**CVS Mid exam archive (divided by subject)**

**Histology (5 questions):**

1. **Which of the following is a wide and leaky capillary?**
	1. Continuous
	2. Fenestrated
	3. Sinusoids ✓
2. **Which of the following is true about the cardiac cell?**
	1. Has multiple large mitochondria ✓
	2. Peripheral nuclei
	3. High lipid content
	4. Triad at A-I line
	5. Diad at A line
3. **Which of the following does not have portal circulation?**
	1. Muscle ✓
	2. Kidney
	3. Liver
	4. Brain
	5. All organs have portal circulation
4. **What is an artery with prominent internal and external elastic lamina called?**
	1. Muscular ✓
	2. Elastic
5. **Which of the following is not a component of intercalated disk?**
	1. Terminal cisternae ✓
	2. Desmosomes
	3. Macula adherins

**Embryology (3 questions):**

1. **Which of the following does not form part of the aorta?**
	1. Right dorsal aorta ✓
	2. Left dorsal aorta
	3. Left 4th pharyngeal arch
	4. Aortic sac
	5. Left horn of aortic sac
2. **What are the borders of foramen ovale?**
	1. Septum primum and septum secondum
3. **Order of sacs in heart tube from cranial to caudal?**
	1. Bulbus cordis – primitive ventricle – primitive atrium – sinus venosus

**Biochemistry (8 questions):**

1. **What is the cardiac biomarker that remains elevated for the longest time?**
	1. LDH
2. **A patient came to ER 12 hours after experiencing chest pain, what 2 cardiac biomarkers would be at their peak during this time?**
	1. Troponin and LDH ??
	2. Myoglobin and CK-MB
	3. AST and LDH
3. **Lipoprotein lipase breaks down TG in VLDL, what apoprotein acts as a catalyst for this enzyme?**
	1. Apoprotein CII
4. **What is the HDL receptor in the liver?**
	1. Scavenger receptor class B
5. **Why can’t the liver utilize the ketone bodies it produces?**
	1. Because it lacks one of the enzymes of ketolytic pathway
6. **An important factor for regulating cholesterol synthesis is sterol regulatory element, which pair contains this factor?**
	1. SREBP and SCAP ✓
	2. SCAP and Insig-1
7. **Which of the following correctly describes phosphorylation-dephosphorylation of PDH?** (مش هيك الصياغة)
	1. Low ATP/ADP and Low acetyl CoA/CoA inhibits the inhibiting enzyme
8. **An explanation for the no changes in mechanical capacity of heart even with increased oxygen consumption during utilization of fatty acids**
	1. Increased oxidative stress caused by oxidation of fatty acids

**Medicine and Microbiology** (2 questions, same topic so I don’t know which is which)

1. **A patient presents with fever, chills, arthralgia, and he has a history of rheumatic disease, he had a dental procedure a while ago, no proof of endocarditis yet, but endocarditis is suspected, what is a possible pathogen causing it?**
	1. Viridans strept
2. **Infective endocarditis associated with intravenous drugs users is caused by which organism?**
	1. Staph aureus

**Surgery (1 question)**

1. **Which of the following is not a risk factor for CAD (coronary artery disease)?**
	1. Female gender ✓
	2. Rheumatoid arthritis
	3. Family history of CAD
	4. Oral contraceptive

**Pharmacology (11 questions)**

1. **Which of the following is not a class of anti-arrhythmic drugs?**
	1. Chlorine channel blockers
2. **Which of the following is an HMG-CoA reductase inhibitor?**
	1. Fluvastatin (other options didn’t end with -statin)
3. **What is a derivative of Nicotinic acid?**
	1. Niacin
4. **Which of the following is incorrect about treatment of heart failure?**
	1. CCB (Ca channel blockers) are used for chronic heart failure
5. **Which of the following is incorrect about treatment of heart failure?**
	1. Digoxin has long onset of action
6. **Which of the following is incorrect about heart failure treatment?**
	1. ARBS increase bradykinin level
7. **Heparin is used for?**
	1. Initial management of myocardial infarction
8. **Which of the following is not an anti-hypertensive drug?**
	1. Amphetamine ✓
	2. ACE inhibitors
	3. ARBS
9. **Route of administration for isosorbide mononitrate?**
	1. Orally ✓
	2. Sublingually
	3. IV
10. **Which of the calcium channel blockers used for hypertension causes gingival hyperplasia?**
	1. Verapamil
11. **Alpha 1 adrenergic receptor blockers cause vasodilation by decreasing what action of norepinephrine?**
	1. Vasoconstriction

**Community (6 questions)**

1. **Primary prevention of early stage of disease is called**
	1. Secondary prevention
2. **Novel risk factor for CVD**
	1. Excess homocysteine levels
3. **What is incorrect about epidemiology of CVD?**
	1. Japanese people living in Japan have higher risk of CHD than Japanese people living in San Francisco
4. **Which of the following is incorrect about Smoking and CVD risk?**
	1. Nicotine replaces oxygen
5. **When do carbon monoxide levels return to normal after smoking cessation?**
	1. After half a day of smoking cessation
6. **All of the following are unhealthy eating habits for CVD, except**
	1. Diet low in refined carbohydrates

**Pathology (9 questions)**

1. **When is the risk of serious arrhythmias after AMI the highest?**
	1. 1 hour after
2. **Wave of macrophages that remove necrotic myocytes and neutrophil fragments after myocardial infarction?**
	1. 1 to 3 days
	2. 5 to 10 days ✓
3. **All of the following factors increase risk of rupture of plaque except**
	1. Thick fibrous cap
4. **Which of the following is not true about temporal arteritis?**
	1. Occurs before 50 years of age ✓
	2. Granuloma
	3. Involve temporal and ophthalmic
	4. T cell mediated
5. **Patient with bilateral pneumonitis, with radiographically visible nodules with central cavitation, chronic sinusitis, mucosal ulceration of nasopharynx and renal involvement**
	1. Granulomatosis with polyangiitis
6. **Most common cause of mitral stenosis?**
	1. Chronic rheumatic valve disease ✓
	2. Acute rheumatic fever
7. **Which of the following is wrong about myxomatous mitral valve?**
	1. Secondary mitral prolapse happens more in men
8. **What is the cardiomyopathy where ventricular wall is severely thinned owing to myocyte replacement by fatty infiltration and lesser amounts of fibrosis?**
	1. Arrhythmogenic right ventricular cardiomyopathy
9. **What defect causes aneurysms in Marfan syndrome?**
	1. Defective synthesis of fibrillin ✓
	2. Other options were Collagen types
10. **What is the normal thickness of left ventricular wall? (not sure it’s patho)**
	1. 1.3 cm

**Physiology (19 questions)**

1. **Precapillary sphincter would open and shut based on?**
	1. O2 availability
2. **What is not true about mean arterial blood pressure?**
	1. Equals systolic pressure minus diastolic pressure
3. **Which of the following is not matched regarding autoregulation mechanisms?**
	1. Increased metabolic demand -> increase resistance
4. **Which of the following is not true about plateau?**
	1. L type Ca channels are inactive and K are active
5. **Which of the following is not important for cardiac contraction?**
	1. Ca++ and calmodulin
	2. Troponin c
	3. Rynadine receptor 2
	4. Funny Na channels ✓
6. **Which of the following is not consistent with intrinsic cardiac conduction system?**
	1. Autonomic nervous system
7. **What is primary regulator of blood flow to muscles during rest?**
	1. Sympathetic vasoconstriction tone ✓
	2. Metabolic demand
8. **Main factor affecting coronary circulation?**
	1. Adenosine
9. **Diastolic filling of ventricles produces what sound?**
	1. Third heart sound
10. **Rushing of blood into aorta and pulmonary trunk produces what sound?**
	1. Second component of 1st sound
11. **Sounds of the heart are \_\_\_\_?**
	1. Mainly due to closure of valves
12. **Arterioles are?**
	1. Resistance vessels
13. **Regarding cardiac cycle**
	1. Has 8 phases
14. **Filling of ventricles occurs in**
	1. Atrial systole, maximum and minimum filling phases
15. **Which of the following is true about diastole?**
	1. Ventricles rest
	2. Complete coronary filling
	3. Ventricles filling
	4. Ventricle rest and filling
	5. All of the above are true ✓
16. **If blood pressure in the carotid artery falls, what changes will occur?**
	1. Carotid baroreceptors will decrease their inhibitory impulses
17. **Which of the following is not an effect of renin-angiotensin system?**
	1. Excess Sodium excretion
18. **Which of the following is true about cardiac cycle?**
	1. Increasing heart rate decreases duration
19. **Cardiac output in L/min divided by heart rate is?**
	1. Stroke volume
20. **Valves of heart are closed during?**
	1. Isometric relaxation and isometric contraction

**Anatomy (14 questions)**

1. **What can be seen in right atrium**
	1. Opening of coronary sinus
2. **All are true about maxillary artery except?**
	1. Gives a branch to the upper eyelid
3. **Vein found in anatomical snuff box**
	1. Cephalic vein
4. **All have posterior relation to base of heart except?**
	1. T3-T6 vertebrae ✓
	2. Pericardium
	3. Esophagus
	4. Aorta
	5. Oblique sinus
5. **Artery that supplies the infundibulum of right ventricle?**
	1. Right conus artery
6. **Artery that supplies the largest area of interventricular septum?**
	1. Anterior interventricular artery
7. **Which of the following does not participate in trochanteric anastomosis?**
	1. Obturator artery ✓
	2. Lateral circumflex
	3. Medial circumflex
	4. Superior gluteal
	5. Inferior gluteal
8. **Dorsalis pedis is a continuation of?**
	1. Anterior tibial artery
9. **Which of the transverse foramen of cervical vertebra does not have vertebral artery?**
	1. 7th
10. **Given that there is an artery starting at the 2nd costal cartilage and ending at T4 vertebrae, what would be the names of branches coming out of it?**
	1. Brachiocephalic, left common carotid, left subclavian
11. **Which of the following is not found in the superior mediastinum?**
	1. Right laryngeal recurrent nerve
12. **Which of the following is not true about arch of the aorta?**
	1. It is the first part of aorta
13. ))axillary artery question is wrong so I won’t write it))

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1. **All the following changes can happen in severe hypertension except?**
	1. Increased ECG (or QRS I forgot) magnitude
	2. Increase myocardial cells/size (I also forgot)
	3. Blurry vision