

**NR507 / NR 507:
Advanced
Pathophysiology
Midterm Exam
(2022/2023)
Chamberlain College
Of Nursing**

NR 507 Advanced Pathophysiology Midterm Exam

Score for this quiz: **118** out of 120

Question 1

2 / 2 pts

The lung is innervated by the parasympathetic nervous system via which nerve?



Vagus



Phrenic



Brachial



Pectoral

Fibers of the parasympathetic division of the autonomic nervous system (ANS) travel only in the vagus nerve to the lung.

Question 2

2 / 2 pts

What is the action of urodilatin?



Urodilatin causes vasoconstriction of afferent arterioles.



It causes vasodilation of the efferent arterioles.



Urodilatin inhibits antidiuretic hormone secretion.



It inhibits salt and water reabsorption.

Urodilatin (a natriuretic peptide) inhibits sodium and water reabsorption from the medullary part of collecting duct, thereby producing diuresis. It is not involved in the actions described by the other options.

Question 3

2 / 2 pts

What is the direct action of atrial natriuretic hormone?



Sodium retention



Sodium excretion



Water retention



Water excretion

Atrial natriuretic peptide (ANP) and brain natriuretic peptide (BNP) inhibit the secretion of renin, inhibit angiotensin-induced secretion of aldosterone, vasodilate the afferent and constrict the efferent glomerular arterioles, and inhibit sodium and water absorption by kidney tubules. The other actions are not a result of the atrial natriuretic hormone.

Question 4

2 / 2 pts

Which statement best describes a Schilling test?



Administration of radioactive cobalamin and the measurement of its excretion in the urine to test for vitamin B₁₂ deficiency

- Measurement of antigen-antibody immune complexes in the blood to test for hemolytic anemia
 - Measurement of serum ferritin and total iron-binding capacity in the blood to test for iron deficiency anemia
 - Administration of folate and measurement in 2 hours of its level in a blood sample to test for folic acid deficiency anemia.
- The Schilling test indirectly evaluates vitamin B₁₂ absorption by administering radioactive B₁₂ and measuring excretion in the urine. This selection is the only option that accurately describes a Schilling test.

Question 5

2 / 2 pts

Hemolytic disease of the newborn (HDN) can occur if the mother:

- Is Rh-positive and the fetus is Rh-negative
- Is Rh-negative and the fetus is Rh-positive
- Has type A blood and the fetus has type O
- Has type AB blood and the fetus has type B

HDN can occur only if antigens on fetal erythrocytes differ from antigens on maternal erythrocytes. Maternal-fetal incompatibility exists only if the mother and fetus differ in ABO blood type or if the fetus is Rh-positive and the mother is Rh-negative. This erythrocyte incompatibility does not exist in any of the other options.

Question 6

2 / 2 pts

Which T-lymphocyte phenotype is the key determinant of childhood asthma?

Cluster of differentiation (CD) 4 T-helper Th₁ lymphocytes

CD4 T-helper Th₂ lymphocytes

CD8 cytotoxic T lymphocytes

Memory T lymphocytes

Asthma develops because the Th₂ response (in which CD4 T-helper cells produce specific cytokines, such as interleukin [IL]-4, IL-5, and IL-13) promotes an atopic and allergic response in the airways. This selection is the only option that accurately identifies the appropriate T-lymphocyte phenotype.

Question 7

2 / 2 pts

Perceived stress elicits an emotional, anticipatory response that begins where?

Prefrontal cortex

Anterior pituitary

Limbic system