MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Management for a patient experiencing angina may include all of the following EXCEPT:  
A) nifedipine SL.  
B) 100% oxygen.  
C) nitroglycerin SL.  
D) epinephrine 1:1000 SQ.

2) A patient's ECG shows a rhythm at a rate of 64, regular RR intervals, a PR interval of 0.24 seconds, and a QRS of 0.12 seconds. This best fits the criteria for:  
A) second-degree type II AV block.  
B) second-degree type I AV block.  
C) first-degree AV block.  
D) third-degree AV block.

3) Which of the following is LEAST likely to be associated with the pain of acute myocardial infarction?  
A) Pain described as sharp  
B) A sensation described as a pressure  
C) Radiation to arms and neck  
D) Pain reproducible with palpation

4) There are three large boxes between R waves on an ECG tracing. What is the heart rate?  
A) 100  
B) 150  
C) 75  
D) 50

5) An accelerated junctional rhythm has a rate between _______ and _______.  
A) 20, 40  
B) 40, 60  
C) 60, 100  
D) 100, 150

6) The relative refractory period of the myocardium is represented by the:  
A) isoelectric line.  
B) beginning of the QRS complex to the apex of the T wave.  
C) down slope of the T wave.  
D) ST segment.

7) Which of the following is most likely to be associated with Torsades de Pointes?  
A) Concomitant use of an antidysrhythmic and antihistamine  
B) Block at the Bundle of Kent  
C) Idiopathic ventricular irritability  
D) Pre-excitation syndrome

8) Approximately _______ Americans die each year of coronary heart disease.  
A) 400,000  
B) 640,000  
C) 66,000  
D) 466,000
9) Your patient is a 66-year-old female who is complaining of shortness of breath and chest pain. She describes a 3-day history of worsening cough with "rust-colored" sputum. Today, she developed lower-left-side chest pain that seems to worsen with deep inspiration. She rates the pain a 3 on a scale of 1-10. Her skin is pale, warm, and damp. Auscultation of the lungs reveals rhonchi to the left lower lobe. HR = 100, BP = 144/82, RR = 24, SaO₂ = 92%. Which of the following is most appropriate?
   A) Oxygen by nasal cannula at 4 lpm, cardiac monitor, IV of normal saline at a keep open rate
   B) Oxygen by nasal cannula at 4 lpm, cardiac monitor, IV of normal saline at a keep open rate, nitroglycerin, morphine, furosemide
   C) Oxygen by nonrebreather at 15 lpm, cardiac monitor, IV of normal saline at a keep open rate, aspirin, nitroglycerin, morphine
   D) Oxygen by nonrebreather at 15 lpm, BLS transport

10) Myocardial ischemia results in:
   A) inverted T waves.
   B) ST segment elevation.
   C) ST segment depression with or without T wave inversion.
   D) appearance of Q waves.

11) The appearance of a pathological Q wave on an ECG indicates the presence of _______ tissue.
    A) ischemic
    B) injured
    C) infarcted
    D) reperfused

12) Which of the following describes the ability of a cardiac cell to propagate the electrical impulse to another cell?
    A) Automaticity
    B) Excitability
    C) Conductivity
    D) Contractility

13) Measures to treat cardiogenic shock include all of the following EXCEPT:
    A) improving preload.
    B) reducing peripheral resistance.
    C) increasing the contractile force.
    D) reducing stroke volume.

14) Which of the following best characterizes successful defibrillation?
    A) Stimulation of the SA node, impulse travels through cardiac conduction system, uniform contraction of the ventricles
    B) Retrograde depolarization of the myocardial conduction system from the Purkinje fibers to the SA node, repolarization of the pacemaker cells of the SA node
    C) Application of a stimulus strong enough to overcome the absolute refractory period, restoration of spontaneous electrical excitation
    D) Uniform mass depolarization of myocardial cells, repolarization, intrinsic pacemaker function resumes

15) Artifacts such as muscle tremors can make assessment of a paced rhythm difficult because:
    A) the QRS complexes may be obscured by the pacer spikes.
    B) artifact can cause the pacer to fire prematurely.
    C) the pacemaker may confuse the artifact for an electrical impulse and not fire.
    D) artifact can obscure the pacer spikes.

16) The intrinsic firing rate of the AV node is _______ to _______ times per minute.
    A) 40, 60
    B) 20, 40
    C) 80, 100
    D) 60, 80
17) The heart sound produced by the closing of the aortic and pulmonary valves is:

18) An early sign of hyperkalemia is:
   A) widening of the QT interval.  B) presence of an Osborn wave.
   C) flat T waves on an ECG.          D) tall, peaked T waves on an ECG.

19) An elevation of the ST segment is associated with:
   A) hyperkalemia.          B) myocardial injury.
   C) left ventricular hypertrophy.  D) slowed conduction through the AV node.

20) A 45-year-old male is alert and oriented, complaining of chest pain. He describes a 2-day history of worsening pain described as a burning sensation below his left breast that radiates across his chest. He states that the pain seems to get better right after eating, but then worsens again. Medical history includes myocardial infarction, hypertension, and type II diabetes. His medications include Inderal, Vasotech, Glucotrol, and Lopid. Physical examination reveals cool, dry skin; clear lungs; and no JVD or peripheral edema. HR = 102, BP = 132/86, RR = 12, SaO2 = 98%. The patient is on oxygen by nasal cannula at 4 liters per minute. Which of the following should be done next?
   A) 12-lead ECG
   B) 81 mg aspirin by mouth
   C) Precautionary IV of normal saline and transport
   D) 0.4 mg nitroglycerin sublingually

21) A 12-lead ECG that reveals slight ST segment elevation; Q waves in leads II, III, and aVF; and ST elevation in V1 and V2 most indicate which of the following?
   A) The patient is experiencing myocardial injury in her lateral wall.
   B) The patient is experiencing ischemia and injury in her left ventricle and septum.
   C) The patient has had a myocardial infarction in her inferior wall and is experiencing ischemia extending into the right ventricle.
   D) The patient is experiencing myocardial ischemia in her inferior wall that is extending into the septum.

22) ________ is a drop in systolic blood pressure of more than 10 mmHg with inspiration.
   A) Pulsus alternans          B) Pulse deficit
   C) Electrical alternans      D) Pulsus paradoxus

23) When the ECG paper is traveling at 25 mm/sec, a large box in the horizontal direction equals:
   A) 0.04 seconds.          B) 1 millivolt.
   C) 0.20 seconds.          D) 0.12 seconds.

24) Which of the following is most likely to be related to unequal blood pressures in the upper extremities?
   A) Abdominal aortic dissection
   B) Thoracic aortic aneurysm
   C) Transecting trauma of the thoracic aorta
   D) Abdominal aortic aneurysm

25) Signs and/or symptoms of a dissecting thoracic aneurysm include all of the following EXCEPT:
   A) chest pain.
   B) hypotension.
   C) difficulty breathing.
   D) palpable pulsating mass.
26) A decrease in preload results in a(n):
   A) decrease in cardiac output  
   B) decrease in peripheral vascular resistance
   C) decrease in afterload  
   D) increase in stroke volume

27) Your patient in atrial fibrillation has an apical pulse of 108, but her radial pulse is 88. The patient is experiencing:
   A) pulsus obliterans.  
   B) paradoxical pulse.
   C) pulsus alternans.  
   D) pulse deficit.

28) A 48-year-old male is complaining of chest pain that he describes as dull and located substernally, but radiating to his neck. He rates the pain a 6 on a scale of 1-10 and complains of nausea and lightheadedness. His skin is cool and diaphoretic. HR = 96, BP = 124/82, RR = 14, SaO₂ = 97%. The 12-lead ECG is nondiagnostic. In addition to oxygen, an IV of normal saline at a keep open rate, and transport to the emergency department, which of the following would be most appropriate?
   A) Nitroglycerin, morphine, and furosemide  
   B) Aspirin, nitroglycerin, and morphine
   C) Reassurance that his condition is not likely cardiac in nature  
   D) Nitroglycerin

29) Your patient is found sitting on the edge of the bathtub with cool, diaphoretic skin. She states she became lightheaded and nearly "passed out" while vomiting. Your cardiac monitor shows a sinus bradycardia at a rate of 48. Which of the following is most likely?
   A) Use of sympathomimetic medications  
   B) Increased parasympathetic tone
   C) disease of the cardiac conduction system  
   D) Sick sinus syndrome

30) Which of the following is NOT a likely immediate cause of acute myocardial infarction?
   A) Coronary artery occlusion by microemboli  
   B) Coronary artery spasm
   C) Atherosclerotic occlusion of a coronary artery  
   D) Hyperlipidemia
Answer Key
Testname: EPC, CH 28, QUIZ W-KEY

1) D
   Diff: 2  Page Ref: 1213
   Objective: 66

2) C
   Diff: 2  Page Ref: 1160
   Objective: 39

3) D
   Diff: 2  Page Ref: 1215
   Objective: 77

4) A
   Diff: 2  Page Ref: 1141
   Objective: 38

5) C
   Diff: 1  Page Ref: 1168
   Objective: 40

6) C
   Diff: 1  Page Ref: 1140
   Objective: 17

7) A
   Diff: 2  Page Ref: 1176
   Objective: 42

8) D
   Diff: 1  Page Ref: 1126
   Objective: 1

9) A
   Diff: 3  Page Ref: 1213
   Objective: 182

10) C
    Diff: 2  Page Ref: 1140
    Objective: 48

11) C
    Diff: 2  Page Ref: 1216
    Objective: 78

12) C
    Diff: 1  Page Ref: 1130
    Objective: 14

13) D
    Diff: 2  Page Ref: 1227
    Objective: 114

14) D
    Diff: 2  Page Ref: 1199
    Objective: 127

15) D
    Diff: 2  Page Ref: 1131
    Objective: 60

16) A
    Diff: 1  Page Ref: 1130
    Objective: 12

17) D
    Diff: 2  Page Ref: 1193
    Objective: 27

18) D
    Diff: 2  Page Ref: 1185
    Objective: 46

19) B
    Diff: 2  Page Ref: 1140
    Objective: 48

20) A
    Diff: 3  Page Ref: 1216
    Objective: 53

21) C
    Diff: 3  Page Ref: 1214
    Objective: 34

22) D
    Diff: 2  Page Ref: 1222
    Objective: 24

23) C
    Diff: 2  Page Ref: 1133
    Objective: 33

24) B
    Diff: 2  Page Ref: 1236
    Objective: 142

25) D
    Diff: 2  Page Ref: 1236
    Objective: 143

26) A
    Diff: 2  Page Ref: 1129
    Objective: 7

27) D
    Diff: 2  Page Ref: 1158
    Objective: 24

28) B
    Diff: 3  Page Ref: 1218
    Objective: 182

29) B
    Diff: 2  Page Ref: 1211
    Objective: 37

30) D
    Diff: 2  Page Ref: 1214
    Objective: 66
EPC, Ch 28, Quiz w-key

Name___________________________________

1) ______
2) ______
3) ______
4) ______
5) ______
6) ______
7) ______
8) ______
9) ______
10) _____
11) _____
12) _____
13) _____
14) _____
15) _____
16) _____
17) _____
18) _____
19) _____
20) _____
21) _____
22) _____
23) _____
24) _____
25) _____
26) _____
27) _____
28) _____
29) _____
30) _____