



Test Prep

RPFT

Registered Pulmonary Function Technologist

QUESTION & ANSWERS

Exam A

QUESTION 1

The following results are obtained:

	<u>Actual</u>	<u>Predicted</u>
TLC	6.0 L	6.2 L
FRC	2.2 L	3.0 L
VC	4.8 L	5.0 L

The RV/TLC ratio from these data is consistent with which of the following?

- A. Obstructive defect
- B. Normal lung volumes
- C. Combined obstructive/restrictive defect
- D. Restrictive defect

Correct Answer: A

QUESTION 2

During an exercise study, a pulmonary function technologist notices the systolic blood pressure increased to 270 mm Hg using an automated cuff. Which of the following should the technologist do?

- A. Terminate the test and administer oxygen by nasal cannula.
- B. Continue the test and recheck blood pressure using manual cuff method.
- C. Terminate the test at this time and recheck blood pressure.
- D. Continue the test if within 5 minutes of completion.

Correct Answer: A

QUESTION 3

The following values are reported at maximum effort for a 50-year-old, 70-kg (154-lb) male with significant coronary artery disease during ergometer stress testing. Which of the following is most likely an error?

- A. workload 200 watts
- B. VE65L/min
- C. HR145/min
- D. RER1.2

Correct Answer: A

QUESTION 4

During the calibration and set-up of the metabolic stress testing system for a patient breathing supplemental

oxygen, which of the following gas concentrations will ensure accurate calibration of the system?

	<u>5% CO₂</u>	<u>10% CO₂</u>	<u>15% O₂</u>	<u>26% O₂</u>
A.	yes	no	yes	yes
B.	no	yes	no	no
C.	no	yes	yes	no
D.	yes	no	no	yes

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: D

QUESTION 5

A pulmonary function technologist is performing an exercise (stress) test on a patient with severe COPD. As the test progresses, the patient shows signs of increasing dyspnea. Measurements of inspiratory capacity decreased from 2.0 L to 1.5 L. Which of the following most likely occurred?

- A. dynamic hyperinflation
- B. disconnected gas sampling line
- C. drift in the flow transducer
- D. acute decrease in FRC

Correct Answer: D

QUESTION 6

A pulmonary function technologist can calculate which of the following if values for pH, PaO₂, SaO₂, SvO₂, PvO₂, VO₂, and Hb are obtained?

- A. Cardiac output
- B. RER
- C. VD/VT
- D. Stroke volume

Correct Answer: A

QUESTION 7

A 9-year-old girl had an FVC of 2.35 L 1 year ago. She was 122 cm (4 ft) tall and weighed 29.5 kg (65 lb). Her current height is 127 cm (4 ft 2 in), and her weight is 34 kg (75 lb). The current FVC measurement is

2.20 L. The quality of both tests met ATS/ERS goals. A pulmonary function technologist should conclude the change is

- A. Not significant since it is less than a 15% decrease.
- B. Not significant since it is within normal test variability.
- C. Significant since a decline is not expected.
- D. Significant since her weight has changed.

Correct Answer: C

QUESTION 8

Which of the following may cause a reduction in end-tidal CO₂?

- A. Increased VD/VT ratio
- B. Anxiety-induced hyperventilation
- C. Exercise below the anaerobic threshold
- D. Eating a high-protein diet

Correct Answer: B

QUESTION 9

During a cardiopulmonary stress test using breath-by-breath gas analysis, a pulmonary function technologist notices that the VO₂ suddenly decreases. Which of the following may explain this change?

- 1. The patient has achieved anaerobic threshold.
 - 2. The measurement of the expired gas volumes is inaccurate.
 - 3. O₂ analyzer "phase delay" has increased.
 - 4. There is a leak in the tubing or mouthpiece.
- A. 1, 3, and 4 only
 - B. 1, 2, and 3 only
 - C. 1, 2, and 4 only
 - D. 2, 3, and 4 only

Correct Answer: A

QUESTION 10

A comparison of two techniques for measuring Rawis shown below:

<u>Subject</u>	<u>R_{aw} Panting</u>	<u>R_{aw} Quiet Breathing</u>
	<u>(cm H₂O/L/sec)</u>	<u>(cm H₂O/L/sec)</u>
1	0.8	2.1
2	2.4	3.2