

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

01333

Term-End Examination

June, 2014

MCC-005 : COMMON CARDIOVASCULAR DISEASES-III

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) *Erase completely any error or unintended marks.*
- (vi) *There will be **90** questions in this paper and each question carries **equal** marks.*
- (vii) *There will be no negative marking for wrong answers.*
- (viii) *No candidate shall leave the examination hall at least for one hour after the commencement of the examination.*

1. Which of the following is not an obstructive Acyanotic Congenital Heart Disease ?
 - (1) Coarctation of Aorta
 - (2) Aortopulmonary Window
 - (3) Supramitral Membrane
 - (4) Discrete Subaortic Stenosis

2. The heart murmur in Atrial Septal Defect arises at the level of _____.
 - (1) Atrial Septum
 - (2) Tricuspid Valve
 - (3) Pulmonary Valve
 - (4) Mitral Valve

3. Which of the following conditions tends to abolish respiratory variations in systemic venous return ?
 - (1) Aortopulmonary Window
 - (2) Patent Ductus Arteriosus
 - (3) Ventricular Septal Defect
 - (4) Atrial Septal Defect

4. Which of the following is associated with late onset congestive heart failure ?
 - (1) Ventricular Septal Defect
 - (2) Patent Ductus Arteriosus
 - (3) Atrial Septal Defect
 - (4) Aortopulmonary Window

5. Which of the following is **not** a type of ventricular septal defect ?
 - (1) Perimembranous
 - (2) Marginal Muscular
 - (3) Unroofed Coronary Sinus
 - (4) Outlet

6. Paradoxical Splitting of second heart sound is noted with which of the following conditions ?
 - (1) Large Patent Ductus Arteriosus
 - (2) Small Patent Ductus Arteriosus
 - (3) Patent Ductus Arteriosus with Reversal of Shunt
 - (4) Restrictive Ventricular Septal Defect

7. Volume overload of left heart is **not** noted with which of the following conditions ?
 - (1) Large Ventricular Septal Defect
 - (2) Large Patent Ductus Arteriosus
 - (3) Large Atrial Septal Defect
 - (4) Large Aorto Pulmonary Window

8. Supravalvar Pulmonary Stenosis is associated with which of the following syndromes ?
- (1) Kartagener Syndrome (2) William Syndrome
(3) Patau Syndrome (4) Cri Du Chat Syndrome
9. Which of the following conditions would most likely present with a murmur at birth ?
- (1) Congenital Severe Aortic Stenosis (2) Ventricular Septal Defect
(3) Patent Ductus Arteriosus (4) Atrial Septal Defect
10. A child presents with left ventricular failure in infancy. The most likely diagnosis is :
- (1) Large Atrial Septal Defect (2) Coarctation of Aorta
(3) Congenital Mitral Stenosis (4) Tetralogy of Fallot
11. A child presenting with deep cyanosis in a case of Tetralogy of Fallot, is least likely to have which of the following ?
- (1) Mild Pulmonary Stenosis (2) Silent Large Ventricular Septal Defect
(3) No Thrill of Pulmonary Stenosis (4) Worsening of Cyanosis in Knee Chest Position
12. Which of the following would not be a differential diagnosis for cyanotic congenital heart disease with reduced pulmonary blood flow ?
- (1) Transposition of Great Arteries with VSD with PS
(2) Single Ventricle
(3) Double Outlet Right Ventricle with PS
(4) Fallot's Tetralogy
13. Cyanotic Spells are common in the following age group :
- (1) 2 months to 2 years (2) 2 years to 4 years
(3) 4 - 6 years (4) 6 - 8 years
14. Double Discordance is associated with which of the following conditions ?
- (1) Transposition of Great Arteries (2) Single Ventricle
(3) Double Outlet Right Ventricle (4) Corrected Transposition of Great Arteries

15. Which of the following does **not** have a continuous murmur ?
- (1) Ruptured Sinus of Valsalva to Right Atrium
 - (2) Ruptured Sinus of Valsalva to Left Atrium
 - (3) Ruptured Sinus of Valsalva to Right Ventricle
 - (4) Ruptured Sinus of Valsalva to Left Ventricle
16. Symptoms of slow feeding with frequent crying, such-rest-suck cycles, increased crying after passing stool in an infant are mostly suggestive of :
- (1) Congestive Heart Failure
 - (2) Hypoxia
 - (3) Cyanosis
 - (4) Respiratory Tract Infection
17. All of the following are Left to Right shunts expect :
- (1) ASD
 - (2) VSD
 - (3) Eisenmenger's syndrome
 - (4) PDA
18. Which of the following anti-arrhythmics cause shortening of action potential duration ?
- (1) Sotalol
 - (2) Quinidine
 - (3) Lidocaine
 - (4) Flecainide
19. The 4th position in the naspe/bpeg generic code for pacemaker nomenclature is used to designate :
- (1) Chamber Paced
 - (2) Chamber Sensed
 - (3) Response to sensing
 - (4) Rate Response
20. Anti-Arrhythmic Drug which predominantly blocks potassium channels is :
- (1) Amiodarone
 - (2) Disopyramide
 - (3) Mexiletine
 - (4) Procainamide
21. 10 Year patency rates for LIMA graft to LAD are :
- (1) 30%
 - (2) 60%
 - (3) 90%
 - (4) 99%

22. Patients with Triple Vessel Disease with mild symptoms have to be operated for CABG despite mild symptoms except in following conditions :
- (1) There is Left Main Equivalent Disease
 - (2) There is Significant Left Ventricular Dysfunction
 - (3) Syncope
 - (4) Left Main Stenosis
23. Urgent Revascularization is required in a patient presenting with angina if there is :
- (1) Significant LV Dysfunction
 - (2) Severe Triple Vessel Disease
 - (3) Left Main Coronary Artery Disease
 - (4) All of the above
24. Which of the following is **not** a good indicator of myocardial viability ?
- (1) Dobutamine Stress Echocardiography
 - (2) Thallium Scintigraphy
 - (3) Positron Emission Tomography
 - (4) Exercise Tolerance Test
25. Peri-operative MI rates after CABG surgery, as per CASS report is :
- (1) 5% (2) 10% (3) 2.5% (4) 1%
26. Which of the following valves need the maximum anticoagulation ?
- (1) Bileaflet Mechanical Valves
 - (2) Tilting Disc Mechanical Valves
 - (3) Tissue Valves
 - (4) Ball Valves
27. Which one of the following is **not** an obstructive lesion ?
- (1) Aortic Stenosis
 - (2) Mitral Regurgitation
 - (3) Pulm. Stenosis
 - (4) Coarctation of Aorta

28. Mitral Stenosis would be considered to be severe if the mean trans-valvular pressure gradient is more than :
- (1) 5 mm Hg (2) 10 mm Hg (3) 15 mm Hg (4) 20 mm Hg
29. The Ross Procedure involves replacement of aortic valve with :
- (1) Homograft (2) Autograft (3) Xenograft (4) Allograft
30. Post MI Ventricular Septal Rupture is mostly noted at the :
- (1) Inferior Wall (2) Anterior Wall
(3) Lateral Wall (4) Interior Lateral Wall
31. Which of the following is **not** an indication for Cardiac Transplantation ?
- (1) Heart Failure
(2) Cardiomyopathy
(3) Congenital Heart Disease
(4) Acute Myocardial Infarction with Cardiogenic Shock
32. Which of the following conditions would require Pulmonary Banding Procedure ?
- (1) Single Ventricle
(2) Tetralogy of Fallot
(3) Double Outlet Right Ventricle with VSD with PS
(4) Tricuspid Atresia with VSD with PS
33. Senning Operation is indicated for which condition ?
- (1) Tetralogy of Fallot
(2) Double Outlet Right Ventricle
(3) Single Ventricle
(4) Transposition of Great Arteries

34. Anastomosis between Left Subclavian Artery and Left Pulmonary Artery using PTFE Graft is known as :
- (1) Classic Blalock-Taussig Shunt
 - (2) Modified Blalock-Taussig Shunt
 - (3) Pott's Shunt
 - (4) Waterston Shunt
35. Which of the following is **not** a common cause for Mitral Regurgitation ?
- (1) Marfan Syndrome
 - (2) Carcinoid Syndrome
 - (3) Cardiomyopathy
 - (4) Infective Endocarditis
36. Elderly patients above 65 years of age should exercise with an intensity to achieve _____ of target heart rate.
- (1) 75-85%
 - (2) 65-75%
 - (3) 50-75%
 - (4) >85%
37. Which of the following is **not** the indication for surgery in case of Infective Endocarditis ?
- (1) Refractory Heart Failure
 - (2) Aortic Root Abscess
 - (3) Large Vegetation
 - (4) Valve Dysfunction with Persistent Infection
38. All of the following are acyanotic congenital heart diseases except ?
- (1) Atrial Septal Defect
 - (2) Ventricular Septal Defect
 - (3) PDA
 - (4) Tetralogy of Fallot
39. Fontan Operation is indicated in all of the following except :
- (1) When biventricular correction is not feasible
 - (2) Single Ventricle Physiology
 - (3) One of the ventricles is dysplastic
 - (4) Pulmonary Vascular Resistance is high

40. Total Intra-Cardiac Repair of Fallot's Tetralogy cannot be done if there is :
- (1) Severe Infundibular Stenosis
 - (2) Absent Pulmonary Valve
 - (3) Hypoplastic Pulmonary Arteries
 - (4) Complete Heart Block
41. Which of the following would be suitable conditions for a bioprosthetic valve ?
- (1) Elderly Patient with Atrial Fibrillation
 - (2) Early Degeneration of Metallic Valve
 - (3) Young Female Desiring for Pregnancy
 - (4) Tricuspid Valve Replacement
42. Incidence of which complication is significantly higher with CABG surgery in comparison to coronary angioplasty ?
- (1) Stroke
 - (2) Arrhythmias
 - (3) Need for Repeat Revascularization
 - (4) Left Ventricular Dysfunction
43. Which artery is **not** used for CABG surgery as a conduit ?
- | | |
|----------------------------|-------------------------|
| (1) Right Internal Mammary | (2) Gastro-Epiploic |
| (3) Superior Mesenteric | (4) Inferior Epigastric |
44. Cardioplegia solution does **not** contain which of the following constituents ?
- | | |
|----------------|-------------------------|
| (1) Aspartate | (2) Adenosine |
| (3) Adrenaline | (4) Dimethyl Sulphoxide |
45. Differential Cyanosis is present in which of the following conditions ?
- (1) TGA with PDA with Reversal of Shunt
 - (2) PDA with Reversal of Shunt
 - (3) VSD with Reversal of Shunt
 - (4) Single Ventricle

46. Acute toxicity due to amiodarone is seen on :
(1) Lungs (2) GIT (3) Skin (4) Brain
47. Half life of amiodarone is ?
(1) 9 - 10 hrs (2) 9 - 10 days (3) 30 - 106 days (4) 2 - 3 weeks
48. Drug used for acute termination of Atrial Fibrillation ?
(1) Ibutilide (2) Bletytium (3) Amiodarone (4) None
49. Class - IV drugs are :
(1) Beta Blockers (2) Na Channel Blockers
(3) Ca Channel Blockers (4) None
50. Verapamil Supresses electrical activity in the :
(1) Sinus Node (2) AV Node (3) Both (1) and (2) (4) None
51. Half life of digoxin :
(1) 2 weeks (2) 2 days (3) 2 hrs (4) None
52. Symptoms of digitoxicity are :
(1) Nausea, Vomiting, Diarrhoea (2) Visual Disturbance
(3) Significant Arrhythmic (4) All
53. Which of the following drugs has negative isotropic effect :
(1) Verapamil (2) Beta Blockers (3) Diltiazem (4) All
54. Adenosine has a half life of :
(1) 1 hr - 6 hrs (2) 1 day - 6 days (3) 1 min - 6 min (4) 1 sec - 6 sec

55. Which is true regarding defibrillation ?
- (1) Solid gel electrodes (adhesive) can cause high risk of burns
 - (2) Wet gel electrode can cause high risk of burns
 - (3) (1) and (2)
 - (4) Solid gel electrodes conduct electricity more even than wet gel electrodes
56. Which of the following is **not** a duct dependent Pulm. Blood. Flow ?
- (1) Critical Aortic Stenosis
 - (2) Pulm Atresia
 - (3) Ebstein's Anomaly
 - (4) Critical Pulm. Stenosis
57. Prolonged prostaglandism infusion causes all of the following side effects **except** :
- (1) Apnoea
 - (2) Hypertension
 - (3) Hypotension
 - (4) Fever
58. Cyanotic Spells are caused by all **except** :
- (1) Decreased pulm. blood flow
 - (2) Increased right to left shunt
 - (3) Decreased right to left shunt
 - (4) Fall in SVR
59. ASD is of _____ types.
- (1) 1
 - (2) 2
 - (3) 3
 - (4) 4
60. Devices that can interfere with pacemakers are :
- (1) MRI
 - (2) Radiation therapy
 - (3) Arc welding
 - (4) All the above
61. Which of the following statement is correct ?
- (1) Superior Vena-cava has a Valve
 - (2) Inferior Vena-cava has a Valve
 - (3) Coronary Sinus has a Valve
 - (4) Smooth part of the Right Atrium is derived from Sinus Venosus

62. Which of the following statement is **incorrect** ?
- (1) Great Cardiac Vein drains in RA
 - (2) Small Cardiac Vein drains in RA
 - (3) Anterior Cardiac Vein drains in RV
 - (4) Thobesian Vein drains in RV
63. Which of the following statement is **incorrect** ?
- (1) SA node is located at junction of SVC and RA
 - (2) AV node is located at the angle of kochs
 - (3) SA node is supplied by LAD
 - (4) RBB is supplied by LAD
64. In the radiological examination of the heart :
- (1) LV enlargement on PA view - Shows shift of long axis downwards and outwards
 - (2) RV enlargement on PA view - Shows shift of long axis downwards and outwards
 - (3) RA enlargement causes straightening of left heart border
 - (4) Right Pulm. artery runs horizontally to the right within mediastinum and is not seen on the frontal view
65. Which is false regarding sotalol ?
- | | |
|-----------------------|--------------------------------|
| (1) Used in VT | (2) Used in atrial arrhythmias |
| (3) Arrhythmogenic RV | (4) Complete heart block |
66. All of the following are digoxin properties **except** :
- | | |
|------------------------------------|-------------------------------------|
| (1) Excreted by kidney | (2) Increase para sympathetic tone |
| (3) Decrease para sympathetic tone | (4) Increase intra cellular calcium |
67. KERLEY B LINES :
- (1) Seen in Pulm. Oedema
 - (2) Identified in upper positions of lungs
 - (3) Short Transverse Lines
 - (4) Thickened Interlobular Septa

68. Amiodarone causes all except :

- (1) Pulm. Toxicity
- (2) Photo Sensitivity
- (3) Tachycardia
- (4) Hyperthyroidism

69. Development of Heart :

- (1) SVC from light common cardinal vein
- (2) SVC is from left common cardinal vein
- (3) IVC is from right viteline vein
- (4) Coronary sinus is from left horn of sinus venosus

70. Atrial Systole :

- (1) Begins with P wave of the ECG
- (2) Coincides with QRS
- (3) The atrio-ventricular valves are closed
- (4) The semi lunar valves are opened

71. Indication for ICD is :

- (1) VF/VT
- (2) SVT
- (3) Atrial Fibrillation
- (4) All of the above

72. In permanent pacemaker implantation, lead is placed in :

- (1) Right Atrium
- (2) Right Ventricle
- (3) Both of the above
- (4) None

73. Magnesium is contraindicated in patients with :

- (1) Magnesium levels > 5
- (2) Renal failure
- (3) Bradycardia
- (4) All of the above

74. Adenosine is used in patients with :

- (1) SVT
- (2) VT
- (3) Complete Heart Block
- (4) All

75. Trepopnea means :

- (1) Dyspnoea in up right position
- (2) Dyspnoea in supine position
- (3) Dyspnoea in lateral position
- (4) Dyspnoea during sleep

76. Moderation bend is present in :

- (1) Right Atrium
- (2) Left Atrium
- (3) Right Ventricle
- (4) Left Ventricle

77. Narrow Pulse pressure is seen in all conditions **except** :

- (1) Heart Failure
- (2) Complete Heart Block
- (3) Severe Aortic Stenosis
- (4) DKA

78. RV cavity obstruction by an abnormal muscle bundle is called as :

- (1) Valvular PS
- (2) Supravalvular PS
- (3) Double chambered RV
- (4) Sub valvular PS

79. Absent "a" waves of JVP seen in :

- (1) CHB
- (2) AF
- (3) VT
- (4) Acute PE

80. Shape of the Left Ventricle :

- (1) Triangular
- (2) Quadrangular
- (3) Crescent shape
- (4) Bullet shape

89. Beta Blocker with Vasodilator action :

- | | |
|----------------|-----------------|
| (1) Atenolol | (2) Carvedilol |
| (3) Metoprolol | (4) Propranolol |

90. Beta Blockers are contraindicated in patients with all except :

- | | |
|------------------------|-----------------------------------|
| (1) PR interval > 0.24 | (2) Severe Bronchospasm |
| (3) Prinzmetal angina | (4) Supra Ventricular Tachycardia |

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