# POST GRADUATE DIPLOMA IN CLINICAL CARDIOLOGY (PGDCC)

## Term-End Examination

## June, 2009

00392

## 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 60 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. Incidence of ASD among all congenital heart diseases is :
(1) 5-10 percent (2) 15-20 percent (3) 1-2 percent (4) 10-15 percent

2. Murmur in ASD is because of flow across :
(1) Atrial level shunt (2) Pulmonary valve
(3) Mitral valve (4) Aortic valve

3. Congenital Pulmonary Stenosis is ***not*** associated with :
(1) Noonan Syndrome (2) Congenital Rubella Syndrome
(3) William Syndrome (4) Turner's Syndrome

4. Following are usual clinical features of Tetralogy of Fallot except :
(1) Ejection Systolic Murmur (2) Pan Systolic Murmur
(3) Single Second Sound (4) Cyanosis

5. The most common cyanotic congenital heart disease is :
(1) Complete Transposition of Great Arteries
(2) Tetralogy of Fallot
(3) Pulmonary Atresia with intact ventricular septum
(4) Tricuspid Atresia

6. Commonest chromosomal anomaly that is associated with heart disease is :
(1) Trisomy 21 (2) Trisomy 13 (3) Trisomy 18 (4) Trisomy 23

7. Commonest congenital heart disease seen in Adult is :
(1) Coarctation of Aorta (2) Bicuspid Aortic Valve
(3) Tetralogy of Fallot with mild PS (4) Pulmonary Stenosis

8. Hypoplastic left-heart-syndrome may be a cause of heart failure is the new born and may he grouped under the following physiological category :
(1) Duct Dependent Systemic Blood Flow
(2) Duct Dependent Pulmonary Blood Flow
(3) Obstruction of Pulmonary Venous Return
(4) Myocardial Dysfunction

9. Treatment of cyanotic spell may include the following except :
(1) Morphine (2) Propranolol
(3) Phenylepherine (4) Isoproterenol

10. Ductus Arteriosus in normal full term infant normally fully closes after birth within the following duration :
(1) 2 - 8 weeks (2) 16 - 24 weeks (3) 1 year (4) 3 years

11. Repair of Tetralogy of fallot includes following except :
(1) Repair of tricuspid valve (2) Enlargement of RV outflow tract
(3) RV outflow resection (4) Closure of VSD

12. Which one of cogenital septel defects have a tendency to close spontaneously ?
(1) Fossa ovalis ASD (2) Primum ASD
(3) Sinus venosus ASD (4) Inlet VSD

13. Following are expected potential problems after surgical VSD closure except :
(1) Residual VSD (2) Residual Pulmonary Hypertension
(3) Heart Block (4) Tricuspid stenosis

14. In Vaughan Williams classification of antiarrhythmic drugs, class II drugs block :
(1) Fast sodium channel (2) Potassium channel
(3) Bete - adrenergic receptors (4) Calcium channel

15. Following drug do not induce synthesis of larger amounts of cytochrome P 450 :
(1) Rifampin (2) Phenobarbital
(3) Phenytoin (4) Erythromycin

16. Of all the Beta Blockers, following is the most lipid soluble :
(1) Atenolol (2) Esmolol (3) Labetalol (4) Propranolol

17. Adenosine is generally not responsible for the following side effects :
(1) Flushing (2) Dysproea (3) Chest Pressure (4) Loose Motion

18. Ibutilide - an antiarrhythmic drug is used for :
(1) Management of Acute episodes of Atrial Flutter and Fibrillation
(2) Managing Acute episodes of Atrial Flutter and Fibrillation and their prevention
(3) Managing Acute episodes of 'Torsade-de-pointes'
(4) 2nd drug of choice in Polymorphic Ventricular Tachycardia

19. Amiodarone when administered intravenously (150 mgm over 10 minutes, then 1 mgm / minute infusion) has, the following effect except :
(1) Decreases heart rate
(2) Increases systemic vascular resistance
(3) Decreases left ventricular contractile force
(4) Decreases left ventricular dP/dt

20. Elimination half life of Adenosine is :
(1) 1 - 6 seconds (2) 10 - 16 seconds
(3) 20 - 26 seconds (4) 30 - 36 seconds

21. Following are manifestations of Magnesium toxicity except :
(1) Decreased P-R interval (2) Increased ORS duration
(3) Loss of deep tendon reflexes (4) Respiratory paralysis

22. To avoid disturbance in Pacemaker functions from the cellular phones, cellular phones should be kept away from the Pacemaker implanted site with minimum distance of :
(1) Six inches (2) Twelve inches
(3) Eighteen inches (4) Twenty four inches

23. Currently the most frequent indication for pacing is :
(1) Sinus Node dysfunction
(2) A-V Node dysfunction
(3) Pacing for Tachyarrhythmias
(4) Pacing for management of congestive cardiac failure

24. Pulmonary Artery Bending is done to reduce pulmonary flow. Properly bended, pulmonary artery pressure should fall to less than :
(1) 20 percent of aortic pressure (2) 30 percent of aortic pressure
(3) 40 percent of aortic pressure (4) 50 percent of aortic pressure

25. The commonest variety of Total Anomalous Pulmonary Venous Connection is :
(1) Supracardiac type (2) Cardiac type
(3) Infracardiac type (4) Mixed type

26. Following are features of ideal oxygenator except :
(1) Maximize gas transfer (2) Minimize blood trauma
(3) maximize priming volume (4) Good heat transfer efficiency

27. Protamine sulphate is given to neutralize the effect of heparin for each milligram of heparin administered, dose of protamine sulphate is :
(1) 1 to 1.5 mgm (2) 2 to 2.5 mgm (3) 3 to 3.5 mgm (4) 4 to 4.5 mgm

28. At normal temperature, if there is circulatory arrest for three minutes, brain suffers hypoxic damage. If the temperature is brought down to 18°C, this period generally extends upto :
(1) 10 minutes (2) 30 minutes (3) 45 minutes (4) 60 minutes

29. Haemo Filtration during open heart surgery helps in :
(1) Saving blood (2) Removing Excess fluid
(3) Preservation of Myocardium (4) Prevention of Febrile Reactions

30. Intra Aortic Balloon Pump helps in improving cardiac output by about :
(1) 10 percent (2) 20 percent (3) 30 percent (4) 40 percent

31. Expected percentage of patent saphenous vein grafts at end of 10 years is :
(1) 50 percent (2) 60 percent (3) 70 percent (4) 80 percent

32. Left main equivalent disease is considered to be involvement of following arteries :
(1) Proximal LAD + Proximal RCA
(2) Proximal LAD + Proximal circumflex
(3) Proximal LAD + Proximal diagonal
(4) Proximal circumflex + Proximal RCA

33. Commonest rhythm abnormality after CABG in post-operative period is :
(1) Ventricular Tachycardia (2) Atrial Fibrillation
(3) Atrial Tachycardia (4) Atrial Flutter

34. The incidence of sternal break down after CABG are higher if the patient is given following grafts :
(1) Five RSV grafts (2) LIMA + four RSV grafts
(3) LIMA + RIMA (4) LIMA + Radial artery graft + three RSV grafts

35. Expected mortality after redo CABG is :
(1) 3 - 6 percent (2) 6 - 10 percent (3) 10 - 15 percent (4) 15 - 20 percent

36. In mitral stenosis with small left ventricle following valve should be avoided :
(1) Starr-Edward Silastie Ball Valve (2) St. Jude Medical Valve
(3) Medtronic-Hall Valve (4) Carbomedics Valve

37. In our country with hot and humid climate, anticoagulation recommended after placing Tilting Disc Mechanical Valve at Aortic position is as follows :
(1) Standard Anticoagulation (IWR 3-3.5)
(2) Low Anticoagulation (IWR 2-2.5)
(3) Anticoagulation not indicated
(4) Anticoagulation indicated if patient has associated Atrial Fibrillation

38. Mitral Stenosis is classified as severe if Valve Area is :
(1) $< 1.0\ cm^2$ (2) $< 1.5\ cm^2$ (3) $< 1.75\ cm^2$ (4) $< 2.0\ cm^2$

39. LV ejection fraction may be normal on 2 D Echo even when LV dysfunction has set in, in following condition :
(1) Chronic Aortic Regurgitation
(2) Chronic Mitral Regurgitation
(3) Mitral stenosis with Tricuspid Regurgitation
(4) ASD

40. In Chromic Mitral Regurgitation, it is better to do Mitral Valve Repair than Mitral Valve Replacement. Person who perfected the technique of Mitral Valve Repair is :

(1) Edward
(2) Alain Carpentier
(3) Albert Starr
(4) Michael-DeBakey

41. William's syndrome is associated with :

(1) Congenital discrete subvalvular aortic stenosis
(2) Tunnel Subvalvular Aortic stenosis
(3) Unicommissural congenital aortic stenosis
(4) Supravalvar Aortic Stenosis

42. All are class I indications (American Heart Association and American College of Cardiology) for Surgery of Aortic Stenosis except :

(1) Symptomatic patient with severe AS
(2) Asymptomatic patient with severe AS undergoing CABG
(3) Asymptomatic patient with moderate AS undergoing CABG
(4) Asymptomatic patient with severe AS with valve area < 0.6

43. Following are significant causes of Acute Aortic Regurgitation except :

(1) Dissection of Aortic Root
(2) Acute Rheumatic Carditis
(3) Endocarditis of Native Valve
(4) Endocarditis of Prosthetic Valve

44. Commonest cause of Acquired Tricuspid Stenosis is :

(1) Chromic Rheumatic Carditis
(2) Right Atrial Tumour
(3) Carcinoid Syndrome
(4) Right Ventricular Endomyo Cardial Fibrosis

45. Pulmonary Stenosis is considered to be severe if peak pressure gradient is more than :

(1) 50 mm Hg (2) 60 mm Hg (3) 70 mm Hg (4) 80 mm Hg

46. Commonest site for left ventricular Aneurysm is :

(1) Anterolateral wall
(2) Posterolateral wall
(3) Leteral wall and septum
(4) Apex

47. Following statements about False Left Ventricular Aneurysm are true except :

(1) It develops after acute rupture of infarct
(2) It occurs more often on the anterolateral surface
(3) The mouth is usually narrow
(4) Resection is always recommended

48. Bental Procedure is a technique used to repair aortic aneurysm involving :
(1) Ascending Aorta and Aortic Valve
(2) Descending Thoracic Aorta
(3) Descending Thoracic Aorta and Arch
(4) Ascending Aorta below the Innominate Artery

49. Mortality in Acute Dissection of different parts of Aorta as reported in the International Registry of Aortic Dissection is :
(1) 16 percent (2) 26 percent (3) 36 percent (4) 46 percent

50. The commonest cause of Constrictive Pericarditis in India is :
(1) Tuberculosis (2) Viral (3) Uraemic (4) Neoplastic

51. METs required for walking, sitting and other ordinary activities are :
(1) 2 METS (2) 3 METS (3) 4 METS (4) 5 METS

52. Haemodynamic circumstances may injure the endothelium, initiating Non Bacterial Thrombotic Endocarditis except :
(1) High velocity jet striking endothelium
(2) Flow from high to a low pressure chamber
(3) Flow across a narrow orifice at high velocity
(4) Flow across a large orifice at slow velocity

53. Following suggest constrictive Pericarditis except :
(1) Pericardial Knock
(2) Pulmonary Artery Systolic Pressure > 60 mmHg
(3) 'Square root' sign on haeomodynamic monitoring
(4) Septal 'bounce' on Echo

54. Following statements about VSD are true except :
(1) Shunt in VSD is generally Left to Right
(2) Magnitude of the shunt is determined by level of pulmonary vascular resistance
(3) RV starts contracting before LV
(4) Towards the end of systole, declining LV pressure becomes lower than the aortic pressure with occurrence of $A_2$

55. Following statements about Eisenmenger Syndrome are true execpt :
(1) Eisenmenger Syndrome develops as a consequence of large preexisting right to left shunt
(2) Exercise tolerance is proportional to the degree of hypoxemia or cyanosis
(3) ECG shows features of right atrial overload and evidence of right ventricular hypertrophy
(4) Noncardic surgery should be performed only when absolutely necessary because of high associated mortality

56. Arrhythmics best treated by electrical cardioversion are :
(1) Arrhythmics because of Abnormal Automacity
(2) Arrhythmics because of Triggered Activity
(3) Arrhythmics because of Reentry
(4) Arrhythmics because of Digitalis Toxicity

57. Following are radiological features of ASD with large left to right shunt except :
(1) Cardiomegaly
(2) Dileted Central Pulmonary Arteries
(3) Pulmonary Plethora
(4) Large Aortic Knuckle

58. Following statements about Electrical Cardioverter cum Defibrillator are true except :
(1) A regulated dose of electricity can terminate arrhythmia
(2) There are more burns with wet-gel electrodes as compared to solid-gel electrodes
(3) Shock related myocardial damage increases directly with increase in applied energy
(4) Synchronized shock is used for all cardioversions except for ventricular flutter or fibrillation

59. In the setting of WPW Syndrome following statements are true except :
(1) Verapamil prolongs conduction time and refractoriness in the AV node
(2) Procaniamide prolongs refractoriness of the accessory pathway
(3) Digitalis prolongs conduction time in the AV node but may shorten refactoriness of the accessory pathway
(4) Amiodorone shortens effective refractory period of all cardiac tissues

60. Following statement about Sotalol are true except :
(1) e-Isomer is responsible for usually all the beta blocking activity
(2) Effective in treating ventricular arrhythmia
(3) Prevents recurrence of a wide variety of supra ventricular tachyarrhythmias
(4) Differs from Amiodarone because it does not cause ProArrhythmia

- o O o -