Asstte Professor Comp. Exam 2024. Med Edu Deptt.

794669

प्रश्न-पुस्तिका संख्या व बारकोड / Question Booklet No. & Barcode

MPA-25

इस प्रश्न-पुस्तिका को तब तक न खोलें जब तक कहा न जाए। Do not open this Question Booklet until you are asked to do so.

पुस्तिका में पृष्टों की संख्या Number of Pages in Booklet: 24 पुस्तिका में प्रश्नों की संख्या No. of Questions in Booklet: 150

Paper Code: 80

Sub : Cardiology

समय: 02:30 घण्टे + 10 मिनट अतिरिक्त* Exam Date 04/07/2095

Maximum Marks: 150

Time: 02:30 Hours + 10 Minutes Extra*

प्रशन-पुस्तिका के पेपर की सील/पॉलिथीन बैग को खोलने पर प्रश्न-पत्र हल करने से पूर्व परीक्षार्थी यह सुनिश्चित कर लें कि :

- प्रश्न-पुस्तिका संख्या तथा ओ.एम.आर. उत्तर-पत्रक पर अंकित बारकोड संख्या समान हैं।
- प्रश्न-पुस्तिका एवं ओ.एम.आर. उत्तर-पत्रक के सभी पृष्ठ व सभी पृष्ठ सही मुद्रित हैं । समस्त प्रश्न, जैसा कि ऊपर वर्णित है, उपलब्ध हैं तथा कोई भी पृष्ठ कम नहीं है / मुद्राण त्रृटि नहीं है । किसी भी प्रकार की विसंगति या दोषपूर्ण होने पर परीक्षार्थी वीक्षक से दूसरा प्रथन–पत्र प्राप्त कर लें । यह सुनिश्चित करने की जिम्मेदारी अभ्यर्थी की होगी । परीक्षा प्रारम्भ होने के 5 मिनट पश्चात् ऐसे किसी दावे/आपत्ति षर कोई विचार नहीं किया जायेगा ।

On opening the paper seal/polythene bag of the Question Booklet before attempting the question paper, the candidate should ensure that: Question Booklet Number and Barcode Number of OMR Answer Sheet are same.

All pages & Questions of Question Booklet and OMR Answer Sheet are properly printed. All questions as mentioned above are available and no page is missing/misprinted.

If there is any discrepancy/defect, candidate must obtain another Question Booklet from Invigilator. Candidate himself shall be responsible for ensuring this. No claim/objection in this regard will be entertained after five minutes of start of examination.

परीक्षाथियों के लिए निर्देश

- 1. प्रत्येक प्रश्न के लिये एक विकल्प भरना अनिवार्य है ।
- सभी प्रश्नों के अंक समान हैं ।
- 3. प्रत्येक प्रश्न का मात्र एक ही उत्तर दीजिए । एक से अधिक उत्तर देने की दशा में प्रश्न के उत्तर को गलत माना जाएगा ।
- OMR उत्तर-पत्रक इस प्रश्न-पृस्तिका के अन्दर रखा है । जब आपको प्रश्न-पुस्तिका खोलने को कहा जाए, तो उत्तर-पत्रक निकाल कर ध्यान से केवल नीले बॉल पॉइंट पेन से विवरण भरें ।
- 5. कपया अपना रोल नम्बर ओ.एम.आर. उत्तर-पत्रक पर सावधानीपूर्वक सही भरें । गलत रोल नम्बर भरने पर परीक्षार्थी स्वयं उत्तरदायी होगा ।
- ओ.एम.आर. उत्तर-पत्रक में करेक्शन पेन/व्हाईटनर/सफेदा का उपयोग निषिद्ध है।
- 7. प्रत्येक गलत उत्तर के लिए प्रश्न अंक का 1/3 भाग काटा जायेगा । गलत उत्तर से तात्पर्य अशुद्ध उत्तर अथवा किसी भी प्रश्न के एक से अधिक उत्तर से है।
- 8. प्रत्येक प्रश्न के पाँच विकल्प दिये गये हैं, जिन्हें क्रमश: 1, 2, 3, 4, 5 अंकित किया गया है । अभ्यर्थी को सही उत्तर निर्दिष्ट करते हुए उनमें से केवल एक गोले (बबल) को उत्तर-पत्रक पर नीले बॉल पॉइंट पेन से गहरा करना है ।
- 9. यदि आप प्रश्न का उत्तर नहीं देना चाहते हैं तो उत्तर-पत्रक में पाँचवें (5) विकल्प को गहरा करें । यदि पाँच में से कोई भी गोला गहरा नहीं किया जाता है, तो ऐसे प्रश्न के लिये प्रश्न अंक का 1/3 भाग काटा जायेगा।
- 10.* प्रश्न-पत्र हल करने के उपरांत अभ्यर्थी अनिवार्य रूप से ओ.एम.आर. उत्तर-पत्रक जाँच लें कि समस्त प्रश्नों के लिये एक विकल्प (गोला) भर दिया गया है । इसके लिये ही निर्धारित समय से 10 मिनट का अतिरिक्त समय दिया गया है।
- 11. यदि अभ्यर्थी 10% से अधिक प्रश्नों में पाँच विकल्पों में से कोई भी विकल्प अंकित नहीं करता है तो उसको अयोग्य माना जायेगा ।
- 12. मोबाइल फोन अथवा अन्य किसी इलेक्ट्रोनिक यंत्र का परीक्षा हॉल में प्रयोग पूर्णतया वर्जित है । यदि किसी अभ्यर्थी के पास ऐसी कोई वर्जित सामग्री मिलती है तो उसके विरुद्ध आयोग द्वारा नियमानुसार कार्यवाही की जायेगी ।

चेतावनी : अगर कोई अभ्यर्थी नकल करते पकड़ा जाता है या उसके पास से कोई अनिधकृत सामग्री पाई जाती है, तो उस अभ्यर्थी के विरुद्ध पुलिस में प्राथमिकी दर्ज कराते हुए राजस्थान सार्वजनिक परीक्षा (भर्ती में अनुचित साधनों की रोकथाम अध्युपाय) अधिनियम, 2022 तथा अन्य प्रभावी कानून एवं आयोग के नियमों-प्रावधानों के तहत कार्यवाही की जाएगी। साथ ही आयोग ऐसे अभ्यर्थी को भविष्य में होने वाली आयोग की समस्त परीक्षाओं से विवर्जित कर सकता है ।

INSTRUCTIONS FOR CANDIDATES

- It is mandatory to fill one option for each question.
- 2. All questions carry equal marks.
- Only one answer is to be given for each question. If more than 3. one answers are marked, it would be treated as wrong answer.
- The OMR Answer Sheet is inside this Question Booklet. When you are directed to open the Question Booklet, take out the Answer Sheet and fill in the particulars carefully with Blue Ball Point Pen only.
- Please correctly fill your Roll Number in OMR Answer Sheet. Candidates will themselves be responsible for filling wrong
- Use of Correction Pen/Whitener in the OMR Answer Sheet is strictly forbidden.
- 1/3 part of the mark(s) of each question will be deducted for each wrong answer. A wrong answer means an incorrect answer or more than one answers for any question.
- Each question has five options marked as 1, 2, 3, 4, 5. You have to darken only one circle (bubble) indicating the correct answer on the Answer Sheet using BLUE BALL POINT PEN.
- If you are not attempting a question then you have to darken the circle '5'. If none of the five circles is darkened, one third (1/3) part of the marks of question shall be deducted.
- After solving question paper, candidate must ascertain that he/she has darkened one of the circles (bubbles) for each of the questions. Extra time of 10 minutes beyond scheduled time, is provided for this.
- A candidate who has not darkened any of the five circles in more than 10% questions shall be disqualified.
- Mobile Phone or any other electronic gadget in the examination hall is strictly prohibited. A candidate found with any of such objectionable material with him/her will be strictly dealt with as per rules.

Warning: If a candidate is found copying or if any unauthorized material is found in his/her possession, F.I.R. would be lodged against him/her in the Police Station and he/she would be liable to be prosecuted under Rajasthan Public Examination (Measures for Prevention of Unfair means in Recruitment) Act, 2022 & any other laws applicable and Commission's Rules-Regulations. Commission may also debar him/her permanently from all future examinations.

उत्तर-पत्रक में दो प्रतियाँ हैं - मूल प्रति और कार्बन प्रति। परीक्षा समाप्ति पर परीक्षा कक्ष छोड़ने से पूर्व परीक्षार्थी उत्तर-पत्रक की दोनों प्रतियाँ वीक्षक को सौंपेंगे, परीक्षार्थी स्वयं कार्बन प्रति अलग नहीं करें । वीक्षक उत्तर-पत्रक की मूल प्रति को अपने पास जमा कर, कार्बन प्रति को मूल प्रति से कट लाइन से मोड़ कर सावधानीपूर्वक अलग कर परीक्षार्थी को सींपेंगे, जिसे परीक्षार्थी अपने साथ ले जावेंगे । परीक्षार्थी को उत्तर-पत्रक की कार्बन प्रति चयन प्रक्रिया पूर्ण होने तक सुरक्षित रखनी होगी एवं आयोग द्वारा माँगे जाने पर प्रस्तुत करनी होगी ।

- 1. Heart failure is associated with all except:
 - (1) Increased sympathetic activity
 - (2) Increased insulin levels
 - (3) Normal aldosterone level
 - (4) Increased bradykinin
 - (5) Question not attempted
- 2. Which factor predisposes to digitalis toxicity without increasing serum digoxin level?
 - (1) Hypothyroidism
 - (2) Amiodarone
 - (3) Hypercalcemia
 - (4) Verapamil
 - (5) Question not attempted
- 3. Impella cardiac power pump, incorrect statement is:
 - (1) Axial flow continuous pump
 - (2) Flow is 3.5 4 L/min
 - (3) Can be inserted via axillary artery
 - (4) 14 Fr system is used for insertion
 - (5) Question not attempted
- 4. Which statement is not correct about Heart Failure with Preserved Ejection Fraction (HFPEF)?
 - (1) The prevalence is higher in women than men at any given age.
 - (2) Age and higher systolic blood pressure are the risk factors in HFPEF.
 - (3) The absence of significant diastolic dysfunction excludes the diagnosis of HFPEF.
 - (4) Primary cirrhosis can mimic HFPEF syndrome.
 - (5) Question not attempted

5. The false statement about myocarditis is:

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- (1) Bimodal distribution in terms of age.
- (2) Routine troponin I screening for asymptomatic myocarditis without cardiac symptoms is not indicated.
- (3) Right ventricular dysfunction suggest better prognosis.
- (4) There is a risk of late heart failure due to diastolic dysfunction years after the apparent resolution of acute myocarditis.
- (5) Question not attempted
- 6. Which of the following clinical variable is not a part of H2FPEF score?
 - (1) Atrial fibrillation
 - (2) Filling pressure
 - (3) Heart rate
 - (4) Hypertension
 - (5) Question not attempted
- 7. Catecholaminergic Polymorphic VT is characterised by all except:
 - (1) Bidirectional VT
 - (2) Mutation in ryanodine receptors
 - (3) Mutation in CASQ2 genes
 - (4) Calcium channel blockers are first line of treatment
 - (5) Question not attempted

- 8. Antiarrthymic drugs that blocks sodium channel are all except:
 - (1) Flecainide (2) Amiodarone
 - (3) Mexiletine (4) Propafenone
 - (5) Question not attempted
- 9. Gene responsible for familial WPW syndrome is
 - (1) KCNJ5
 - (2) HERG
- (3) SCN5A
- (4) PRKAG2
- (5) Question not attempted
- 10. Re-entry is not the mechanism of tachycardia in which of the following arrthythmias?
 - (1) Atrial fibrillation
 - (2) Atrial flutter
 - (3) Ectopic atrial tachycardia
 - (4) VT
 - (5) Question not attempted
- 11. Long RP interval observed in all SVTs except:
 - (1) Atrial tachycardia
 - (2) Typical AVNRT
 - (3) Atypical AVNRT
 - (4) Orthodromic SVT with slow A.P.
 - (5) Question not attempted
- 12. All are adverse effects of I.V. lidocaine except:
- (1) Visual disturbance
 - (2) Seizures
 - (3) Asystole
 - (4) Ventricular fibrillation
 - (5) Question not attempted

- **13.** Which of the statement regarding disopyramide is not true?
 - (1) It is a class 1A antiarrythmic agent.
 - (2) It is poorly tolerated in patients with heart failure.
 - (3) It is not effective in preventing recurrences of atrial fibrillation.
 - (4) It can cause QT prolongation and result in torsades de pointes.
 - (5) Question not attempted
- 14. Resting membrane potential of sinus nodal cell is
 - (1) -50 to -60 mV
 - (2) -60 to -70 mV
 - (3) -80 to -90 mV
 - (4) -90 to -95 mV
 - (5) Question not attempted
- **15.** Which is not a feature of ventricular tachycardia?
 - (1) ORS duration > 140 m sec
 - (2) ORS axis is North West
 - (3) Captured beat in ECG
 - (4) ORS contour is consistent with aberrant conduction (V_1, V_6)
 - (5) Question not attempted
- 16. Permanent Pacing is one of the modality of treatment in which of the following conditions?
 - (1) Orthostatic hypotension
 - (2) Neuro cardiogenic syncope
 - (3) Hyper adrenergic POTS
 - (4) Partial dysautonomia POTS
 - (5) Question not attempted

- 17. Which ECG finding is highly suggestive of Brugada syndrome?
 - (1) Delta waves in lead V1.
 - (2) ST elevation in V1 V3 with right bundle branch block morphology.
 - (3) Widespread T wave inversions
 - (4) Prolonged QTc > 500 ms
 - (5) Question not attempted
- 18. Which of the following is the most common cause of sudden cardiac death in adults over age 35?
 - (1) Ventricular fibrillation due to coronary artery disease
 - (2) Bradyarrhythmia from AV block
 - (3) Torsades de pointes from drug-induced QT prolongation
 - (4) Aortic dissection
 - (5) Question not attempted
- 19. All correct for performing high quality CPR except:
 - (1) Chest compression at the rate of 80 100/min.
- (2) Compress to a depth of atleast 2 inches.
 - (3) Minimize pauses in compressions.
 - (4) Ventilate adequately 2 breaths after 30 compression.
 - (5) Question not attempted

- **20.** Which of the following statement is correct?
 - (1) Cigarette smoking is a risk factor for hypertension.
 - (2) Smokeless tobacco does not aggravate hypertension.
 - (3) Smokers have polycythemia and decreased fibrinogen.
 - (4) Smoking cessation reduces the excess risk of MI by 50% within 2 years of quitting.
 - (5) Question not attempted
- 21. Which of the following statements regarding homocysteine is false?
 - (1) Inherited defects of methionine metabolism may cause extremely high serum levels of homocysteine and premature atherothrombosis.
 - (2) Polymorphisms in the methylene tetrahydro folate reductase gene are associated with elevated homocysteine levels.
 - (3) Folic acid and other Bvitamin supplements reduce serum homocysteine levels.
 - (4) Dietary supplementation with a combination of B-vitamin (folic acid, B_1 and B_{12}) reduces the risk of atherothrombosis.
 - (5) Question not attempted

- 22. Which of the following statements regarding endurance athletes is not true?
 - (1) Increased cardiac troponin level after exertion are not necessarily benign.
 - (2) Exercise training alone can reduce Atrial Fibrillation (AF).
 - (3) They have increased CAC scores compared to their sedentary counter parts.
 - (4) Plaques in athletes are more likely to rupture and to produce an acute cardiac event.
 - (5) Question not attempted
- 23. Each of the following statements regarding lipoprotein(a) [Lp(a)] is true except:
 - (1) Lp(a) level vary little with changes in dietary fat intake.
 - (2) Elevated Lp(a) levels increase risk of calcific aortic stenosis.
 - (3) Statins decrease Lp(a) levels.
 - (4) PCSK-9 inhibitors reduce Lp(a) levels modestly.
 - (5) Question not attempted
- 24. The true statement about PCSK-9 inhibitors is
 - (1) They decrease Lp(a) level by 25% to 30%.
 - (2) Increased risk of cognitive events with EVOLOCMAB.
 - (3) Oral drugs
 - (4) Fourier trial tested ALIROCUMAB.
 - (5) Question not attempted

- 25. Palmar crease xanthomas are specific for which type of hyperlipoproteinemias?
 - (1) Type 1 (2) Type 2
 - (3) Type 3 (4) Type 4
 - (5) Question not attempted
- 26. Which of the following biomarkers adds prognostic information in preventive cardiology beyond traditional risk scores?
 - (1) ALT
 - (2) CRP
 - (3) Troponin I
 - (4) Serum calcium
 - (5) Question not attempted
- 27. Which of the following is not included in the calculation of the ASCVD pooled cohort risk score?
 - (1) Total cholesterol
 - (2) HDL cholesterol
 - (3) Haemoglobin A1c
 - (4) Systolic blood pressure
 - (5) Question not attempted
- 28. The concept of the "prevention paradox" in cardiovascular disease means:
 - (1) High-risk individuals benefit more than the general population from interventions.
 - (2) Population-wide interventions may have limited benefit for individuals but large public health impact.
 - (3) Preventing heart failure is less cost-effective than treating it.
 - (4) Subclinical atherosclerosis cannot be prevented.
 - (5) Question not attempted

- 29. Which of the following is associated with vulnerable plaque?
 - (1) Small lipid core
 - (2) A thick fibrous cap
 - (3) High smooth-muscle density
 - (4) Neovascularization from the vasa vasorum
 - (5) Question not attempted
- **30.** Inflammatory molecules implicated in atherosclerosis are all except:
 - (1) T. Lymphocytes
 - (2) Interleukin-1
 - (3) Monocyte chemotactic protein-1
 - (4) Tissue plasminogen activator
 - (5) Question not attempted
- **31.** Following cells have important role in development of atherosclerosis except:
 - (1) Endothelium
 - (2) Macrophages
 - (3) Smooth muscle cells
 - (4) Fibroblasts
 - (5) Question not attempted
- **32.** Following parameters are taken into consideration in metabolic syndrome except:
 - (1) HDL cholesterol
 - (2) Triglycerides
 - (3) LDL cholesterol
 - (4) Fasting Glucose
 - (5) Question not attempted

- 33. HYVET (Hypertension in very Elderly Trial) studied antihypertensive class
 - (1) CCB + ARB
 - (2) ACE I + Diuretic
 - (3) ARB + Diuretic
 - (4) CCB + BB
 - (5) Question not attempted
- **34.** Gordon syndrome includes all except:
 - (1) Autosomal mutation of KLHL3
 - (2) Hyperkalemia
 - (3) Metabolic acidosis
 - (4) Abnormal renal function
 - (5) Question not attempted
- **35.** Which statement is not correct regarding antihypertensive agents?
 - (1) Pericardial effusions have been reported with the use of minoxidil.
 - (2) Flushing and tachycardia may result from hydralazine.
 - (3) ACE inhibitor induced cough may persist for 3 weeks or longer after discontinuation of the drug.
 - (4) A pure beta-blocker is the pharmacologic therapy of choice for patients with pheochromocytoma.
 - (5) Question not attempted

- 36. What is the target blood pressure recommended by 2021 ESC guidelines for most hypertensive patients with high cardiovascular risk?
 - (1) < 150/90 mm Hg
 - (2) < 140/90 mm Hg
 - (3) < 130/80 mm Hg
 - (4) < 120/80 mm Hg
 - (5) Question not attempted
- 37. In a black patient with newly diagnosed hypertension and no comorbidities, which drug class is most appropriate first-line therapy?
 - (1) ACE inhibitor
 - (2) ARB
 - (3) Thiazide diuretic
 - (4) Beta-blocker
 - (5) Question not attempted
- 38. The SPRINT trial demonstrated which of the following regarding intensive blood pressure control?
 - (1) Increased risk of stroke
 - (2) No benefit in elderly patients
 - (3) Lower all-cause mortality with SBP target <120 mm Hg
 - (4) Higher rates of heart failure with intensive therapy
 - (5). Question not attempted
- 39. Which of the following is better predictor of cardiovascular outcome?
 - (1) Office BP readings
 - (2) White coat hypertension
 - (3) Masked hypertension
 - (4) Nocturnal hypertension
 - (5) Question not attempted

- 40. Eligibility criteria for renal denervation therapy includes all except:
 - (1) Exclusion of secondary hypertension
 - (2) No Renal Artery Stenosis
 - (3) $eGFR > 90 \text{ ml/min/}1.73 \text{ m}^2$
 - (4) Office BP > 160 mm of Hg
 - (5) Question not attempted
- 41. According to universal classification of Myocardial Infarction (MI), MI related to stent thrombosis is
 - (1) Type 4(a) (2) Type 5
 - (3) Type 4(b) (4) Type 3
 - (5) Question not attempted
- 42. Which of the following is true of patients with acute Mitral Regurgitation (MR) in the setting of myocardial infarction?
 - (1) The onset of MR due to papillary muscle is usually 14 days following myocardial infarction.
 - (2) Acute MR will be detectable at the bedside by the presence of a new-onset, loud, apical systolic murmur.
 - (3) When papillary muscle rupture occurs, the posteromedial papillary muscle is more often involved than the anterolateral muscle.
 - (4) Echocardiography is often insufficient to make the diagnosis.
 - (5) Question not attempted

- 43. All are factors associated with increased risk for complications with carotid artery stent placement
 - (1) Tortuous aortic arch
 - (2) Heavy vessel calcification
 - (3) Difficult vascular access
 - (4) Age 70 years
- (5) Question not attempted
- 44. Spontaneous coronary artery dissection, incorrect statement is:
 - (1) More common in females
 - (2) In the acute phase, stenting is recommended
 - (3) Screening of renal arteries is recommended
 - (4) In survivors, the subsequent 3 year mortality is about 20%
 - (5) Question not attempted
- **45.** Hibernating Myocardium is typified by all features except:
- (1) It is a result of prolonged subacute ischaemia
 - (2) It has preserved metabolic function
 - (3) It has chronic ventricular dysfunction
 - (4) It has normal coronary reserve
 - (5) Question not attempted

- 46. A 30-year-old woman presents with chest pain that worsens with deep breathing and is relieved by sitting forward. On physical exam, you hear a friction rub. What is the most likely diagnosis?
 - (1) Myocardial infarction
 - (2) Pericarditis
 - (3) Pulmonary embolism
 - (4) Acute aortic dissection
 - (5) Question not attempted
- **47.** Regarding reperfusion therapy all are true except:
 - (1) Thrombolysis is indicated within 12 h of presentation
 - (2) PTCA is indicated in electrical instability in STEMI
 - (3) PTCA is a superior treatment to thrombolysis in STEMI
 - (4) PTCA is contraindicated in cardiogenic shock
 - (5) Question not attempted
- 48. Troponin levels are elevated in all conditions except:
 - (1) Pulmonary embolus
 - (2) Septic shock
 - (3) Renal failure
 - (4) Hypertension
 - (5) Question not attempted

- 49. Which statement is false regarding Kawasaki disease?
 - (1) It is a disease of childhood
 - (2) It involves tunica media & tunica intima of vessel wall.
 - (3) Regression of aneurysm do occur
 - (4) Steroids & IV immunoglobulins improve the clinical outcome.
 - (5) Question not attempted
- **50.** Which of the following drugs does not affect the nervous system?
 - (1) Digoxin
 - (2) Quinidine
 - (3) Xylocaine
 - (4) Amlodipine
 - (5) Question not attempted
- 51. Surgical intervention in Thoracic aortic aneurysm is indicated in all except:
 - (1) Annual enlargement is > 10 mm/year
 - (2) Acute ascending aorta dissection
 - (3) Aortic size above 4.5 cm
 - (4) Symptomatic compression of trachea or adjacent organs
 - (5) Question not attempted

- **52.** Severe aortic stenosis has all features except
 - (1) Aortic jet velocity > 4 m/sec
 - (2) Aortic valve area < 1 sq. cm.
 - (3) Index aortic valves area < 0.6 cm²/m²
 - (4) Peak Aortic gradient > 50 mm of Hg
 - (5) Question not attempted
- 53. Which of the findings does not suggest acute severe aortic regurgitation?
 - (1) Loud first heart sound
 - (2) Loud P₂ sound
 - (3) Soft early diastolic murmur
 - (4) LV S₃ present
 - (5) Question not attempted
- 54. Aortic dissection is diagnosed with 100% specific & sensitive, with the help of which test?
 - (1) Plain chest X-ray
 - (2) Trans oesophageal echo
 - (3) 2D Echocardiography
 - (4) Computerised Tomography
 - (5) Question not attempted

- 55. A 28-year-old woman presents with palpitations, chest pain, and occasional dizziness. She has no history of heart failure. A murmur is noted on physical exam, and an echocardiogram reveals a mitral valve prolapse with mild mitral regurgitation. What is the most appropriate management?
 - (1) Antibiotic prophylaxis for endocarditis
 - (2) No treatment necessary, follow-up as needed
 - (3) Initiate beta-blocker therapy
 - (4) Surgical mitral valve repair
 - (5) Question not attempted
- **56.** Which is not a feature of Barlow's disease?
 - (1) Younger (<40 years) age of onset
 - (2) Long history of murmur
 - (3) Duration of disease in decades
 - (4) Holosystolic murmur
 - (5) Question not attempted
- **57.** Which of the following statements is correct?
 - (1) Roth spots are located in the nerve layer of retina.
 - (2) Splinter haemorrhages are diagnostic of infective endocarditis.
 - (3) Janeway lesions are small tender lesions found, most commonly, on the tips of the fingers.
 - (4) Osler nodes are small raised non-tender nodular lesions present most often in the pulp spaces of the terminal phalanges of the fingers.
 - (5) Question not attempted

- 58. Transcatheter Aortic Valve Replacement (TAVR) is most likely to be successful in bicuspid aortic valve with
 - (1) Bulky eccentric calcification
 - (2) Marked annular ovality
 - (3) Non calcified raphe
 - (4) Ascending aortic aneurysmal disease
 - (5) Question not attempted
- **59.** Regarding subcutaneous nodules in Rheumatic fever all are true except:
 - (1) Painful
 - (2) Mobile
 - (3) Size between 0.5 to 2 cm
 - (4) Transient
 - (5) Question not attempted
- **60.** Which of the following statements regarding the natural history of untreated Aortic Stenosis (AS) is true?
 - (1) Syncope due to AS usually occurs at rest.
 - (2) Sudden death in patients with AS usually occurs in previously asymptomatic individuals.
 - (3) Average survival from the onset of congestive heart failure is approximately 2 years.
 - (4) Development of Atrial fibrillation is usually well tolerated in patients with AS.
 - (5) Question not attempted

- 61. St. Jude prosthetic valve is
 - (1) Ball and caged valve
 - (2) Bileaflet valve
 - (3) Tilting disc valve
 - (4) Bioprosthetic valve
 - (5) Question not attempted
- 62. World Heart Foundation Minimum criteria for diagnosis of pathologic Mitral Valvular Regurgitation caused by Rheumatic carditits, on Doppler imaging:
 - (1) Jet length > 2 cm in atleast one view
 - (2) Peak velocity > 3 m/sec
 - (3) Pansystolic jet in atleast one envelope
 - (4) All of these
 - (5) Question not attempted
- **63.** What is inappropriate about congenital absence of pericardium?
 - (1) Usually left parietal pericardium is absent
 - (2) It is associated with ASD
 - (3) Normal chest X-ray
 - (4) Herniation of portion of heart can occur
 - (5) Question not attempted
- **64.** ECG changes in the first stage of acute pericarditis
 - (1) ST segment elevation with convexity upward
 - (2) PR segment elevation
 - (3) T wave inversion
 - (4) PR segment depression
 - (5) Question not attempted

- **65.** Restrictive cardiomyopathy seen in all except :
 - (1) Hemochromatosis
 - (2) Familial amyloidosis
 - (3) Mucopolysaccharidosis
 - (4) Barth syndrome
 - (5) Question not attempted
- **66.** All features are suggestive of cardiac tamponade except :
 - (1) Pulsus Paradoxus
 - (2) Prominent Y descent in JVP
 - (3) Square root sign in ventricular pressure is absent
 - (4) Exaggerated interventricular dependence
 - (5) Question not attempted
- 67. Which statement is not correct about hypertrophic obstructive cardiomyopathy?
- (1) Systolic function is usually impaired to a greater extent than diastolic function.
 - (2) The majority of ventricular emptying is more rapid than usual.
 - (3) Left ventricular end diastolic pressure is usually increased.
 - (4) The systolic pressure gradient may vary on a daily basis.
 - (5) Question not attempted

- 68. All are echocardiographic findings seen in constrictive pericarditis except:
 - (1) Thickening & calcification of pericardium
 - (2) Late diastolic septal bounce
 - (3) Dilated hepatic veins
 - (4) Premature opening of pulmonary valve
 - (5) Question not attempted
- **69.** Peripartum cardiomyopathy, which statement is not correct?
 - (1) Primigravida commonly involved
- (2) Preeclampsia is a risk factor
 - (3) 50% of patients, on standard medical therapy, return to normal LV function
- (4) Spironolactone can be used cautiously later in pregnancy
 - (5) Question not attempted
- **70.** True for constrictive pericarditis except:
 - (1) Square root sign
 - (2) Pulmonary artery systolic pressure > 60 mm Hg
 - (3) Normal longitudinal and decreased circumferential strain
 - (4) Tissue Doppler E' velocity increased
 - (5) Question not attempted

- 71. Gold paint effusion occurs in
 - (1) Hypothyroidism
 - (2) Amyloidosis
 - (3) Polycystic kidney disease
 - (4) Tuberculosis
 - (5) Question not attempted
- 72. Regarding PDA all are correct except:
 - (1) Ductus arteriosus derives from IV aortic arch
 - (2) Predominates in females 2-3:1
 - (3) PDA accounts for 1/3 of cardiac malformation
 - (4) Infective endocarditis is at the narrow pulmonary arterial end
 - (5) Question not attempted
- 73. Long dysplastic pulmonary valve stenosis is featured by all except:
 - (1) Absent commissural fusion
 - (2) Absence of pulmonary ejection click
 - (3) Absence of Pg component of second heart sound
 - (4) Dilated pulmonary trunk
 - (5) Question not attempted

- 74. A 2-day-old premature infant is noted to have a continuous murmur on auscultation. The infant is experiencing tachypnea and poor feeding. The echocardiogram shows a PDA with a significant left-to-right shunt. What is the first-line treatment?
 - (1) Surgical ligation
 - (2) Prostaglandin E1
 - (3) Indomethacin
 - (4) Diuretics
 - (5) Question not attempted
- 75. A 28-year-old woman with Ebstein's anomaly presents with palpitations and presyncope. Her ECG reveals presence of a supraventricular tachycardia. What is the most likely mechanism?
 - (1) AV node reentry
 - (2) Atrial tachycardia
 - (3) Accessory pathway-mediated AVRT
 - (4) Junctional rhythm
 - (5) Question not attempted
- **76.** Clinical recognition of complete TGA is based on following features except:
 - (1) Low birth weight
 - (2) Cyanosis at birth
 - (3) Male child
 - (4) Echo evidence of AV concordance & VA discordance
 - (5) Question not attempted

- 77. Most common congenital heart disease is
 - (1) ASD more repulsed as 1
 - (2) VSD
 - (3) PDA
 - (4) Bicuspid Aortic valve
 - (5) Question not attempted
- 78. Following statement for morphological single LV with pulm stenosis is true except:
 - (1) Cyanosis without heart failure in infancy
 - (2) Modest LV apex with inversely varying systolic murmur of pulmonary stenosis
 - (3) A loud single first heart sound
 - (4) ECG features not significant to reflect either the presence or degree of pulmonary stenosis
 - (5) Question not attempted
- 79. Severe pulmonary stenosis with inter atrial communication is typified by
 - (1) Mild or Intermittent cyanosis
 - (2) Large A wave in JVP with absent pulmonary ejection click
 - (3) ECG shows RVH with RAD, qR in V_1
 - (4) X-ray shows dilated pulmonary trunk with oligemic lung fields
 - (5) Question not attempted

- **80.** Pulmonary artery branch stenosis is associated with all except :
 - (1) Rubella syndrome
 - (2) Turner syndrome
 - (3) Alagille syndrome
 - (4) William syndrome
 - (5) Question not attempted
- 81. In congenital complete heart block, all are true except:
 - (1) It is associated with SLE
 - (2) Seen in left isomerism
 - (3). Narrow ORS complex
 - (4) Regular cannon waves in JVP
 - (5) Question not attempted
- **82.** Holt Oram syndrome is associated & characterized by all except:
 - (1) Os' secundum ASD
 - (2) Hypoplastic thumb
 - (3) Mutation in gene on chromosome 22 q 2
 - (4) Phacomelia, abrachia
 - (5) Question not attempted
- 83. All are features of William syndrome except:
 - (1) Supra valvular aortic stenosis
 - (2) Normolousive
 - (3) Elfin facies

- (4) Infantile hypercalcemia
- (5) Question not attempted

- 84. Following statements are true except:
 - (1) Kartagener syndrome in situs inversus, sinusitis & & bronchiectasis
 - (2) Situs inversus with dextrocardia usually has structurally normal heart
 - (3) Situs inversus with levocardia is associated with complex congenital heart diseases
 - (4) Goldenhar syndrome has been reported with situs solitus with dextrocardia
 - (5) Question not attempted
- 85. Takeuchi repair is done for
 - (1) TGA (2) TAPVC
 - (3) ALCAPA (4) PS
 - (5) Question not attempted
- 86. Which of the following is not a component of Taussig Bing Anomaly?
 - (1) Subpulmonic VSD
 - (2) Side by side Great arteries
 - (3) Double outlet right ventricle
 - (4) Pulmonary atresia
 - (5) Question not attempted

- 87. Which is not true about persistent left superior vena cava draining into left atrium?
 - (1) Coronary sinus is enlarged
 - (2) Cyanosis is present
 - (3) Conotruncal abnormalities are commonly found
- (4) Found in about 8% of persistent left superior vena cava cases
 - (5) Question not attempted
- 88. Which is not true about ostium primum atrial septal defects?
 - (1) Ostium primum ASDS often displace and cause a cleft appearance of both the anterior and posterior leaflets of the mitral valve.
 - (2) Chest radiography usually reveals both right atrium and right ventricular enlargement.
 - (3) Left ventriculography may demonstrate gooseneck deformity.
 - (4) It is associated with Trisomy 21.
 - (5) Question not attempted
- 89. Which statement is not true regarding vascular ring?
 - (1) Double aortic arch is the most common vascular ring
 - (2) Right aortic arch with left ligamentum arteriosum results from persistence of the right fifth branchial arch.
 - (3) Right aortic arch is associated with congenital heart defects in 98% of cases.
 - (4) Aberrant right subclavian artery is commonly found in Down's syndrome with congenital heart defect.
 - (5) Question not attempted

- **90.** Which statement is not correct regarding Ebstein's anomaly?
 - (1) A distance between insertion sites of the two AV valves greater than 8 mm/m² is required for diagnosis of Ebstein malformation of the tricuspid valve.
 - (2) Ebstein like anomaly of the tricuspid valve is a common association of DTGA.
 - (3) Normal jugular venous pressure is seen even with significant tricuspid regurgitation.
 - (4) AVRT is the most common arrhythmia associated.
 - (5) Question not attempted
- 91. A 2 year old boy with Down's syndrome and a heart murmur is brought to your clinic because of poor weight gain, the most likely finding on cardiac auscultation is
- (1) A mid systolic murmur at the upper left sternal border and wide fixed splitting of the second heart sound.
- (2) A blowing diastolic murmur at the right upper sternal border.
- (3) A mid systolic click followed by a late systolic murmur at the apex.
- (4) A late peaking systolic ejection murmur heard best at the upper right sternal border with a diminished second heart sound.
 - (5) Question not attempted

- 92. Which statement is not true regarding congenital heart disease in infancy and childhood?
- (1) The rubella syndrome may be accompanied by patent ductus arteriosus of pulmonic valvular stenosis
- (2) Maternal systemic lupus erythematosus during pregnancy has been linked to congenital complete heart block.
- (3) Approximately one third of infants with both cardiac and extra cardiac congenital anomalies have an established syndrome.
 - (4) Congenital aneurysms of the sinus of Valsalva are seen more frequently in females.
- (5) Question not attempted
- 93. True statement about cardiovascular defects associated with teratogen exposure include all except:
 - (1) Alcohol consumption is the most common teratogen to which human embryo and fetuses are exposed.
 - (2) Lithium ingestion during pregnancy has been associated with tricuspid atresia.
 - (3) Peripheral pulmonary artery stenosis is seen in fetuses exposed to vitamin D.
 - (4) Cleft mitral valve is seen in the fetal hydantoin syndrome
 - (5) Question not attempted

- 94. True statements concerning
 Tetralogy of Fallot (TOF) include
 all except
 - (1) TOF accounts for approximately 10 percent of all forms of congenital heart disease.
 - (2) It is one of the most common causes of cardiac cyanosis in children after 1 year of age.
 - (3) The USD is usually located high in the septum below the right aortic valve cusp.
 - (4) The aortic root is to the left of the origin of the pulmonary artery.
 - (5) Question not attempted
- 95. Which of the following is contraindicated in pregnant women with heart disease due to fetal risk?
 - (1) Beta-blockers
 - (2) ACE inhibitors
 - (3) Digoxin
 - (4) Furosemide
 - (5) Question not attempted
- **96.** Cardiovascular changes during pregnancy includes all except :
 - (1) increase plasma flow
 - (2) increase cardiac output
 - (3) decrease systemic vascular resistance
 - (4) increase in pulm vascular resistance
 - (5) Question not attempted

- 97. Pregnancy with severe hypertension and pulm oedema in setting of preeclampsia.
 - Therapy includes all except:
 - (1) IV Labetalol
 - (2) IV Hydralazine
 - (3) IV Esmolol
- (4) IV Nitroglycerin
 - (5) Question not attempted
- 98. Which of the following is considered a WHO pregnancy risk classification IV (i.e., contraindication to pregnancy)?
 - (1) Mild pulmonary stenosis
 - (2) Corrected Tetralogy of Fallot
 - (3) Severe pulmonary arterial hypertension
 - (4) Bicuspid aortic valve with no stenosis
 - (5) Question not attempted
- 99. In pregnant women with mechanical heart valves, the safest anticoagulation strategy is:
 - (1) Warfarin throughout pregnancy.
 - (2) LMWH throughout pregnancy without anti-Xa monitoring.
 - (3) LMWH with anti-Xa monitoring in the first trimester, then warfarin in 2nd and 3rd trimesters.
 - (4) No anticoagulation until the second trimester.
 - (5) Question not attempted

- beta-blocker to use during pregnancy for maternal arrhythmias or hypertension?
 - (1) Atenolol
 - (2) Metoprolol
 - (3) Propranolol
 - (4) Labetalol
 - (5) Question not attempted
- 101. Which is not a cardiovascular manifestation of hyperthyroidism?

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- (1) Atrial arrhythmia
- (2) Cardiomegaly
- (3) Tachycardia
- (4) Diastolic hypertension
- (5) Question not attempted
- **102.** Effect of aging on cardiovascular system includes all except :
 - (1) Increased left atrium size
 - (2) Decreased platelet activity and aggregability
 - (3) Valvular fibrosis and sclerosis
 - (4) Impaired endothelial function
 - (5) Question not attempted
- 103. Risk factors for Peripartum cardiomyopathy are all except:
 - (1) Advanced maternal age
 - (2) High parity
 - (3) White race
 - (4) Usage of tocolytics
 - (5) Question not attempted

- 104. Hyperthyroidism is associated with following features except:
- (1) Wide pulse pressure
 - (2) Diastolic hypertension
 - (3) Decreased cardiac after load
 - (4) Increased cardiac preload
 - (5) Question not attempted
- 105. Which of the following is not a component of Carney's complex?
 - (1) Cardiac myxoma
 - (2) Hypopigmented skin lesions
 - (3) Hyperactivity of the adrenal glands
 - (4) Pituitary tumours
 - (5) Question not attempted
- **106.** Antiphospholipid syndrome is characterized by all except:
 - (1) Recurrent arterial or venous thrombosis
 - (2) Pregnancy loss
 - (3) Thrombocytopenia
 - (4) Myocardial infarction
 - (5) Question not attempted
- 107. Kawasaki disease, all true except:
 - (1) Coronary aneurysm develops in 50% of untreated cases
 - (2) Affects children less than 5 years
 - (3) Cervical lymphadenopathy
 - (4) Bilateral conjunctivitis
 - (5) Question not attempted

- 108. Clopidogrel resistance is related to enzyme
 - (1) CYP2C19 (2) P2Y12
 - (3) CYP2C9 (4) CYP2D6
 - (5) Question not attempted
- 109. All are biological functions of Vitamin D except:
 - (1) Inhibition of cellular proliferation
 - (2) Stimulates insulin production
 - (3) Inhibits renin production
 - (4) Stimulates renin production
 - (5) Question not attempted
- 110. Which is malignant tumour?
 - (1) Myxoma
 - (2) Rhabdomyoma
 - (3) Sarcoma
 - (4) Haemangioma
 - (5) Question not attempted
- **111.** Acromegaly is associated with all except:
 - (1) Hypertension
 - (2) Hyperlipidemia
 - (3) Insulin resistance
 - (4) Hyper uricaemia
 - (5) Question not attempted
- **112.** All are hypercoagulable states except:
 - (1) Puerperium
 - (2) Pregnancy
 - (3) Hormone therapy
 - (4) VWF deficiency
 - (5) Question not attempted

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True Positive (1) True Positive + False Negative

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- True Negative True Negative + False Positive
- True Positive (3) True Positive + False Positive
- True Negative (4) True Negative + False Negative
- (5) Question not attempted
- 114. What. the cause cardiovascular disease mortality in the world every year?
 - (1) 25%
- (2) 30%
- 35% (3)
- (4) 40%
- Question not attempted (5)
- 115. Which of the following statements is not true?
 - (1) Alpha errors are false positive results
 - (2) Beta errors are false negative results
 - (3)values inform clinical importance
 - The threshold of 0.05 (4) for statistical significance is arbitrary
 - Question not attempted
- 116. What is the projected Global burden of cardiovascular disease in 2030?
 - (1) 18 million
- 20 million (2)
- (3)
 - 22 million (4) 24 million
- (5) Question not attempted

- 117. Which country has the least cardiovascular mortality women rate?
 - (1) France
- Columbia
- China
- (4) Romania
- (5) Question not attempted
- 118. Which modifiable cardiovascular risk factor is responsible for the most morbidity and mortality worldwide?
 - (1) High body mass index
 - (2) High sodium
 - High blood pressure (3)
 - Smoking Smoking Smoking (4)
 - Question not attempted
- 119. Global burden of hypertension in adult population is

 - (1) 20% (2) 30%
 - 35% (3)
- (4) 40%
- Question not attempted (5)
- 120. All are principles of ethical clinical research except:
 - (1) Collaborative partnership of stakeholders
 - Scientific validity to answer (2) clinical question
 - Expert opinion (3)
 - Protecting participants' confidentiality
 - Question not attempted

- 121. Which of the following is true about the genetic basis of Coronary Heart Disease (CHD)?
 - (1) Most of the genetic variants that contribute to CHD are known.
 - (2) Twin studies show decreased risk of CHD if the other twin died of premature CHD.
 - The 9p21-3 allele is (3) associated with a high risk for CHD.
 - (4) Most heritable CHD is due to monogenic disorder.
 - Question not attempted (5)
- 122. The genetic code comprises of all DNA bases except:
 - (1) Adenine
- Cytosine (2)
- (3) Guanine
- (4) Tyrosine
- (5) Question not attempted
- 123. Family history is an important risk factor for all except:
 - (1) Atrial fibrillation
 - (2) Pregnancy induced hypertension
 - Congenital heart diseases
 - (4) Coronary heart disease
 - (5) Question not attempted
- 124. Effect of verapamil is reduced by simultaneous use of following drugs except:
 - (1) Phenytoin

- (2) Rifampicin
 - (3) Barbiturates
 - (4) Isoniazid (INH)
 - Question not attempted

- 125. Which drug has longest half life $(T\frac{1}{2})$?
 - (1) Amlodipine
 - Chlorthalidone (2)
 - (3) Lisinopril
 - (4) Hydrochlorothiazide
 - Question not attempted
- 126. Drug causing release of Nitric oxide from drug itself or endothelium includes all except:
 - (1) Hydralazine (2) Nitrates
 - Diltiazem (4) Nitroprusside
 - Question not attempted
- 127. Alpha receptor blocking activity is present in all except:
 - (1) Prazoein
- (2) Carvedilol
- Labetalol (4) Metoprolol
 - Question not attempted
- 128. Phase I enzymes include all except:
 - (1) CPY 2DC
- (2) CPY 2C19
- (3) G6 PD
- (4) CPY 2B6
- Question not attempted
- 129. Naxos disease is characterised by all except:
- (1) Mutation in desmoplakin gene
 - (2) Autosomal recessive inheritance
 - (3) Wooly hair
 - (4) Palmoplantar keratoderma
 - Question not attempted

- 130. About Marfan's syndrome, the incorrect statement is
 - (1) An autosomal dominant disorder of connective tissue
 - (2) Caused by mutation in FBN2 gene
 - (3) Fibrillin 1 controls the signalling of TGF-B
 - (4) Losartan reduces aortic root growth rate
 - (5) Question not attempted
- **131.** Which of the following drug is not a CYPLD6 substrate?
 - (1) Clopidogrel (2) Propafenone
 - (3) Codeine (4) Carvedilol
 - (5) Question not attempted
- **132.** Each of the following combinations has the potential for significant pharmacological interaction and drug toxicity except:
 - (1) Sildenafil and Nitroglycerine
 - (2) Atorvastatin and Erythromycin
 - (3) Pravastatin and Ketoconazole
 - (4) Digoxin and Verapamil
 - (5) Question not attempted
- 133. Which condition is characterized by mutations in the FBN1 gene, leading to abnormalities in connective tissue?
- (1) Marfan syndrome
- (2) Noonan syndrome
- (3) Turner syndrome
 - (4) William's syndrome
 - (5) Question not attempted

- 134. Which genetic syndrome is associated with aortic aneurysms and dissections, often present in adolescence or early adulthood?
 - (1) Turner syndrome
 - (2) Loeys-Dietz syndrome
 - (3) Familial thoracic aortic aneurysm and aortic dissection
 - (4) Noonan syndrome
 - (5) Question not attempted
- 135. Which gene is most commonly associated with familial hypercholesterolemia?
 - (1) LDLR (2) MYH7
 - (3) FBN1 (4) APOA5
 - (5) Question not attempted
- **136.** Continuous murmur is present in all except:
 - (1) Venous hum
 - (2) PDA
 - (3) VSD with AR
 - (4) Intercostal AV fistula
 - (5) Question not attempted
- 137. What is the minimum recommended duration of moderate-intensity aerobic activity per week for cardiovascular health?
 - (1) 60 minutes (2) 75 minutes
 - (3) 150 minutes (4) 300 minutes

(5) Question not attempted

- 138. Coronary Artery Calcium (CAC) scoring is most useful in:
 - (1) High-risk individuals already on statins
 - (2) Intermediate-risk patients to refine treatment decisions
 - (3) Young adults with no risk factors
 - (4) Routine screening in the elderly
 - (5) Question not attempted
- 139. High risk features in Myocardial Perfusion Imaging are all except:
 - (1) Transient RV tracer uptake
 - (2) Reduced Pulmonary tracer uptake
 - (3) Large single or multiterritorial fixed or reversible myocardial perfusion defects involving >15% of LV mass
 - (4) Transient ischaemic dilation of Left Ventricle
 - (5) Question not attempted
- 140. Phase IV of normal Valsalva response comprises of all except:
 - (1) Over shoot of systolic pressure
 - (2) Reflex bradycardia
 - (3) Decreased systemic vascular resistance
 - (4) Decreased venous return
 - (5) Question not attempted
- **141.** Loud first heart sound is observed in all except:
- (1) Severe calcific mitral stenosis
 - (2) Mild mitral stenosis
 - (3) Mitral valve prolapse without regurgitation
 - (4) Anaemia

(5) Question not attempted

142. Using Doppler ultrasound methods, the following values are obtained in a patient with a restrictive ventricular septal defect and mitral regurgitation:

Systolic transmitral flow velocity = 5.8 m/sec, systolic flow velocity at the site of the USD = 5.1 m/sec. The patient's blood pressure is 144/78 mm Hg. The estimated right ventricular systolic pressure is (choose the single best answer)

- (1) 35 mm Hg (2) 40 mm Hg
- (3) 45 mm Hg (4) 50 mm Hg
- (5) Question not attempted
- 143. Which of the following statement regarding ST segment changes during exercise testing is true?
 - (1) The ECG localization of ST segment depression predicts the anatomic territory of coronary obstructive disease.
 - (2) J point depression during exercise is diagnostic for significant cardiac ischemia.
 - (3) Persistence of ST depression for 60 to 80 msec after the J point is necessary to interpret the ECG response as abnormal.
 - (4) ST segment depression must be present both during exercise and in recovery to be interpreted as abnormal.
 - (5) Question not attempted

- 144. Diastolic heart failure is characterised by all features other than
 - (1) S3 gallop
 - (2) S4 gallop
 - (3) Concentric LVH
 - (4) Normal or reduced ejection fraction
 - (5) Question not attempted
- 145. Which of the following drugs has shown a mortality benefit in HFrEF?
 - (1) Digoxin
 - (2) Loop diuretics
 - (3) Spironolactone
 - (4) Verapamil
 - (5) Question not attempted
- 146. Which of the following is a contraindication to the use of mineralocorticoid receptor antagonists in heart failure patients?
 - (1) Serum creatinine of 1.3 mg/dL in women
 - (2) Serum potassium of 5.4 mmol/L
 - (3) NYHA Class III symptoms
 - (4) Blood pressure of 115/70 mm Hg
 - (5) Question not attempted
- 147. Heart failure prediction model include all factors except
 - (1) Serum CRP levels
 - (2) Systolic blood pressure
 - (3) BMI
 - (4) Heart rate
 - (5) Question not attempted

- 148. Which of the following is not an indication for heart transplantation?
 - NYHA functional class IIIb-IV symptoms despite optimal medical and device therapy.
 - (2) VO2 max of ≤12 to 14

 mL/kg/min and/or VO2 max <
 50% predicted and/or

 VE/VCO2 slope > 35 on

 Cardio Pulmonary Exercise

 Stress Testing (CPET)
 - (3) Cardiogenic shock not expected to recover
 - (4) Congenital heart disease with severe, fixed pulmonary hypertension
 - (5) Question not attempted
- 149. Following terms are related to Starling's law of the heart:
 - (1) End systolic
 - (2) End diastolic
 - (3) Fibre length
 - (4) Force of contraction
 - (5) Question not attempted
- **150.** Cyclosporine levels are increased by all drugs except :
 - (1) Nifedipine
 - (2) Ketoconazole
 - (3) Atorvastatin
 - (4) Amiodarone
 - (5) Question not attempted

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