Science Revised Syllabus
Junior Certificate
Higher Level

Past Exam Questions on
B Breathing System

Q3 Part (c) 2013

(*c*) When a cigarette burns it releases smoke that contains about 4,000 chemicals. Hundreds of these chemicals are highly dangerous.

Tar, nicotine and carbon monoxide are three of these harmful substances. Describe the damaging effect of one of these three substances on a named organ. (6)

Substance _____

Organ _____

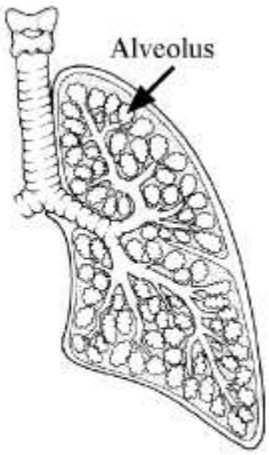
Effect _____

(*d*) Name an appliance in the house that may produce carbon monoxide. (3)

Name _____

Q1 Part (h) 2010

(*h*) The diagram shows the internal structure of a human lung. There are about 350 million alveoli per lung.



Describe clearly the *exchange of gases* that occur between the *air in the alveoli* and the *bloodstream*.

Describe _____

_____

_____

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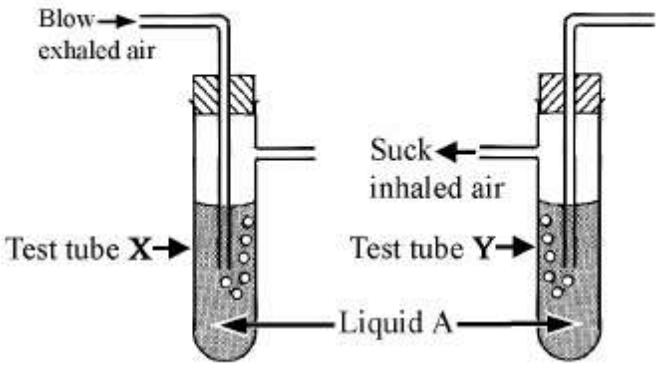
(7 × 6 + 1 × 10)

Q2 Part (b) 2009

(*b*) The diagram shows the apparatus used by a pupil when performing an experiment in a school laboratory.



The pupil blew (exhaled) air into test tube **X**.

The pupil sucked (inhaled) air from test tube **Y**.

The pupil continued, alternately, blowing and sucking air, as above, until *liquid* **A** in *one* of the test tubes *turned milky*.

(*i*) Name *liquid* **A**. (3)

Name _____

(*ii*) In *which test tube*, **X** or **Y**, did the *liquid turn milky*? (3)

Which? _____

(*iii*) Why did *liquid* **A** *turn milky* in *one* of the test tubes? (3)

Why? _____

(*iv*) What *conclusion* can be made from the *result of this experiment* regarding the *difference in composition between exhaled and inhaled air*? (3)

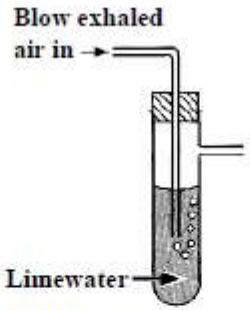
Conclusion? _____

(*v*) Complete the *word equation*, below, for *aerobic respiration*. (6)

Food + _____ ⟶ _____ + energy + water

Q1 Part (d) 2006

(*d*) The diagram is of an apparatus used to show that *exhaled air contains carbon dioxide*. When performing this experiment *a control is required* to show that inhaled air contains *less* carbon dioxide than exhaled air. ***Describe, using a labelled diagram, a suitable control procedure.***

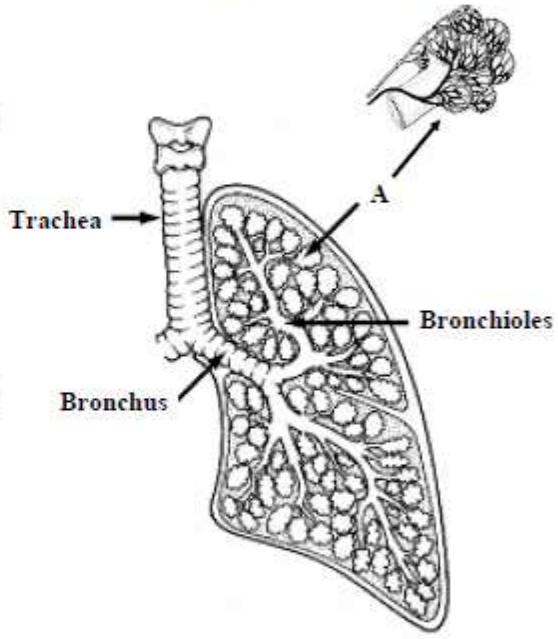


Labelled diagram

Q2 Part (a) 2006

Question 2 (39)

(*a*) The diagram shows the structure of a human lung. Air passes in and out of the lungs, via the trachea, bronchi and bronchioles. *Gaseous exchange* takes place in the structures labelled **A**.



(*i*) Name *structure* **A**. (3)

_____

(*ii*) How does *gaseous exchange* take place in the structures labelled **A**? (6)

_____

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