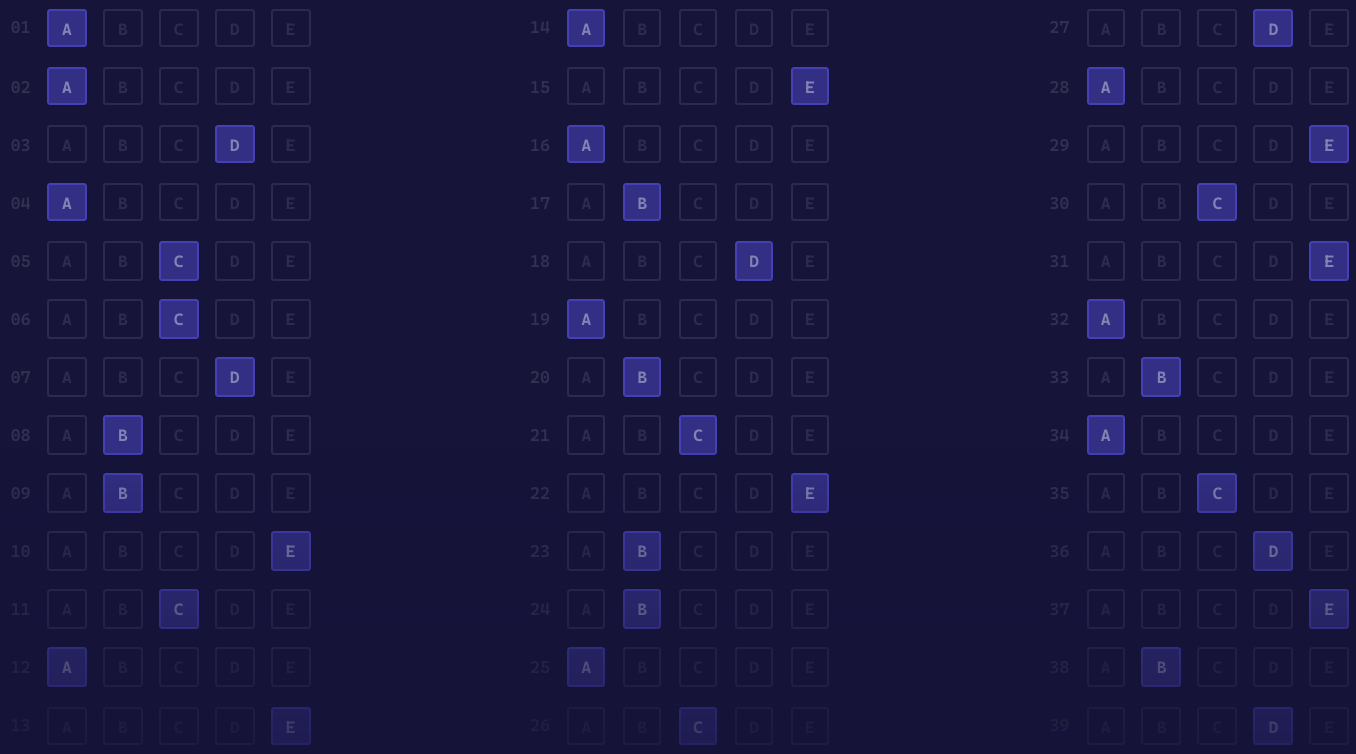

PRACTICE QUESTIONS

State of Qatar Department of Healthcare Professions (DHP) Ministry of Public Health (MOPH)

PULM

Pulmonary

EDITION	QUESTIONS	FORMAT
Demo	9	Limited Edition PDF

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Before you begin

What this is

9 practice questions for State of Qatar Department of Healthcare Professions (DHP) Ministry of Public Health (MOPH) `PULM`, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, `PULM`
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1 SINGLE CHOICE

A 55-year-old man with a 30 pack-year smoking history presents with progressive dyspnea and chronic cough. Spirometry shows an FEV1/FVC ratio of 0.62 with an FEV1 of 58% predicted. Which finding is most consistent with GOLD stage 2 (moderate) chronic obstructive pulmonary disease?

A FEV1 of 30% predicted with chronic respiratory failure

B FEV1 of 58% predicted with the FEV1/FVC ratio below 0.70

C Normal FEV1/FVC ratio with reduced FVC

D FEV1 of 85% predicted with exertional dyspnea

ANSWER B

WHY GOLD staging of COPD is based on post-bronchodilator FEV1 in patients with an FEV1/FVC ratio <0.70. GOLD stage 2 (moderate) is defined by FEV1 between 50% and 79% predicted, which matches the 58% predicted value given. Option A describes GOLD stage 4, option C suggests restrictive disease, and option D reflects GOLD stage 1.

QUESTION 2 SINGLE CHOICE

An arterial blood gas shows pH 7.28, PaCO2 58 mmHg, HCO3- 28 mEq/L, and PaO2 55 mmHg. Which acid-base disturbance is present?

A Acute respiratory acidosis without compensation

B Chronic respiratory acidosis with partial metabolic compensation

C Metabolic acidosis with respiratory compensation

D Acute respiratory alkalosis

ANSWER B

WHY The low pH (7.28) and elevated PaCO2 (58 mmHg) indicate a primary respiratory acidosis. The HCO3- is elevated to 28 mEq/L, which is greater than the small rise expected in acute respiratory acidosis (1 mEq/L per 10 mmHg rise in PaCO2), indicating that renal compensation has had time to develop — consistent with chronic respiratory acidosis with partial metabolic compensation. Concurrent hypoxemia (PaO2 55 mmHg) is common in such patients.

QUESTION 3 SINGLE CHOICE

According to GINA stepwise therapy, which controller regimen is most appropriate as initial maintenance treatment for an adult with moderate persistent asthma (Step 3)?

A Low-dose inhaled corticosteroid taken only when symptoms occur (SABA as needed)

B Low-dose inhaled corticosteroid-formoterol as needed as the only therapy

C Low-dose inhaled corticosteroid plus long-acting beta2-agonist daily

D High-dose inhaled corticosteroid plus oral prednisone daily

ANSWER C

WHY GINA Step 3 (preferred controller) for adults and adolescents is a low-dose ICS-LABA combination taken daily as maintenance, with a SABA as reliever (or low-dose ICS-formoterol as reliever). Option A describes Step 1 (which now uses as-needed low-dose ICS-formoterol). Option B describes an as-needed-only regimen. Option D describes Step 5 therapy.

QUESTION 4 SINGLE CHOICE

A 35-year-old immigrant from a high TB-prevalence country has a productive cough for 6 weeks, night sweats, and weight loss. Chest radiograph shows apical cavitary lesions. Which initial diagnostic test most reliably confirms active pulmonary tuberculosis?

A Tuberculin skin test (TST) alone

B Sputum smear for acid-fast bacilli (AFB) and nucleic acid amplification testing (NAAT)

C Serum interferon-gamma release assay (IGRA)

D Complete blood count and ESR

ANSWER B

WHY Active pulmonary TB is microbiologically confirmed by demonstrating Mycobacterium tuberculosis in respiratory specimens. Current guidelines recommend at least one sputum sample for AFB smear microscopy plus a rapid molecular test (NAAT, such as Xpert MTB/RIF) for initial confirmation and rifampicin-resistance detection. TST and IGRA only indicate infection, not active disease. CBC and ESR are non-specific.

QUESTION 5 SINGLE CHOICE

An otherwise healthy 40-year-old outpatient presents with fever, pleuritic chest pain, and a lobar consolidation on chest X-ray. According to ATS/IDSA guidelines, which is the most appropriate empirical antibiotic regimen for outpatient community-acquired pneumonia?

A Piperacillin-tazobactam plus vancomycin

B **Amoxicillin OR doxycycline OR a macrolide (in areas with low resistance)**

C Linezolid plus ciprofloxacin

D Imipenem-cilastatin plus amikacin

ANSWER **B**

WHY ATS/IDSA 2019 guidelines recommend amoxicillin, doxycycline, or a macrolide (where pneumococcal macrolide resistance is <25%) for healthy outpatients without comorbidities or risk factors for drug-resistant pathogens. Options A and D are recommended for severe inpatient CAP. Option C is not a standard empirical CAP regimen.

QUESTION 6 SINGLE CHOICE

A 60-year-old man has a unilateral pleural effusion. Thoracentesis fluid analysis shows pleural fluid protein 1.0 g/dL (serum 6.5), pleural fluid LDH 85 U/L (serum 280, upper limit of normal 200), and pleural fluid-to-serum LDH ratio of 0.30. These findings are most consistent with which type of effusion?

A Exudate by Light's criteria

B Transudate by Light's criteria

C Empyema

D Chylothorax

ANSWER B

WHY Light's criteria classify an effusion as exudative if ANY of the following are met: pleural/serum protein >0.5, pleural LDH >2/3 the upper limit of normal serum LDH, or pleural/serum LDH >0.6. Here the protein ratio is ~0.15, pleural LDH 85 U/L is below 2/3 of the upper limit of normal (133), and the LDH ratio is 0.30 — none of Light's criteria are met, so the effusion is a transudate. Empyema would show grossly purulent fluid with very high LDH and low glucose; chylothorax is diagnosed by triglycerides >110 mg/dL or presence of chylomicrons.

QUESTION 7 SINGLE CHOICE

A 62-year-old postoperative patient develops sudden pleuritic chest pain, dyspnea, and tachycardia. CT pulmonary angiography confirms a segmental pulmonary embolism with right ventricular function that appears normal on echocardiography, and the patient is hemodynamically stable with normal blood pressure. According to current guideline-based initial therapy, which is the most appropriate immediate management?

A Systemic thrombolysis with alteplase

B **Anticoagulation with a direct oral anticoagulant (e.g., rivaroxaban or apixaban) or low-molecular-weight heparin**

C Inferior vena cava filter as first-line therapy

D Surgical pulmonary embolectomy

ANSWER **B**

WHY Hemodynamically stable PE without RV dysfunction (low-risk PE) is treated with standard anticoagulation. Current ESC/CHEST guidelines support DOACs (apixaban, rivaroxaban, dabigatran, edoxaban) as first-line in suitable patients, with LMWH as an alternative. Systemic thrombolysis is reserved for hemodynamic instability (high-risk PE). IVC filter is reserved for contraindications to anticoagulation. Embolectomy is for massive PE when thrombolysis is contraindicated or fails.

QUESTION 8 SINGLE CHOICE

A 70-year-old man presents with progressive dyspnea and dry cough. Examination reveals bibasilar fine inspiratory crackles ('Velcro' rales) and digital clubbing. High-resolution CT of the chest shows bilateral, peripheral, subpleural reticular opacities with honeycombing and traction bronchiectasis, predominantly in the lower lobes. Which is the most likely diagnosis?

A **Usual interstitial pneumonia pattern of idiopathic pulmonary fibrosis**

B Sarcoidosis

C Hypersensitivity pneumonitis

D Pulmonary Langerhans cell histiocytosis

ANSWER **A**

WHY The combination of an elderly patient with progressive dyspnea, dry cough, Velcro crackles, clubbing, and HRCT showing basal/peripheral subpleural reticulation with honeycombing is classic for the UIP pattern of idiopathic pulmonary fibrosis. Sarcoidosis typically shows perihilar/upper-lobe nodules and lymphadenopathy. Hypersensitivity pneumonitis shows ground-glass and centrilobular nodules with mosaic attenuation and air-trapping. PLCH is associated with smoking and shows upper-lobe cysts and nodules.

QUESTION 9 MULTIPLE CHOICE

Which of the following spirometry findings are characteristic of obstructive ventilatory defect? (Choose two.)

A **FEV1/FVC ratio below 0.70**

B FEV1/FVC ratio at or above 0.70 with reduced FVC

C **Reduced peak expiratory flow with concave flow-volume loop**

D Normal or increased FEV1 with reduced FVC

ANSWER **A · C**

WHY An obstructive ventilatory defect is defined by a reduced FEV1/FVC ratio (<0.70 by GOLD criteria). The flow-volume loop in obstruction shows a rapid initial peak with a concave (scooped-out) expiratory limb and reduced peak expiratory flow. A reduced FVC with preserved FEV1/FVC ratio is suggestive of restriction (options B and D).