

MCQ Week 12

1	With regard to Carotid Bodies
A	There are usually 2 or 3 at each carotid bifurcation
B	Contain Type 2 cells which release catecholamines upon exposure to hypoxia and cyanide
C	Have a blood flow of about 2ml/min each
D	Are not stimulated in conditions such as anaemia and carbon monoxide poisoning
E	Elevated K ⁺ decreases the rate of discharge in the chemoreceptor afferents
Answer	D
Explanation	D True – normal amount of dissolved O ₂ but decreased total O ₂ Only 1 at each carotid bifurcation; Type 1 (Glomus cells) cells release catecholamines (chiefly dopamine); Blood flow is about 0.04ml/min each; Hyperkalaemia causes increased discharge (hyperpnea)
Subject	Physiology
Category	Regulation of Respiration
Reference: Text Edition Page	Ganong 21 st 677-679

2	Which of the following are NOT typical changes during exercise
A	There is an initial abrupt increase in ventilation followed by a pause then a more gradual increase
B	PO ₂ of blood flowing into the pulmonary capillaries is increased to about 45mmHg
C	The PCO ₂ falls with high level exercise
D	The Hb dissociation curve shifts to the right
E	Total O ₂ entering the blood increases from 250 to 4000ml/min
Answer	B
Explanation	PO ₂ decreases to about 25mmHg which results in greater alveolar-capillary gradient and more O ₂ entering the blood
Subject	Physiology
Category	Respiratory Adjustments in Health and Disease
Reference: Text Edition Page	Ganong 21 st 685-687