

## **Topic Test - Unit 1.1.d - The cardiovascular and respiratory system**

1. Which of the following statements correctly describes the passage of air into the lungs? (1)
    - a. Nose and mouth, trachea, bronchioles, alveoli
    - b. Bronchi, trachea, bronchioles, alveoli
    - c. Nose and mouth, bronchi, bronchioles, ribs
    - d. Nose and mouth, alveoli, bronchi, trachea
  
  2. The amount of blood leaving the left ventricle **per beat** is the definition of which term? (1)
    - a. Heart rate
    - b. Cardiac output
    - c. Stroke volume
    - d. Tidal volume
  
  3. What is the definition of minute ventilation? (1)
    - a. The amount of air a person breathes in per breath
    - b. The amount of air a person breathes out per breath
    - c. The amount of blood leaving the left ventricle per minute
    - d. The amount of air a person breathes in a minute
  
  4. Which of these performers would primarily be working aerobically? (1)
    - a. 100m sprinter
    - b. 1500m runner
    - c. Shot put thrower
    - d. High jumper
  
  5. Define cardiac output. (1)
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Name: \_\_\_\_\_

6. Blood is circulated around the body.

a. Name the type of blood vessel that returns the blood to the heart. (1)

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b. This type of blood vessel contains valves. What is the function of these valves?  
(1)

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7. Breathing enables gaseous exchange to occur at the alveoli. Describe how two features of the alveoli assist in gaseous exchange. (2)

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8. The data in the table was taken from when Marcus is at rest and then exercising.

Discuss what has happened to the figures in the table and why this has occurred. (4)

	Heart Rate (bpm)	Stroke Volume (ml)	Breathing Rate (breaths per minute)
At rest	62	60	16
During exercise	152	140	42

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