

Final Exam Review pt. 1

Nervous System

1. What is the difference between the central and peripheral nervous systems? What do they consist of?

Central = , peripheral =

2. What is a myelin sheath?

3. Identify the parts of a neuron and their functions:

4. What are glial cells?

5. Impulse conduction is fastest in neurons that are what?

6. If enough sodium ions rush into and nerve then this can occur?

7. Organize these events in a neuron action potential:

a) the membrane becomes depolarized-

b) sodium channels open and sodium ions diffuse inward -

c) the membrane becomes repolarized-

d) potassium channels open & potassium ions diffuse outward while sodium is actively transported out of the cell-

8. What is the function of a neurotransmitter?

9. Describe the pathway of a reflex arc.

10. What is the difference between an effector and receptor in a reflex arc?

11. What are the parts of the brain stem?

12. What is the difference between gyri and sulci?

13. What is the function of Broca's area?

14. What major brain functions are located in the following lobes:

parietal lobe-

temporal lobe-

occipital lobe-

frontal lobe-

15. What are the functions of the hypothalamus?

16. Identify the function of the following brain areas?

Pons-

Medulla Oblongata-

Thalamus-

Midbrain-

Cerebrum-

Cerebellum-

17. Sensory nerves are (afferent or efferent) and motor nerves are (afferent or efferent)

18. Another name for the sense of smell is?

19. Identify the major nerve plexuses and where they go.

20. What is the autonomic nervous system?

21. What is the difference between sympathetic and parasympathetic?

22. Sympathetic nervous system stimulation causes: increased blood glucose, decreased GI peristalsis, and increased heart rate and blood pressure. So what does the parasympathetic nervous system do?

Cardiovascular System

23. The liquid portion of blood is called?

24. What is the function of hemoglobin? Describe hemoglobin.

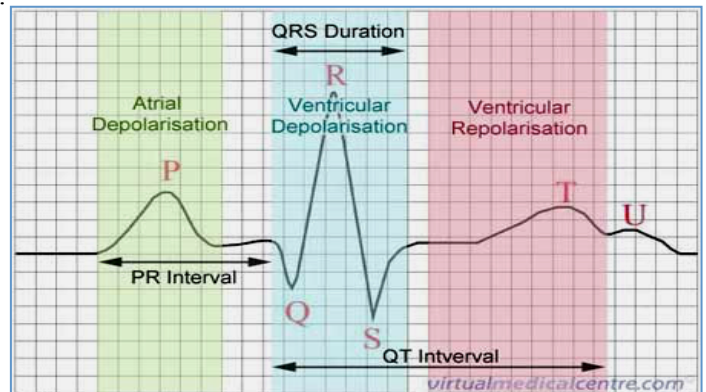
25. Platelets are fragments of cells involved in what?

26. What are the layers of the heart?

27. Identify the blood pathway.

28. What and where are the 4 valves in the heart?

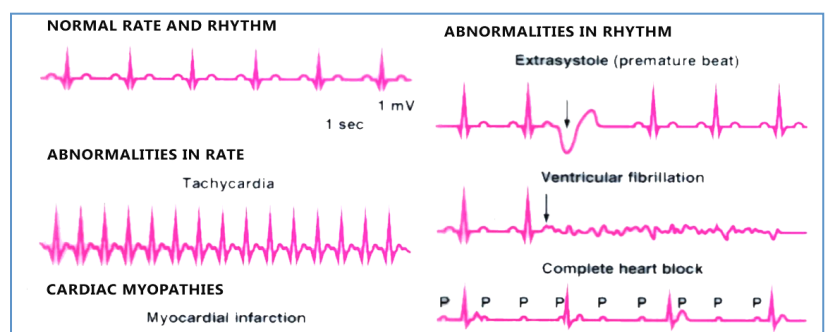
29. Identify the anatomy of the heart from a figure.



Identify what is occurring in each ECG phase

30. P-wave-

31. QRS- wave-

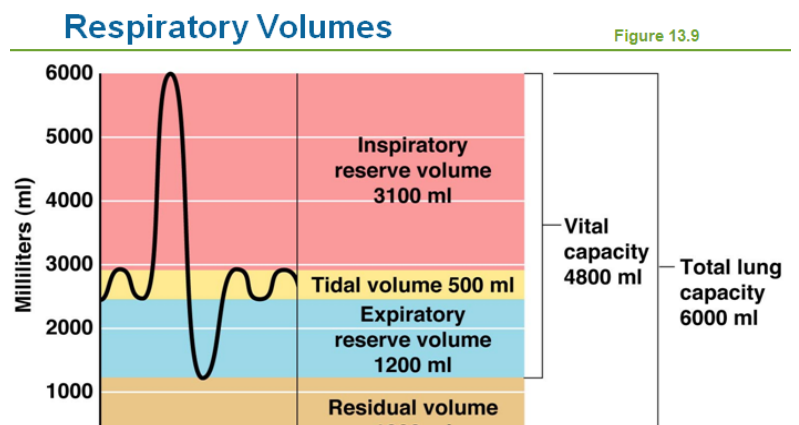


32. T wave
33. Define Atrial and Ventricular Depolarization
34. What is repolarization?
35. What is tachycardia? How is shown on an ECG?
36. What is a myocardial infarction?
37. Describe the ventricular fibrillation ECG.
38. Describe the heart block ECG? What is heart block?
39. What is the difference between Systole and Diastole?
40. $CO = HR \times SV$ Define this formula.
41. In a capillary which part is fluid leaving and which part is fluid returning?
42. What is pulse?
43. What are fenestrations in capillaries?
44. The veins that surround the intestine absorb dietary nutrients and then send this blood to what organ?
45. Identify the layers of a typical blood vessel from the inside-out.
46. Identify the arteries that branch off of the aortic arch.
47. Identify the major arteries in the body.

Respiratory System

48. Following the removal of the larynx, a person would be unable to do what?
49. What is the name given to the membrane that surrounds the lungs?
50. Trace the pathway of oxygen from the mouth to the alveoli.
51. Exchange of both oxygen and carbon dioxide through the respiratory membrane occurs by what force?

52. Identify the parts of a spirometer reading
53. What do the pons and medulla do for respiration?
54. What are chemoreceptors?
55. What is the difference between hyperventilation



& hypoventilation?

56. A high CO₂ level in the blood will do what to the blood pH?
57. What are the three ways CO₂ is transported in the blood?
58. Organize the passageway of air from the lungs to the alveoli with 5 as the largest and 1 as the smallest.
59. What is the function of the epiglottis?
60. How do vocal chords work?
61. What is the function of cilia in the trachea??
62. What is the difference between external and internal gas exchange?
63. What is function of surfactant?

Digestive

What is the alimentary canal?

What are the parts of the alimentary canal in order?

Protein digestion begins where?

Enzymes and bile are carried by the pancreatic duct and bile duct into where?

What are the divisions of the small and large intestines?

What is the function of the large intestine?

Bile is produced by the _____ but stored in the _____.

What is peristalsis

What are the building blocks (monomers) of: carbohydrates, proteins, fat.

Most digested food are absorbed into the blood but where are fats absorbed into?

Identify the parts of the stomach.

What cells in the stomach gastric pits make HCl, Pepsin, mucous and gastrin?

What is the function of rugae?

What are the layers of the intestine (from inside out)?