Pathophysiology Concepts Practice Test

1. Describe the symptoms associated with mitral regurgitation and their significance

- Symptoms include fatigue and dizziness, indicating anemia.
- ✓ **Symptoms include shortness of breath and jugular vein distention, indic**
- Symptoms include cough and wheezing, indicating pulmonary issues.
- Symptoms include chest pain and palpitations, indicating arrhythmias.

2. What is the characteristic of Stage II heart failure?

- No limitation
- Severe limitation with symptoms at rest
- Moderate limitation with symptoms on less than ordinary activity
- ✓ **Mild limitation with symptoms on exertion**

3. What is the primary purpose of measuring diffusing capacity in lung function tes

- To measure lung volume capacity.
- To evaluate airway resistance.

- To determine oxygen saturation levels.
- ✓ **To assess gas exchange efficiency in the lungs.**

4. What is the primary benefit of pursed-lip breathing for patients with emphysema

- ○ Increases inhalation
- ○ Reduces coughing
- ✓ ◉ **Improves expiration**
- ○ Enhances oxygen intake

5. This subtype of macrocytic anemia is due to deficiency or impairment of utilizatio folate

- ○ non-megaloblastic
- ✓ ◉ **megaloblastic**

6. Describe the role of E. coli in urinary tract infections and why it is a common p

- ○ coli is rarely found in urinary tract infections and is not a significant patho
- ✓ ◉ **coli is a common pathogen in urinary tract infections due to its ability the urinary tract lining and its prevalence in the gastrointestinal trac**
- ○ coli is only found in the bloodstream and does not affect the urinary tra
- ○ coli is primarily responsible for respiratory infections, not urinary tract in

7. Which of the following is a cause of vitamin B-12 deficiency?

- High levels of vitamin D

✓ **Absence of intrinsic factor**

- Increased intake of vitamin B-12
- Excessive absorption of vitamin B-12

8. Describe the relationship between left-sided heart failure and pulmonary edem

- Left-sided heart failure has no impact on fluid levels in the lungs.

✓ **Left-sided heart failure leads to increased pressure in the pulmonary causing fluid to leak into the lungs.**

- Left-sided heart failure causes the lungs to produce excess mucus, lead pulmonary edema.

- Left-sided heart failure decreases blood flow to the lungs, preventing fluid ac

9. What type of hypersensitivity is exemplified by contact dermatitis?

✓ **Type 4 hypersensitivity**

- Type 1 hypersensitivity
- Type 3 hypersensitivity
- Type 2 hypersensitivity

10. If a patient with aplastic anemia presents with an MCV of 85, what does this indi
blood cell morphology and potential treatment considerations?

- ○ It indicates a severe deficiency in red blood cells, requiring immediate transfusion.
- ○ It indicates macrocytic anemia, suggesting vitamin B12 de treatment is needed.
- ✓ ◉ **It indicates that the red blood cells are of normal size, suggesting th focus on stimulating bone marrow production rather than addressin**
- ○ It indicates microcytic anemia, suggesting iron supplementation is neces

11. Describe the significance of cardiac output in relation to overall cardiovascular

- ○ Cardiac output is only important during exercise and has no effect at re
- ○ Cardiac output is irrelevant to cardiovascular health and only relates to
- ✓ ◉ **Cardiac output is crucial as it determines the amount of blood delive affecting oxygen and nutrient supply.**
- ○ Cardiac output is a measure of blood pressure in the arteries.

12. What is the definition of cardiac output?

- ✓ ◉ **The volume of blood pumped from each ventricle per minute.**
- ○ The amount of oxygen carried by the blood.

- The total volume of blood in the circulatory system.

- The pressure exerted by circulating blood on the walls of blood vessels

13. The most common cause of urinary tract obstruction is:

- pregnancy
- tumors
- benign prostatic hypertrophy
- ✓ **renal calculi**

14. A nurse instructs a client diagnosed with COPD to use pursed-lip breathing. The the advantage of this kind of breathing. The nurse answers that the main purpos achieve maximum exhalation.

- Prevent bronchial collapse
- ✓ **Achieve maximum exhalation**
- Allows air trapping
- Strengthen the intercostals muscle

15. Describe how pursed-lip breathing can affect a patient with a respiratory cond as emphysema.

- Pursed-lip breathing increases the rate of breathing, which helps in oxy

absorption. - Pursed-lip breathing helps in the diagnosis of respiratory c

✓ ◉ **Pursed-lip breathing improves expiration and reduces air trapping, fa better airflow.**

○ Pursed-lip breathing decreases the need for medication in respiratory p

16. Type 1 Hypersensitivity-Allergic -IgE reactions: _____ = Severe system reaction; such as wheezing and shortness of breath as bronchioles constrict; edema- ai

✗ ◉ **Anaphylactic shock**

✓ ○ **Anaphylactic reaction**

17. What is the primary cause of pre-renal failure?

○ Obstruction in the urinary tract

✓ ◉ **Sudden reduction in blood flow to the kidneys**

○ Chronic kidney disease

○ Intrinsic kidney damage

18. Describe how pre-renal failure impacts kidney function without causing intrinsic

○ Pre-renal failure results in increased urine output and kidney regeneratic

✓ ◉ **Pre-renal failure leads to renal hypoperfusion, which results in loss o function without intrinsic kidney damage.**

○ Pre-renal failure is characterized by inflammation of the kidney tissues.

- Pre-renal failure causes direct damage to kidney tissues, leading to ren

19. Regarding hypersensitivity, contact dermatitis is_____.

- ✓ **Type 4**
- Type 3
- Type 1
- Type 2

20. What term describes the resistance the heart must overcome to eject blood d

- Cardiac output
- ✗ **Preload**
- ✓ **Afterload**
- Stroke volume

21. Which bacterium is most frequently associated with urinary tract infections?

- Clostridium
- Staphylococcus aureus
- Salmonella
- ✓ **E. coli**

22. What happens to a person with emphysema?

- ✓ **Air is trapped in the alveoli**
- The body gets too much oxygen
- The alveoli shrink
- Sputum produced is clear

23. Describe the physical characteristics of red blood cells in macrocytic megalob

- The red blood cells are smaller than normal.
- ✓ **The red blood cells are larger than normal.**
- The red blood cells are fragmented.
- The red blood cells are irregularly shaped.

24. : Which diagnostic test is essential to confirm the diagnosis of asthma and distin obstructive lung diseases?

- Chest X-ray
- Electrocardiogram (ECG)
- ✓ **Pulmonary function tests (PFTs)**
- Complete blood count (CBC)

25. A patient presents with symptoms of fatigue and neurological issues. Upon ex
found that they have undergone a gastrectomy. What is the most likely cause
12
deficiency?

- ✓ **Decreased intrinsic factor production due to gastrectomy**
- Increased intake of vitamin B-12 supplements
- Increased absorption of vitamin B-12 from diet
- Autoimmune destruction of parietal cells unrelated to surgery

26. A patient presents with a total lung capacity (TLC) of 130%. What does this sug
function and potential diagnosis?

- The patient has normal lung function.
- ✓ **The patient likely has an obstructive lung disease.**
- The patient is experiencing acute respiratory distress.
- The patient may have restrictive lung disease.

27. If a patient presents with hemolytic anemia following a blood transfusion, what i
should be taken?

- Administer iron supplements to increase red blood cell production.
- ✓ **Investigate for a transfusion reaction and provide appropriate treatme**

- Monitor the patient for signs of dehydration.

- Schedule a follow-up appointment in one month.

28. If a patient has a reduced residual volume, what might this indicate about their

- It suggests the presence of obstructive lung disease.
- It indicates normal lung function and capacity.
- It shows an increase in lung compliance.
- ✓ **It may indicate restrictive lung disease or impaired lung expansion.**

29. What type of blood does the right ventricle pump?

- Waste-rich blood
- Nutrient-rich blood
- ✓ **Deoxygenated blood**
- Oxygenated blood

30. In patients diagnosed with obstructive lung disease, which of the following is the calculated FEV1 / FVC ratio?

- FEV1 / FVC ratio is elevated
- Both FEV1 and FVC are equally reduced; therefore, ratio is normal
- ✓ **FEV1 / FVC ratio is reduced**

- Both FEV1 and FVC are equally elevated; therefore, ratio is normal