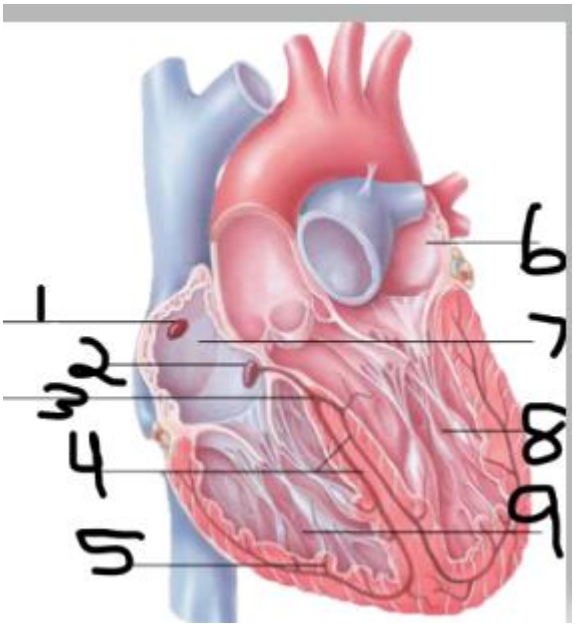
Name:_____Period:_____Date:_____
Ms. Randall Cardiac Conduction

Watch the following tutorial and answer the questions
https://www.johnwiley.net.au/highered/interactions/media/Distribution/content/Distribution/cardio1a/frameset.htm

1.1 Introduction

Label the cardiac conduction system.



1.

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2.1 Cardiac Conductile Cells

Areas of the cardiac conduction system that can spontaneously depolarize.

1. Match the area with the rate:

____ a. Sinoatrial (SA) node	1. 40-50 beats/minute
____ b. Atrioventricular (AV) node	2. 20-40 beats/minute
____ c. Ventricles	3. 100 beats/minute

2. Define the term Autorhythmic

2.2 Conductile Pathway

1. Describe the flow of action potentials through the heart's conductive system starting at the SA node.

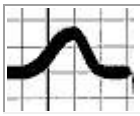
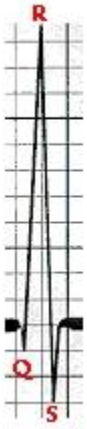
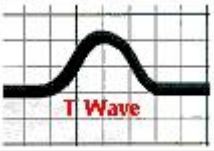
2. What are the primary functions of the AV node?

2.3 Timing of the contraction signal

1. Why is there a delay at the AV node in continuing the impulse?

2.4 Conduction system and ECG

1. Fill in the information in the chart

Waveform	Event	Illustration
P Wave	_____depolarization	
QRS Complex	_____ depolarization	
T Wave	_____ repolarization	

3.1 Depolarization of the SA node

1. What is the difference between a typical contractile myocardial cell and an SA node cell in terms of membrane potential?

3.2 Action Potentials of the Myocardium

1. List and describe the four stages of the action potential of a healthy ventricular cell.

2. Which part of the nervons system helps to determine the heart rate? Is this a voluntary or involuntary process?

4.1 Affects of the nervous system on the conduction system

1. What effects do Acetylcholine and norepinephrine have on the heart rate?