

NURS 611 EXAM 2 PATHO2023-2024 (MARYVILLE UNIVERSITY)
ACTUAL EXAM COMPLETE 100 QUESTIONS AND ANSWERS WITH RATIONALES | ALREADY
GRADED A+

1. Review: the parasympathetic system is all about what?

Conserving energy, digesting, metabolism, and rest

2. The sympathetic nervous system primarily serves to protect an individual by doing which of the following? (*select all that apply*)

- A. Decreasing mucous production
- B. Increasing blood sugar levels
- C. Increasing body temperature
- D. Decreasing sweat excretion
- E. Increasing blood pressure

Increases blood sugar levels, increases body temperature, and increases blood pressure

In general, sympathetic stimulation promotes responses that are concerned with the protection of the individual, which include increasing glucose, body temp, and BP.

3. Review: the sympathetic system is all about what?

It's all about mobilizing energy stores, for instance glucose to muscles, decreased release of insulin, redirects blood supply from the gut to the muscles, heart, and lungs.

4. Which characteristic is the most critical index of nervous system dysfunction?

Level of consciousness

LOC is the most critical clinical index of nervous system function or dysfunction. An alteration in consciousness indicates either improvement or deterioration of a person's condition.

5. Thought and goal-oriented behaviors are functions of which area of the brain?

Prefrontal lobe

The prefrontal area is responsible for goal-oriented behavior such as the ability to concentrate, short-term or recall memory, and the elaboration of thought and inhibition on the limbic (emotional) areas of the CNS.

6. Where is the region responsible for the motor aspects?

Broca area in the frontal lobe

Broca speech area is the only region responsible for the motor aspects of speech.

7. Parkinson and Huntington diseases are associated with defects in which area of the brain?

Basal ganglia

8. Maintenance of a constant internal environment and the implementation of behavioral patterns are main functions of which area of the brain?

Hypothalamus

Hypothalamic function falls into 2 major areas: 1) maintenance of a constant internal environment, and 2) implementation of behavioral patterns.

9. What parts of the brain mediate the expression of affect, both emotional and behavioral states?

Limbic system and prefrontal cortex

10. Reflex activities concerned with heart rate, blood pressure, respirations, sneezing, swallowing, and coughing are controlled by which area of the brain?

Medulla oblongata

The medulla oblongata makes up the myelencephalon and is the lowest portion of the brainstem.

11. Which area of the brain assumes the responsibility for conscious and unconscious muscle synergy and for maintaining balance and posture?

Cerebellum

12. The brain receives approximately what percentage of the cardiac output?

20% or 800 to 1000 ml of blood flow per minute

13. What evidence does the nurse expect to see when a patient experiences trauma to the hypothalamus? (*select all that apply*)

- A. Uneven expression of mood
- B. Unstable blood glucose levels
- C. Poor regulation of body temperature
- D. Visual disturbances such as blurred vision
- E. N/V and symptoms of gastroesophageal reflux disease

Uneven expression of mood, unstable blood glucose levels, and poor temp regulation

The hypothalamus forms the base of the diencephalon. Hypothalamic function controls autonomic nervous system function, regulation of body temp, endocrine function (glucose levels), and regulation of emotional expression.

14. What is the first defense of our bodies?

Skin and mucous membranes

15. Which action is the purpose of the inflammatory process?

To prevent infection of the injured tissue

If the epithelial barrier is damaged, then a highly efficient local and system response (inflammation) is mobilized to limit the extent of damage, to protect against infection, and to initiate the repair of damaged tissue.

16. What are the 4 cardinal signs of infection?

Edema (tumor), warmth (calor), redness (rubor), and pain (dolor).

There is a 5th sign known as loss of function (functio laesa) but Dr. Wunderlich did not mention this.

17. Which type of white blood cell is first to arrive at the site of infection?

Leukocytes

18. What causes the edema that occurs during the inflammatory process?

Increased capillary permeability

The increased flow and capillary permeability result in a leakage of plasma from the vessels, causing swelling in the surrounding tissue and is solely responsible for inflammation-induced edema.

19. What process causes heat and redness to occur during the inflammatory process?

Vasodilation of blood vessels

The increased blood flow, as a result of vasodilation and increasing concentration of red cells at the site of inflammation cause locally increased warmth and redness.

20. The chemotactic factor affects the inflammatory process by?

Directing leukocytes to the inflamed area

Two chemotactic factors, neutrophil chemotactic factor (NCF) and eosinophil *chemotactic factor* of anaphylaxis (ECF-A), are released during mast cell degranulation. NCF attracts neutrophils (a type of leukocytes), and ECF-A attracts eosinophils to the site of inflammation.

21. What is pain mediated by?

Histamines, bradykinins, leukotrienes, and prostaglandins

22. The function of opsonization related to the complement cascade is to:

Tag the pathogenic microorganisms for destruction by neutrophils and macrophages.

C3b adheres to the surface of a pathogenic microorganism and serves as an efficient opsonin. Opsonins are molecules that tag microorganisms for destruction by cells of the inflammatory system, primarily neutrophils and macrophages.

23. During phagocytosis what is occurring during the step referred to as opsonization?

Phagocytes recognize and adhere to the bacteria

During phagocytosis, opsonization involves only the recognition and adherence of phagocytes to bacteria.

24. What is the correct sequence of phagocytosis?

Recognition (opsonization), engulfment, fusion, and destruction

Once the phagocytic cell enters the inflammatory site, the only correct sequence of phagocytosis involves *opsonization* or recognition of the target and *adherence* of the phagocyte to it, *engulfment*, or ingestion or endocytosis, and the formation of phagosome, *fusion* with lysosomal granules within the phagocyte and *destruction* of the target.

25. Which manifestations of inflammation is systemic?

Fever and leukocytosis

The only primary *systemic* changes associated with the acute inflammatory response are fever, leukocytosis (a transient increase in circulating leukocytes), and increased levels in circulating plasma proteins.

26. The acute inflammatory response is characterized by fever that is produced by the hypothalamus being affected by?

Endogenous pyrogens

Fever-causing cytokines are known as *endogenous pyrogens*.

27. When considering white blood cell differentials, acute inflammatory reactions are related to elevations of which leukocyte?

- A. Monocytes
- B. Eosinophils
- C. Neutrophils
- D. Basophils

Neutrophils