

**POST GRADUATE DIPLOMA IN CLINICAL  
CARDIOLOGY (PGDCC)**

**Term-End Examination**

**00227**

**December, 2011**

**MCC-001 : FUNDAMENTALS OF CARDIOVASCULAR SYSTEM - I**

*Time : 2 hours*

*Maximum Marks : 60*

**Note :**

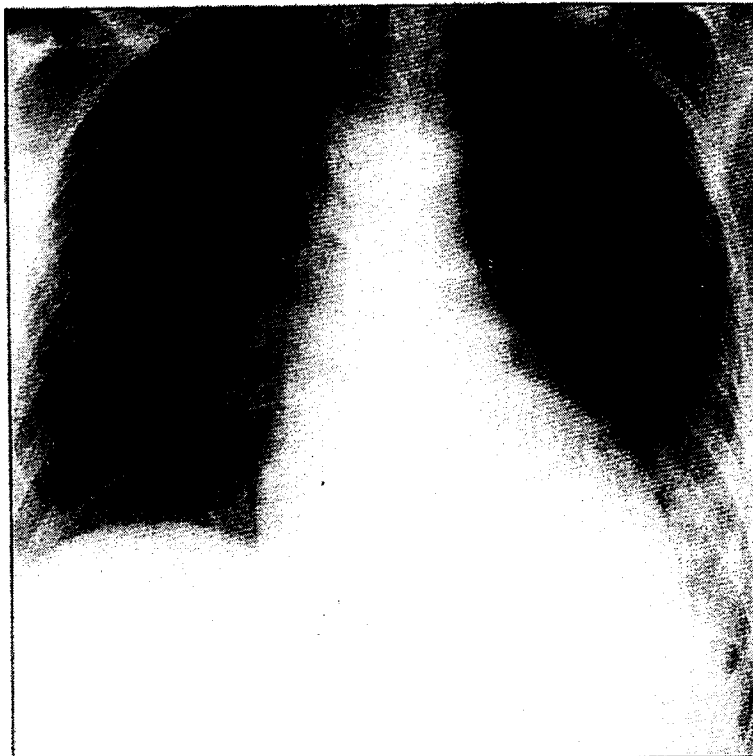
- (i) *There will be multiple choice type of questions in this examination which are to be answered in OMR Answer Sheets.*
- (ii) *All questions are compulsory.*
- (iii) *Each question will have four options and only one of them is correct. Answers have to be marked in figures in the appropriate rectangular boxes corresponding to what is the correct answer and then blacken the circle for the same number in that column by using **HB** or lead pencil and not by ball pen in OMR Answer Sheets.*
- (iv) *If any candidate marks more than one option it will be taken as the wrong answer and no marks will be awarded for this.*
- (v) *There will be 90 questions in this paper and each question carries equal marks.*
- (vi) *There will be no negative marking for wrong answers.*
- (vii) *No candidate shall leave the examination hall at least for **one** hour after the commencement of the examination.*

1. In a normal heart, which of the following structure has the least contribution in forming heart border in chest x-ray frontal view ?
  - (1) Superior vena cava
  - (2) Pulmonary artery
  - (3) Left atrium
  - (4) Left ventricle
  
2. Which of the following statement regarding right atrium is incorrect ?
  - (1) The sinus venarum is derived from sinus venosus.
  - (2) Right atrial appendage is finger-like with narrow base.
  - (3) Atrio-ventricular septum separates right atrium from left ventricle.
  - (4) Crista terminalis separates atrium proper from sinus venarum.
  
3. Which of the following statement regarding left atrium is incorrect ?
  - (1) Left atrium is a thin walled cavity
  - (2) The opening of the appendage represents the junction between the embryonic sinus venosus and atrium proper
  - (3) The pulmonary veins drain in the inferior part of the left atrium
  - (4) The muscoli pectinati are present only in the auricle
  
4. Which of the following statement regarding atrial septum is not true ?
  - (1) Fossa ovalis consists of a limbus formed by septum secundum.
  - (2) Primum ASD involves defect in septum primum.
  - (3) Part of atrial septum seen from right side separates right atrium from left ventricle.
  - (4) Foramen ovale shunt right to left during fetal life.
  
5. The following morphological features are characteristic of right ventricle except :
  - (1) Moderator band
  - (2) Smooth septal surface
  - (3) Lower (apical) attachment of tricuspid annulus
  - (4) Crescentic shape of the cavity
  
6. Triangle of Koch is formed by following except :
  - (1) Eustachian valve
  - (2) Septal tricuspid annulus
  - (3) Coronary sinus ostium
  - (4) Tendon of Todaro
  
7. Which of the following statements regarding left coronary artery is not correct ?
  - (1) Arises from left posterior aortic sinus
  - (2) Its branches supply most commonly postero-medial papillary muscle of mitral valve
  - (3) The posterior descending artery arises from left coronary in 10% cases
  - (4) It supply the anterior 2/3 of the interventricular septum

8. Right coronary artery supply all the following structures except :  
(1) SA node                      (2) AV node                      (3) Right atrium                      (4) Left atrium
9. Following statements about the cardiac conduction system is correct except :  
(1) SA node is always supplied by right coronary artery  
(2) The AV node is a right atrial structure  
(3) The fibrous skeleton of the heart ensure the ventricles are relaxed when the atrium contracts  
(4) The cardiac impulse reaches papillary muscles before the ventricle
10. Following statement regarding cardiac cycle is correct except :  
(1) P - wave corresponds to atrial systole  
(2) R - wave corresponds to isovolumetric contraction  
(3) T -wave corresponds isovolumetric relaxation  
(4) The fourth heart sound corresponds to atrial systole
11. Which of the following statements is not true ?  
(1) The cardiac output is equal to stroke volume multiplied by heart rate  
(2) Preload is influenced by the systemic vascular resistance  
(3) Venous return increases during inspiration  
(4) Nitric oxide is a vasodilator
12. Following statement about the interventricular septum is incorrect :  
(1) The membranous septum lies midway between the pulmonary valve annulus and the inferior aspect of tricuspid annulus.  
(2) Failure of fusion of muscular portion of interventricular septum to fuse with the free edge of conal septum leads to membranous VSD  
(3) The membranous septum lies beneath the left posterior aortic cusp.  
(4) The interventricular septum is finely trabeculated on the left ventricular surface.
13. Which of the following statements are incorrect :  
(1) The fundamental contractile unit in heart is the sarcomere  
(2) Tropomyosin blocks the myosin binding sites on actin during resting state  
(3) Free fatty acids are the main energy substrate for myocardium during exercise  
(4) Catecholamines increases myocardial oxygen demand
14. Which of the following statements regarding cardiac embryology is correct :  
(1) Normal cardiac looping is towards left side  
(2) Developing heart began to beat by 8 weeks  
(3) The left atrial appendage represents the embryonic atrium  
(4) The failure of truncoconal swelling to grow results in transposition of great arteries.

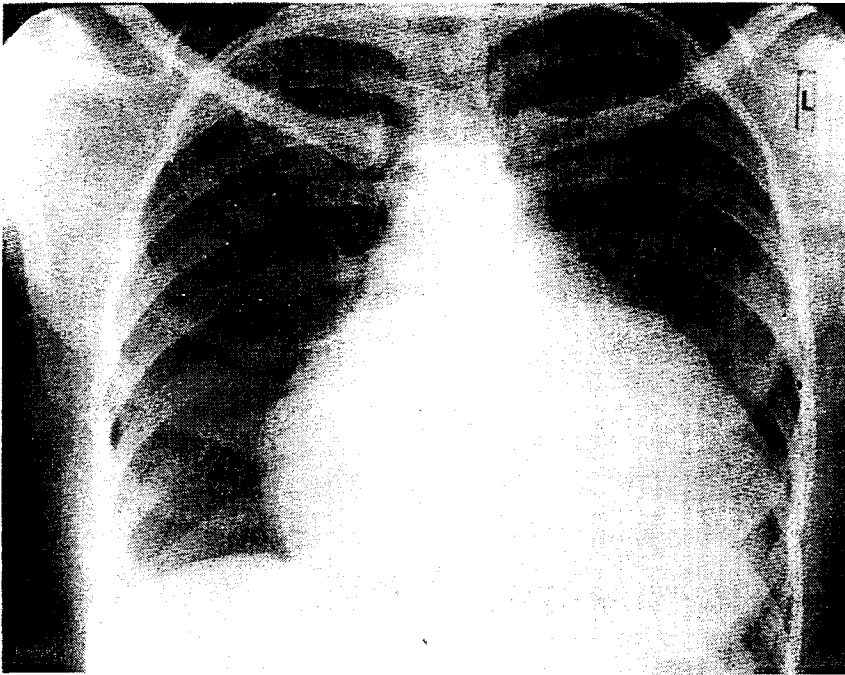
15. All are essential components of TOF except :
- (1) Valvular pulmonic stenosis
  - (2) Right ventricular hypertrophy
  - (3) Infundibular stenosis
  - (4) Aorta overriding
16. Which cardiac chamber does not contribute to cardiac silhouette in chest x-ray PA view ?
- (1) Right atrium      (2) Right ventricle      (3) Left atrium      (4) Left ventricle
17. Regarding chest x-ray lateral view, which of the following statement is incorrect ?
- (1) The obliteration of retro-sternal space suggest enlargement of right ventricle
  - (2) Helps in differentiating the thymus shadow in children from heart shadow
  - (3) Defines lobar pathology and assesses lobar volume loss
  - (4) Hoffman Rigler sign is due to LA enlargement
18. Which of the following statements is not correct ?
- (1) In right anterior oblique view the spine lies on the right of the heart shadow
  - (2) The aorta is better seen in left anterior oblique view
  - (3) Increase in convexity of pulmonary conus is seen in pulmonary arterial hypertension
  - (4) Straightening of left heart border is seen in PA enlargement
19. Identify the wrong statement :
- (1) Pulmonary plethora is defined as 5 or more end on vessels in one lung field
  - (2) The earliest change in pulmonary venous hypertension appears in upper zone
  - (3) Right atrial enlargement results in right atrial shadow occupying more than 2½ interspaces in vertical direction
  - (4) Sharp pruning of peripheral pulmonary vasculature is seen in pulmonary arterial hypertension
20. Left ventricular enlargement results in following features on chest x-ray except :
- (1) Cardiomegaly in PA view
  - (2) Sternal contact sign in lateral view
  - (3) Down and outward displacement of apex in PA view
  - (4) Extension behind the barium filled esophagus in lateral view
21. Following statement regarding the atrio-ventricular canal is wrong :
- (1) The failure of AV canal to shift to right will leads to double inlet left ventricle
  - (2) The failure of the superior and inferior cushions to fuse leads to complete AV septal defect
  - (3) Failure of superior endocardial cushion to fuse with septum primum leads to secundum ASD
  - (4) Partial AV canal defect is usually associated with cleft mitral valve

22. All of the following are involved in coronary vasodilatation by acetylcholine except :  
(1) NO (2) Cyclic GMP (3) Cyclic AMP (4) Guanylyl cyclase
23. All of the following are determinants of myocardial oxygen consumption except :  
(1) Heart rate (2) Left ventricular contractility  
(3) Diastolic pressure (4) Systolic pressure
24. 'Shadow within shadow' is a radiological description for :  
(1) Left atrial enlargement (2) Left ventricular enlargement  
(3) Aortic valve prosthesis (4) Mitral valve prosthesis
25. Which of the following statements is not correct ?  
(1) Normal cardiothoracic ratio in adult chest X-ray is 50%  
(2) Normal cardiothoracic ratio in neonates is 60%  
(3) A change in diameter of heart of more than 1.5 cm between two radiograph is considered significant  
(4) Cardiothoracic ratio more than 60% can be seen in blacks and Asians
26. The lesion in chest x-ray can be following except :



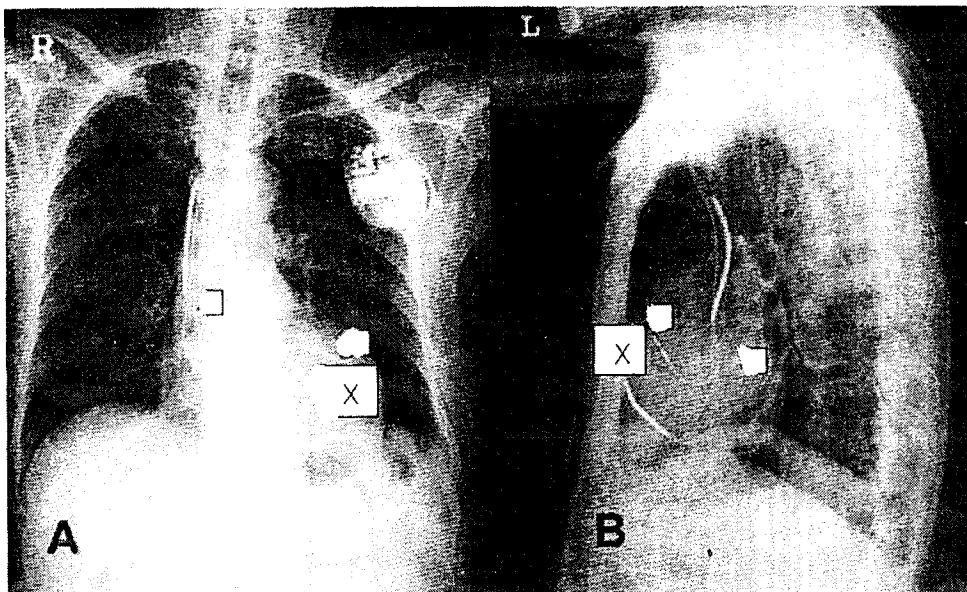
- (1) Pleural effusion (2) Pulmonary embolism  
(3) Lobar pneumonia (4) Pericardial effusion

27. The chest x-ray shown below can be seen in following condition except :



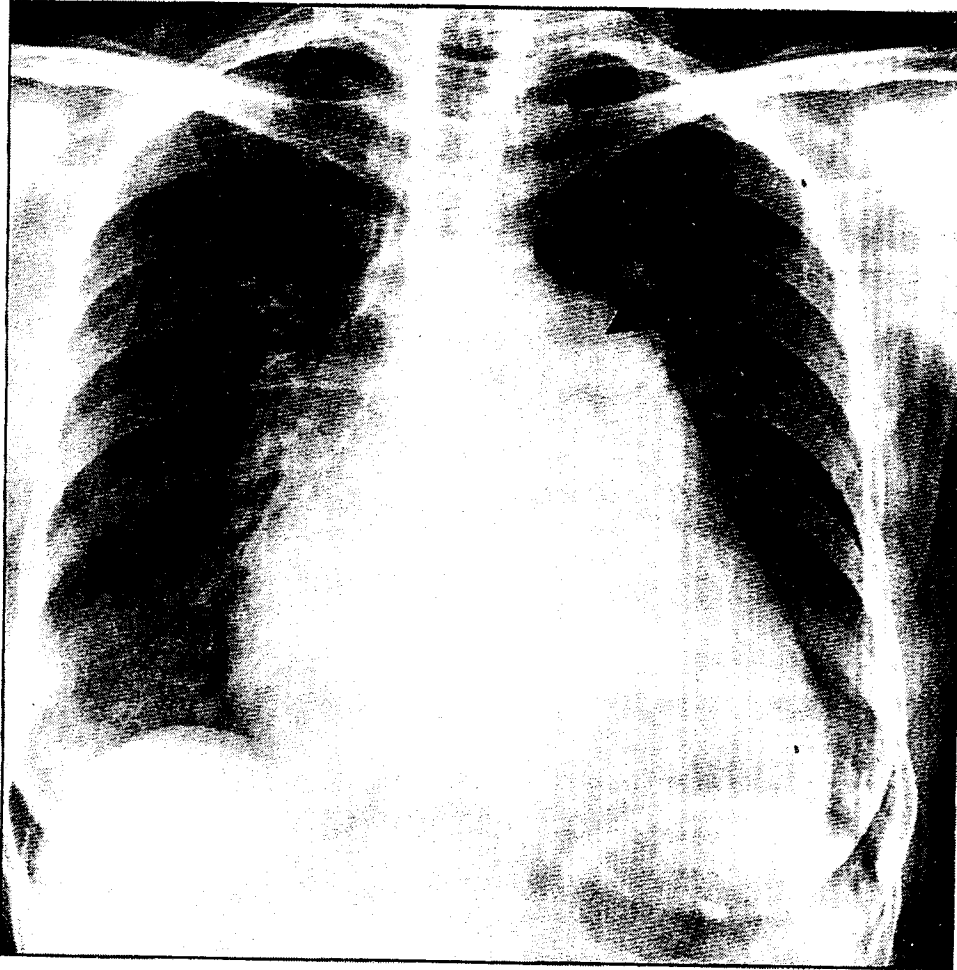
- |                          |                            |
|--------------------------|----------------------------|
| (1) Pericardial effusion | (2) Dilated cardiomyopathy |
| (3) Ebstein's anomaly    | (4) Aortic regurgitation   |

28. Identify the location of pacing lead x :



- |                  |                     |                    |                 |
|------------------|---------------------|--------------------|-----------------|
| (1) Right atrium | (2) Right ventricle | (3) Left ventricle | (4) Left atrium |
|------------------|---------------------|--------------------|-----------------|

29. Identify the structure marked by arrow -



- |                           |                           |
|---------------------------|---------------------------|
| (1) Aortic knuckle        | (2) Left atrial appendage |
| (3) Main pulmonary artery | (4) Left atrium           |

30. A female come with complaints of chest pain. On examination she is found to have pericarditis with pericardial effusion. The pain is mediated by :

- |                         |                                |
|-------------------------|--------------------------------|
| (1) Deep cardiac plexus | (2) Superficial cardiac plexus |
| (3) Phrenic nerve       | (4) Subcostal nerve            |

31. A 12 - month-old child is diagnosed with an atrial septal defect. What is the most common cause of such a congenital heart malformation ?

- (1) Failure of formation of the septum primum
- (2) Failure of formation of the septum secundum
- (3) Incomplete adhesion between the septum primum and septum secundum
- (4) Malformation of the membranous interventricular septum

32. From which of the following fetal vessels do the umbilical arteries arise ?  
 (1) Aorta (2) Carotid arteries  
 (3) Ductus arteriosus (4) Iliac arteries
33. What is the origin of the definitive myocardium of the adult heart ?  
 (1) Endoderm (2) Somatopleuric mesoderm  
 (3) Hypoblast (4) Splanchnopleuric mesoderm
34. Which of the following is NOT affected by preload in heart muscle :  
 (1) End diastolic volume (2) Stroke volume  
 (3) End systolic volume (4) Cardiac output
35. Which of the following is INCORRECT concerning isotonic contraction in the heart ?  
 (1) One occurs during the ejection phase of the cardiac cycle.  
 (2) It is typically the first step in heart muscle contraction followed by an isometric contraction.  
 (3) It involves a change in muscle length against a constant load.  
 (4) An increased after load will slow the velocity of muscle shortening.
36. Which of the following vessels has the largest effect on total peripheral resistance ?  
 (1) Arteries (2) Arterioles (3) Veins (4) Capillaries
37. Which of the following is a correct formula for the mean arterial blood pressure ?  
 (1)  $MAP = CO \times SV$  (2)  $MAP = CO \times HR$   
 (3)  $MAP = SV \times HR \times TPR$  (4)  $MAP = HR \times TPR$
38. First heart sound occurs during the period of :  
 (1) Isotonic contraction (2) Isotonic relaxation  
 (3) Isovolumetric contraction (4) Isovolumetric relaxation
39. Which of the following is not increased during exercise  
 (1) Stroke volume (2) Total peripheral resistance  
 (3) Systolic BP (4) Heart rate
40. Regarding the normal heart following is true :  
 (1) Its apex is at the level of left fifth intercostal space.  
 (2) Its base is directed downward.  
 (3) Its veins drain into the superior vena cava.  
 (4) Its mitral valve has 3 cusps.



41. What structure does the proximal third of the bulbus cordis become ?
- (1) Right Ventricle
  - (2) Left Ventricle
  - (3) Ventricular Outflow Tracts
  - (4) Left and Right Atria
42. Which of the following is true about the cardiovascular system ?
- (1) pulmonary arteries carry oxygenated blood to the lungs from the right heart
  - (2) all heart muscle cells are capable of spontaneous contraction
  - (3) the SA node is the pacemaker of the heart because it has the fastest rate of spontaneous depolarization
  - (4) in early diastole the ventricles begin to contract
43. Following statement regarding the coronaries is incorrect :
- (1) Left anterior descending artery is also known as anterior interventricular artery
  - (2) Diagonal artery is largest branch of left anterior descending artery
  - (3) Branches from left circumflex and right coronary artery is known as marginal's
  - (4) The AV nodal artery arises from the left coronary artery in majority
44. Following statements about the pericardium is true EXCEPT :
- (1) Pericardium has two layers-fibrous and serous
  - (2) The serous pericardium has two layers-outer parietal and inner visceral
  - (3) The parietal layer is also called as epicardium
  - (4) The pericardium is conical in shape
45. Which of the following statement is incorrect :
- (1) The pulmonary auscultatory area is at the second left parasternal region
  - (2) The aortic auscultatory area is at sternal margin of the left 3<sup>rd</sup> intercostal space
  - (3) The mitral auscultatory area is just over the apex
  - (4) The tricuspid auscultatory area is at lower end of the body of the sternum
46. All of the following statements regarding Cardiothoracic ratio, measured using chest x - ray are correct, except :
- (1) Cardiothoracic Ratio is the transverse cardiac diameter divided by the transverse chest diameter
  - (2) Normal Cardiothoracic ratio is upto 0.5 in adults and 0.6 in children.
  - (3) The Cardiac diameter is less than 13.5 cm in 90% males and 12.5 cms in 90% females
  - (4) A change in diameter of greater than 1.8 cms between two radiographs is considered significant.

47. All of the following Radiological features Suggest Left atrial enlargement except :
- (1) Double density
  - (2) Straightened Left Heart border
  - (3) Elevated Right main Bronchus
  - (4) Displaced descending thoracic Aorta
48. Hoarseness of voice due to compression of left recurrent laryngeal nerve in mitral stenosis is called :
- (1) Broadbents Sign
  - (2) Levines Sign
  - (3) Scimitars Syndrome
  - (4) Ortners Syndrome
49. Which of the following is the correct formula for calculating Body Mass Index ?
- (1) Height in metre <sup>2</sup>/weight in kgs
  - (2) Weight in kgs/Height in cm<sup>2</sup>
  - (3) Weight in kgs/Height in m<sup>2</sup>
  - (4) Height in cm<sup>2</sup>/weight in kgs
50. Which one of the following statements regarding pulsus Paradoxus is incorrect ?
- (1) Pulse volume becomes smaller in Inspiration and larger in expiration
  - (2) Can be detected by carefully examining the patients blood pressure and pulse at bed side.
  - (3) Pulse volume becomes larger in inspiration and smaller in expiration
  - (4) Seen in Cardiac tamponade and advanced emphysema.
51. Tall 'a' waves in JVP may be seen in all of these conditions except :
- (1) Atrial myxoma
  - (2) Pulmonary stenosis
  - (3) Atrial Fibrillation
  - (4) Tricuspid stenosis.
52. Which of the following statements regarding technique of blood pressure measurement (as recommended) by JNC VII is incorrect ?
- (1) Patient should refrain from smoking or ingestion of caffeine during the 30 minutes preceeding the measurement.
  - (2) The bladder with cuff should encircle atleast 80% of the arm
  - (3) Measurement should begin after atleast 10 minutes of rest
  - (4) Preferably mercury sphygmomanometer should be used
53. The duration of the normal QRS complex is :
- (1) 0.03 - 0.10 sec.
  - (2) 0.06 - 0.12 sec
  - (3) 0.08 - 0.20 sec
  - (4) 0.02 - 0.08 sec
54. All of the following statements regarding the Right Coronary Artery are correct except :
- (1) It arises from the anterior aortic sinus
  - (2) It arises from the left posterior aortic sinus
  - (3) Supplies the right atrium, right ventricle and conduction system of the heart
  - (4) Marginal and posterior interventricular branches arise from the right coronary artery

55. All of the following statements regarding Cardiac Muscle are correct except :
- (1) The energy needed for cross bridge formation is provided by ATP
  - (2) Tropomyosin is a regulatory protein
  - (3) During Systole there is a 20 fold increase in Calcium concentration
  - (4) In resting state the major source of energy is Free Fatty Acid. (FFA)
56. All of the following statements regarding the mitral valve are correct except :
- (1) Mitral valve has an anterior and a posterior cusp
  - (2) The anterior cusp is larger and is attached to the upper right part of the margin of the left AV orifice
  - (3) The posterior cusp intervenes between the mitral and aortic orifices
  - (4) There are two papillary muscles connected to the two mitral cusps
57. Atrial fibrillation in JVP is characterised by :
- (1) Cannon 'a' waves
  - (2) Tall 'a' waves
  - (3) absent 'a' waves
  - (4) prominent 'y' descent
58. All of the following statements regarding apical impulse are correct except :
- (1) It is the lower most and outermost point on the chest at which cardiac impulse can be palpated
  - (2) It is normally felt in the 6<sup>th</sup> intercostal space lateral to mid clavicular line and occupies an area of 2.5xcm<sup>2</sup>
  - (3) It is palpable as a brief outward motion
  - (4) Displacement of apical impulse 10 cms lateral to midsternal line suggests left ventricular enlargement
59. Pericardial knock in constrictive pericarditis is an :
- (1) Early loud S<sub>1</sub>
  - (2) Early loud S<sub>2</sub>
  - (3) Early loud S<sub>3</sub>
  - (4) Early loud S<sub>4</sub>
60. All of the following are true regarding S<sub>4</sub> except :
- (1) Is always pathological
  - (2) Is not heard in constrictive pericarditis
  - (3) Almost all patients of MI have S<sub>4</sub>
  - (4) S<sub>4</sub> is often heard in LVH, acute MR, HOCM.
61. All of the following statements are correct regarding ECG changes in hypokalemia except :
- (1) QRS complex widens once Serum potassium falls below 3 mEq/L
  - (2) QTc increases
  - (3) Prominent u waves seen
  - (4) The u waves reach giant size and fuse with T waves when the levels drop to 2.5 mEq/L

62. All statements are true regarding Ventricular activation time except :
- (1) also called Intrinsicoid deflection
  - (2) Can be estimated using Surface ECG
  - (3) In right oriented leads normal VAT is 0.02 sec
  - (4) In left oriented leads VAT should not exceed 0.06 sec
63. Carotid Sinus massage in SVT Can lead to which of the following :
- (1) SVT may get accelerated
  - (2) Can help expose underlying av dissociation"
  - (3) may terminate the SVT or leave it unaltered
  - (4) all of the above can happen
64. The intermittent Captured beat during ventricular tachycardia is also called :
- (1) Dressler beat
  - (2) Osbourne wave
  - (3) Fusion beat
  - (4) Rabbit ear Sign
65. Lead  $V_4$  using ECG recording is placed in :
- (1) 4<sup>th</sup> intercostal space in midclavicular line.
  - (2) 5<sup>th</sup> intercostal space in midclavicular line.
  - (3) 4<sup>th</sup> intercostal space outside midclavicular line.
  - (4) 5<sup>th</sup> intercostal space outside midclavicular line.
66. The most common ECG findings in Pulmonary embolism are all of the following except :
- (1)  $S_1Q_3T_3$  pattern
  - (2) Sinus tachycardia
  - (3) T inversion in anterior chest leads
  - (4) new onset atrial fibrillation
67. All of the following are ECG features of acute pericarditis except :
- (1) loss of R wave progression
  - (2) diffuse STsegment elevation
  - (3) PR segment depression
  - (4) Absence of reciprocal ST-T changes
68. Paroxysmal Atrial Tachycardia with Block is classically associated with the toxicity of :
- (1) Phenothiazines
  - (2) Digitalis
  - (3) Antidepressants
  - (4) Antihistaminics

69. Of the following which is most commonly associated with Accelerated functional rhythm :
- (1) Valve replacement Surgery
  - (2) Cardiomyopathy
  - (3) Digitalis toxicity
  - (4) Myocardial Infarction.
70. Congenital long QT syndrome (Jarvell Lange Nielsen Syndrome) is characterised by all of the following except :
- (1) Sudden cardiac death
  - (2) Autosomal dominant, normal hearing
  - (3) Autosomal Recessive, neural deafness
  - (4) May be cause of unexplained syncope in childhood.
71. In the modified Bruce protocol there are :
- (1) three 3 minute stages at 2.0mph at grade 0%, 5% and 10%
  - (2) two 3 minute stages at 1.7mph at grade 0% and 5%
  - (3) two 4 minute stages at 2.0mph at grade 0% and 10%
  - (4) three 2 minute stages at 1.7 mph at grade 0%, 5% and 10%
72. Which of the following statements regarding Treadmill testing is false :
- (1) Firm grip of hand rail overestimates exercise performance
  - (2) The exercise in Bruce protocol starts at a speed of 1.7mph and elevation grade 12%
  - (3) The ECG electrode placement is called Mason Likar modification
  - (4) THR = 85% of MHR
73. Grucins Syndrome is also called :
- (1) Post pericardiotomy Syndrome
  - (2) Syndrome X
  - (3) Early Repolarisation Syndrome
  - (4) WPW Syndrome
74. All of the following are contraindications to stress testing except :
- (1) Moderate Aortic stenosis
  - (2) Advanced av block
  - (3) Uncontrolled hypertension
  - (4) Unstable angina with recent rest pain
75. Of the following which recieves the least points in the Romhilt Estes scoring system :
- (1) Voltage criteria
  - (2) LAE in V1
  - (3) ST-T abnormalities in absence of digitalis
  - (4) Delayed intrinsicoid deflection in V<sub>5</sub> or V<sub>6</sub>

76. Differential cyanosis is seen occurring in which of the following condition after Pulmonary arterial hypertension results in shunt reversal :
- (1) PDA                      (2) ASD                      (3) VSD                      (4) TOF
77. The swelling and tenderness around the wrist joint in grade (IV) clubbing is due to deposition of :
- (1) Glycosaminoglycans                      (2) Mucopolysaccharide  
(3) Collagen                      (4) Calcium
78. Which of the following is correct shorter the A<sub>2</sub>O<sub>5</sub> gap in mitral stenosis ?
- (1) Greater is the severity of mitral stenosis  
(2) Lesser is the severity of mitral stenosis  
(3) No correlation with severity of stenosis  
(4) Indicates associated severe MR
79. Which of the following statements corresponds to phase III of Valsalva manoeuvre ?
- (1) Reduced venous return and systolic BP with reflex tachycardia  
(2) Abrupt transient reductions in systemic BP as straining ceases  
(3) Overshoot of systemic BP and reflex bradycardia  
(4) A<sub>2</sub>P<sub>2</sub> interval narrows
80. Fleischners sign on chest x-ray in patients with pulmonary embolism is characterised by :
- (1) dilatation of the pulmonary vessels at or proximal to an embolism  
(2) Combination of the enlargement of the pulmonary artery due to thrombus, with distal oligemia  
(3) Pulmonary plethora  
(4) a triangular or rounded pleural based in filtrate with the apex pointed towards the hilum suggesting pulmonary infarction.
81. Mediastinum is said to be widened when the mediastinal width on chest x ray (AP view) is greater than :
- (1) 5 cms                      (2) 8 cms                      (3) 10 cms                      (4) 12 cms

82. All of the following are correct except : ST elevation on stress testing in post MI patients is :
- (1) Seen in leads where Q waves are present
  - (2) has been correlated with abnormal wall motion in area of infarction
  - (3) 90% of patients who had predischage ST elevation on stress testing will have absence of these changes on subsequent stress testing at 6 weeks
  - (4) Is less commonly seen in patients who had Inferior wall MI.
83. The commonest form of pathway associated with 'typical AVNRT' is the :
- (1) slow - slow type
  - (2) fast - fast type
  - (3) slow- fast type
  - (4) fast - slow type
84. Atrial fibrillation when occurs in patients with wpw syndrome can lead to :
- (1) Cardiomyopathy
  - (2) Sudden cardiac death
  - (3) No significant effects
  - (4) Myocardial Infarction
85. During embryonic development the right vitelline vein becomes the :
- (1) Superior Vena Cava
  - (2) Inferior Vena Cava
  - (3) Pulmonary Vein
  - (4) Pulmonary artery
86. The partitioning of the Atrium begins with the appearance of :
- (1) Septum primum at about 28<sup>th</sup> day
  - (2) Septum primum at about 43<sup>rd</sup> day
  - (3) Septum secendum at about 28<sup>th</sup> day
  - (4) Septum Secendum at about 43<sup>rd</sup> day
87. Platypnoea is Breathlessness in :
- (1) lying down position
  - (2) Sitting position
  - (3) Standing postion
  - (4) Decubitus postion

88. Very loud murmur which can be heard with rim of the stethoscope touching the skin is Levine Grade :

- (1) Grade 3                      (2) Grade 4                      (3) Grade 5                      (4) Grade 6

89. Which of the following Grades of Murmur are accompanied by a thrill :

- (1) Grade 2,3,4                      (2) Grade 3,4,5                      (3) Grade 4,5,6                      (4) Grade 5,6

90. 1 mm deviation along the y axis on the ECG paper corresponds to a voltage of :

- (1) 0.5 MV                      (2) 1.0 MV                      (3) 0.75 MV                      (4) 0.10 MV

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