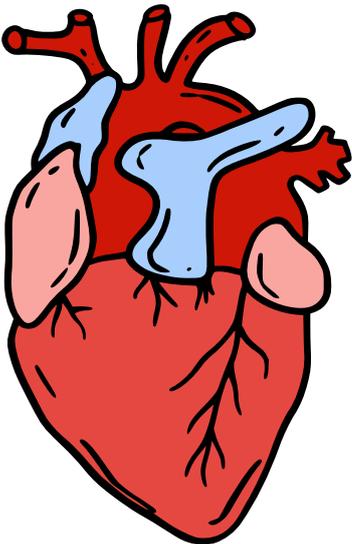
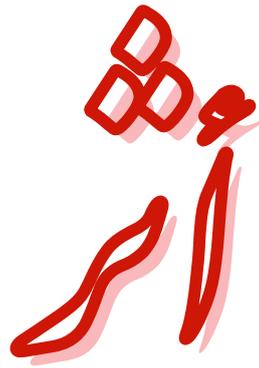


CVS

MED ARCHIVE



**DONE BY:-
BESAN KHALED**



1. An explanation for the no changes in mechanical capacity of heart even with increased oxygen consumption during utilization of fatty acids :

- A) Increased efficiency of ATP production from fatty acids .
- B) A shift towards anaerobic metabolism .
- C) Increased oxidative stress caused by fatty acid oxidation

Answer : C

2. Why can't the liver utilize the ketone bodies it produces?

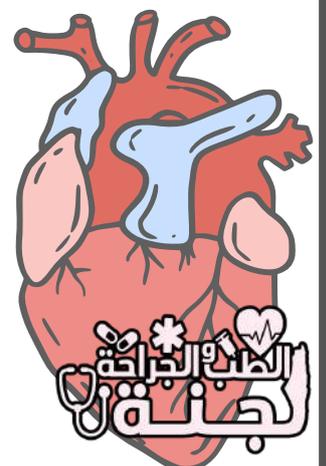
- A) Because it lacks the necessary transport proteins to import ketone bodies into hepatocytes .
- B) Because it lacks one of the enzymes of the ketolytic pathway .
- C) Because it lacks the mitochondria required for ketone body oxidation .
- D) Because it lacks the cofactors necessary for the conversion of ketone bodies to acetyl-CoA .

Answer : B

3. An important factor for regulating cholesterol synthesis is the sterol regulatory element, which pair contains this factor?

- A) SREBP and SCAP
- B) SCAP and Insig-1
- C) HMG-CoA reductase and SREBP
- D) Insig-1 and SRE
- E) SREBP and HMG-CoA reductase

Answer : A



4. A patient presents to the emergency department with chest pain. Which of the following biomarkers would be MOST helpful in determining if the patient has experienced myocardial damage?

- A) LDH
- B) CK-MB
- C) Myoglobin
- D) ALT

Answer : B

5. Which cardiac biomarker typically remains elevated for the longest duration, often detectable even after one week following myocardial infarction (heart attack)?

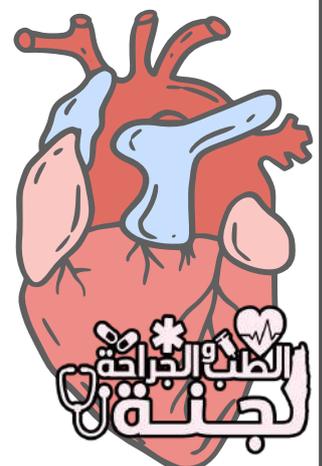
- A) Myoglobin
- B) CK-MB (Creatine Kinase-MB)
- C) Cardiac Troponin I or T
- D) Creatine Kinase (CK)
- E) Lactate Dehydrogenase (LDH)

Answer : C

6. Which of the following cardiac biomarkers is now considered relatively obsolete due to the availability of more sensitive and specific alternatives?

- A) LDH (Lactate Dehydrogenase)
- B) Myoglobin
- C) CK-MB (Creatine Kinase-MB)
- D) Troponin
- E) BNP (B-type Natriuretic Peptide)

Answer : A



1. Which of the following is not correct?

- A) increased CVD deaths in African–American and South–Asian populations in comparison with Whites
- B) Cardiovascular mortality (fatal cases) are more common among women .
- C) Developed countries : decreasing tendencies
- D) Developing countries : increasing tendencies

Answer : B

2. What happens one year after smoking cessation?

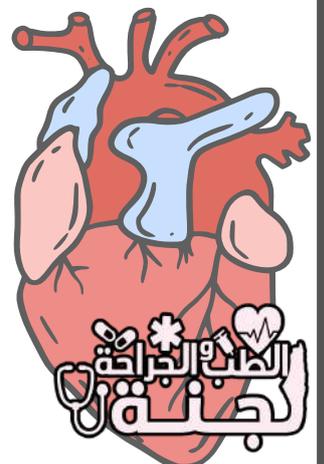
- A) Risk of myocardial infarction decreases
- B) Stroke risk is reduced to that of someone who has never smoked
- C) Coronary heart disease risk is the same as a person who never smoked
- D) Coronary heart disease risk is half that of a person who smokes
- E) Carbon monoxide level in blood drops to normal

Answer : D

3. When most withdrawal symptoms peak after quitting smoking ?

- A) 12–24 hours
- B) 24–48 hours
- C) 48–72 hours
- D) 72–96 hours
- E) 1–2 days

Answer : B



4. A public health initiative is introduced in a community to reduce the risk factors for cardiovascular diseases before they even begin to develop. This program targets lifestyle changes and environmental modifications in order to prevent the emergence of these risk factors in the first place.

Which of the following approaches best describes this type of prevention?

- A) Primary prevention
- B) Secondary prevention
- C) Tertiary prevention
- D) Primordial prevention
- E) Quaternary prevention

Answer : D

5. Which of the following describes risk factors that are commonly found in many populations?

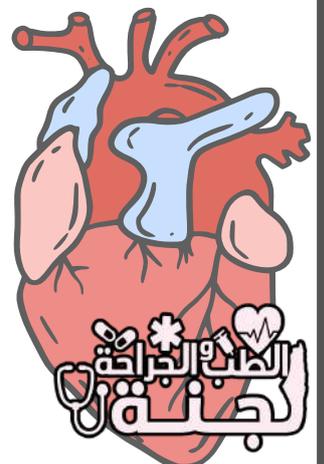
- A) Novel risk factors
- B) Conventional risk factors

Answer : B

6. All of the following are withdrawal symptoms of nicotine cessation EXCEPT :

- A) Increased appetite
- B) Insomnia
- C) Restlessness
- D) Decreased heart rate
- E) Hypertension

Answer : E



1. Which of the following is wrong about the transverse sinus?

- A) It is formed by the reflection of the visceral pericardium from the front of the two atria to the back of the ascending aorta and pulmonary trunk.
- B) It is bordered anteriorly by the ascending aorta and pulmonary trunk.
- C) It is bordered posteriorly by the superior vena cava and the right atrium.
- D) Superiorly, it is bordered by the right pulmonary artery.
- E) It allows the passage of temporary ligatures to occlude the pulmonary trunk and aorta during cardiac surgery.

Answer : C

2. Which of the following is correct about the fibrous pericardium?

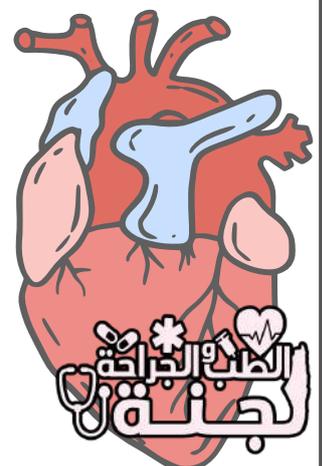
- A) It is connected to the diaphragm by the central tendon.
- B) It is attached to the vertebral column by the posterior pericardial ligament.
- C) It is not attached to the great blood vessels passing through it.
- D) It is attached to the diaphragm by the fibrous ligament of the heart.
- E) It is firmly attached to the sternum only via the superior sternopericardial ligament.

Answer : A

3. Which of the following refers to the transverse muscular ridges in the right atrium?

- A) Trabeculae carneae
- B) Papillary muscles
- C) Muscular pectinate
- D) Chordae tendineae
- E) Crista terminalis

Answer : C



4. Which of the following is not correct about the boundaries of the superior mediastinum?

- A) Anteriorly : Manubrium sterni
- B) Superiorly : Thoracic inlet
- C) Inferiorly : The horizontal transverse thoracic plane
- D) Posteriorly : Upper 5 thoracic vertebrae
- E) Laterally : Pleurae of the lungs

Answer : D

5. which of the following is wrong :

Answer : sinuatrial nodal artery in 40% of people arise from right coronary artery

6. Where does the right common carotid artery originate?

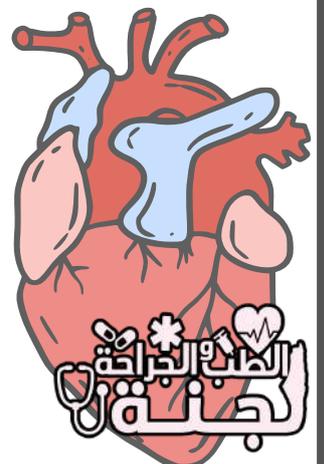
- A) Aortic arch
- B) Left subclavian artery
- C) Brachiocephalic artery
- D) Right subclavian artery
- E) Internal carotid artery

Answer : C

7. Where does the external carotid artery typically terminate?

- A) At the base of the skull
- B) Behind the neck of the mandible
- C) At the carotid bifurcation
- D) At the jugular foramen
- E) Behind the angle of mandible

Answer : B



8. Which of the following is true about the femoral artery?

- A) It gives off the superficial epigastric and deep external pudendal branches .
- B) It arises from the common iliac artery .
- C) It supplies the kidneys through its branches .
- D) It travels posterior to the knee joint before branching into the popliteal artery .
- E) passes lateral to the femoral nerve

Answer : A

9. Sectioning the heart from apex upwards , which order of structures is correct?

- A) Atrium , valve , chordae tendineae , papillary muscle
- B) Ventricle , papillary muscle , chordae tendineae , valve
- C) Valve , chordae tendineae , papillary muscle , ventricle
- D) Papillary muscle , chordae tendineae , valve , atrium
- E) Interventricular septum , papillary muscle , valve , atrium

Answer : B

10. Which artery gives rise to the diagonal artery?

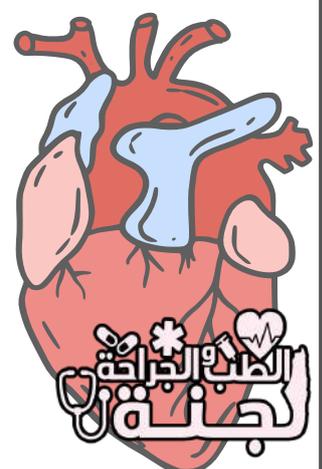
- A) Right coronary artery
- B) Circumflex artery
- C) Anterior descending branch of the left coronary artery
- D) Posterior descending artery

Answer : C

11. Which of the following is NOT a tributary of the internal jugular vein?

- A) Inferior petrosal sinus
- B) Pharyngeal vein
- C) Common facial vein
- D) Lingual vein
- E) Inferior thyroid veins

Answer : E



1. Which of the following ECG findings indicates a myocardial infarction (MI) and typically does not disappear over time?

- A) ST-segment elevation
- B) T-wave inversion
- C) Deep Q wave
- D) Prolonged PR interval
- E) Tachycardia

Answer : C

2. Which of the following describes the state of the heart valves during the protodiastolic phase ?

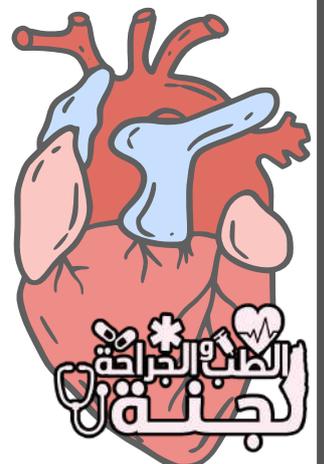
- A) AV valves open, semilunar valves open
- B) AV valves closed, semilunar valves open
- C) AV valves open, semilunar valves closed
- D) AV valves closed, semilunar valves closed
- E) AV valves closing, semilunar valves opening

Answer : B

3. Which of the following statements is correct regarding forces causing filtration at the arterial end of the capillary?

- A) total outward is 21 mmHg .
- B) total inward is 41 mmHg .
- C) capillary
- D) Negative interstitial fluid pressure is 6 mmHg .
- E) Interstitial colloid osmotic pressure equals 8 mmHg .

Answer : E



4. Which of the following statements is **INCORRECT** regarding the automaticity and rhythmicity of the heart?

- A) Autorhythmicity is myogenic in origin .
- B) The sinoatrial (SA) node is the dominant pacemaker of the heart .
- C) The atrioventricular (AV) node can generate a nodal rhythm if the SA node fails .
- D) The ability to respond to a stimulation is the defining characteristic of automaticity .
- E) These properties are intrinsic to cardiac muscle cells .

Answer : D

5. Which of the following statements is **INCORRECT** regarding pacemaker action potentials?

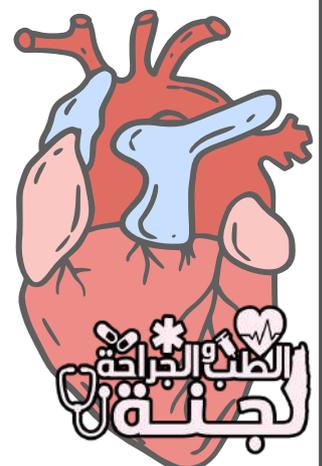
- A) They exhibit a slow diastolic depolarization (pacemaker potential) .
- B) They have an unstable resting membrane potential .
- C) They rely primarily on calcium influx for the upstroke of the action potential .
- D) The "funny current" (I_f) contributes to the pacemaker potential .
- E) They have a stable resting membrane potential .

Answer : E

6. Hyperkalemia Effect :

- A) +ve chronotropic
- B) -ve inotropic
- C) +ve inotropic , -ve chronotropic
- D) -ve chronotropic , +ve inotropic
- E) -ve inotropic , -ve chronotropic

Answer : E



7. Which of the following statements about the plateau phase of the cardiac action potential is TRUE?

- A) The plateau phase is caused by the Na^+ influx .
- B) K^+ channels remain completely closed during the plateau phase .
- C) The plateau phase is absent in ventricular myocytes .
- D) Ca^{2+} inflow equals K^+ outflow .
- E) The plateau phase causes immediate repolarization .

Answer : D

8. Which of the following statements about fast action potential in cardiac muscle is WRONG?

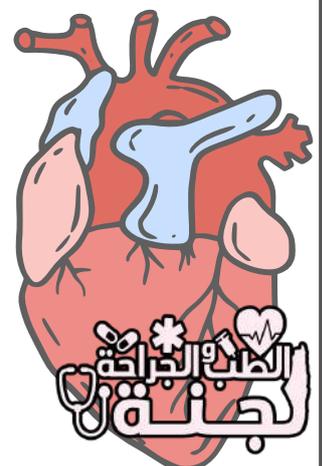
- A) The resting membrane potential is around -90 mV .
- B) Depolarization is due to the opening of voltage-gated Na^+ channels .
- C) The plateau phase is maintained by the influx of Ca^{++} through L-type channels .
- D) Repolarization occurs due to the opening of K^+ channels .
- E) Depolarization is due to the opening of T-type Ca^{++} channels .

Answer : E

9. What is the part of an ECG between the end of the P wave and the start of the R wave called?

- A) PR Interval
- B) ST Segment
- C) PR Segment
- D) QT Interval

Answer : C



1. Which of the following statements about blood vessels is **WRONG**?

- A) The tunica media is the thickest layer in muscular arteries .
- B) Capillaries consist of a single layer of endothelial cells to facilitate exchange .
- C) The tunica intima is the innermost layer of all blood vessels .
- D) The tunica adventitia is the thickest layer in the vena cava relative to other blood vessels .
- E) Veins have valves to prevent the backflow of blood .

Answer : D

2. Which of the following statements about heart muscle is **WRONG**?

- A) Cardiac muscle cells are connected by intercalated discs .
- B) The heart muscle has a rich supply of mitochondria for energy production .
- C) The sarcoplasmic reticulum plays a key role in calcium storage for contraction .
- D) Cardiac muscle exhibits striations similar to skeletal muscle .
- E) Intercalated discs are responsible for Ca^{++} storing for heart muscle contraction .

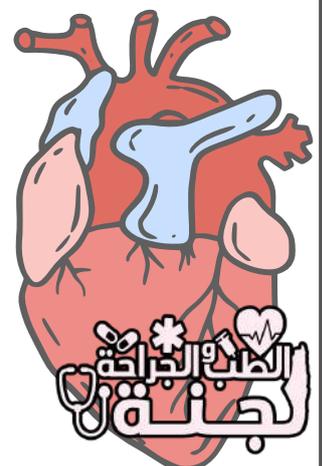
Answer : E

3. The central structure of a heart valve leaflet is primarily composed of : **Answer : Dense irregular connective tissue**

4. which of the following statements about capillary types and locations is **INCORRECT**?

- A) Continuous capillaries : Muscle
- B) Fenestrated capillaries : Intestine
- C) Sinusoidal capillaries : endocrine glands
- D) Visceral capillaries : Renal glomeruli
- E) Somatic capillaries : Spleen

Answer : E

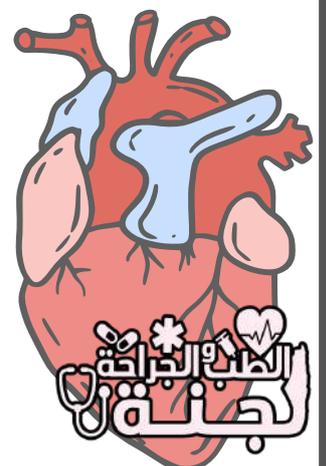


PHARMACOLOGY **CVS**

1 . A 55–year–old patient with hypertension and a history of asthma is being considered for beta–blocker therapy . Due to her asthma , the physician is seeking an alternative medication with comparable antihypertensive effects . Which of the following would be the MOST appropriate substitute for a beta–blocker in this patient?

- A) Furosemide
- B) Sacubitril/Valsartan
- C) Digoxin
- D) Telmisartan
- E) Canagliflozin

Answer : D



1. Which developmental anomaly is the primary cause of transposition of the great vessels (TGV)?

- A) Anticlockwise rotation of the bulbar septum
- B) Persistent truncus arteriosus

Answer : A

2. All of the following are true about the development of the interatrial septum EXCEPT :

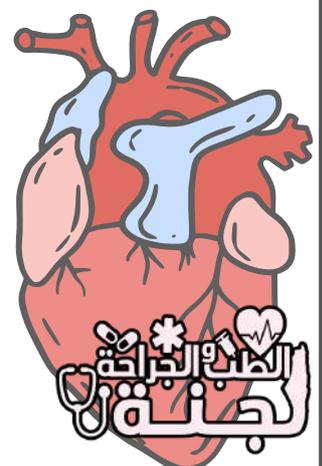
- A) The septum primum is a sickle-shaped structure that descends from the roof of the common atrium .
- B) The ostium primum is a temporary opening that exists before the ostium secundum forms .
- C) The foramen ovale is a gap between the lower edge of the septum secundum and the upper edge of the septum primum .
- D) The foramen ovale closes due to increased pressure in the right atrium after birth .
- E) The septum secundum grows to cover the ostium secundum .

Answer : D

3. Which artery is mainly derived from the first aortic arch?

- A) Maxillary
- B) Brachiocephalic
- C) Stapedial
- D) Common Carotid
- E) Pulmonary

Answer : A



1. All of the following are commonly related to complications of liver cirrhosis EXCEPT :

- A) rectal hemorrhoids
- B) caput medusa
- C) testicular hemorrhoids
- D) esophageal varices
- E) portal hypertension

Answer : C

2. All of the following contribute to the development of an aneurysm except :

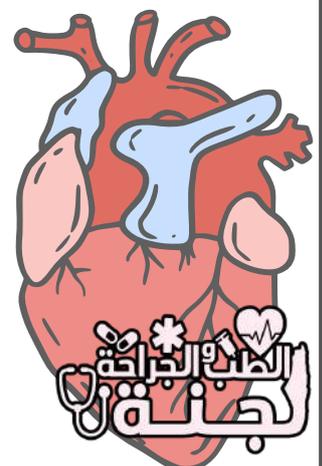
- A) Loss of smooth muscle cells (SMCs) within the aortic wall .
- B) Increased synthesis of matrix metalloproteinases (MMPs) by macrophages in atherosclerotic plaques .
- C) Increased TGF- α expression leading to excessive connective tissue formation .
- D) Ischemia-induced aortic degenerative changes .

Answer : C

3. A 3-year-old child presents with a persistent fever, pharyngitis, conjunctival involvement, and cervical lymphadenopathy . If left untreated, which of the following is the most life-threatening potential complication?

- A) Persistent fever and rash
- B) Joint pain and swelling (arthritis)
- C) Coronary artery involvement
- D) Oral mucosal changes (e.g., strawberry tongue)
- E) Desquamation of the skin (peeling of hands and feet)

Answer : C



1. All of the following are true about signs and symptoms of endocarditis except :

- A) Vegetations on heart valves are a diagnostic hallmark of IE.
- B) Heart murmurs and tachycardia are frequently observed signs.
- C) Patients may experience increasing fatigue and shortness of breath.
- D) Joint and muscle pain (arthralgias and myalgias) can be present.
- E) Fever occurs in 20% of people with IE.

Answer : E

تم بحمد الله

