

- 2 (a) CAN AWARD ROLE WITHOUT CORRECT NAME
CAN ACCEPT RIB CAGE IN B AND V.V.

part	name	role in breathing in
A ↑ ↓	ribs; Ⓐ rib cage	prevent collapse of thoracic cavity or lungs AW (as a result of pressure changes) AW/ ref. to attachment of muscles/ move up to + increase volume/decrease pressure; R space
B	intercostal muscle;	contracts + to move ribcage up or out/to increase volume of chest cavity or lungs AW/decrease pressure; Ⓐ refs to internal intercostals
C	diaphragm ;	contracts/moves downwards + to increase volume of chest cavity AW/decrease pressure ; Ⓐ ref. to 'space'

max. [6]

(b)(i)

- ref. to cilia + beat/move AW; Ⓐ refs to hairs Ⓐ cilia trap germs
- to move dust/mucus + up or out (of bronchus);
- ref. to secretion/production + of mucus;
- ref. to sticky nature AW;
- to trap + dust/bacteria; (linked to mucus)

max. [4]

(ii) NO MARK FOR AFFECT WITHOUT CORRECT NAMED SUBSTANCE
1 MARK FOR THE SUBSTANCE, 1 MARK FOR EFFECT

Ⓐ carbon monoxide

- nicotine;
- cilia + become paralysed/stop working AW ; Ⓐ killed
- cilia unable to remove mucus from + bronchi/airways AW;
- cell lining AW can be infected by trapped microbes;

- tar;
- ref. to cells become cancerous AW;
- increased production of mucus;
- cilia + become paralysed/stop working AW; Ⓐ killed

- carbon particles;
- increased production of mucus;

max. [2]

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Total: [12]
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