

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

Term-End Examination

00249

December, 2012

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

3. The most common Acyanotic congenital heart disease is :
 - (1) BICUSPID AORTIC VALVE
 - (2) OS ASD
 - (3) PDA
 - (4) VSD

4. 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

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

6. 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

7. INTRA CARDIAC 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

8. Which one of congenital septal defects have a tendency to close spontaneously ?
 - (1) Inlet VSD
 - (2) Primum ASD
 - (3) Sinus venosus ASD
 - (4) Fossaovalis ASD

9. In Vaughan Williams classification of antiarrhythmic drugs, class III drugs block All except :
 - (1) Fast sodium channel
 - (2) Potassium channel
 - (3) Alpha - adrenergic receptors
 - (4) Calcium channel

10. All of the following drugs induce synthesis of larger amount of cytochrome P 450 except :
 - (1) Rifampin
 - (2) Phenobarbital
 - (3) Phenytoin
 - (4) Erythromycin

11. Of all the Beta Blockers, following is the most lipid soluble :
(1) Atenolol (2) Esmolol (3) Labetalol (4) Propranolol
12. Adenosine is generally not responsible for the following side effects :
(1) Flushing (2) Dysproea (3) Chest Pressure (4) Loose Motion
13. Elimination half life of Adenosine is :
(1) 1-6 seconds (2) 10-16 seconds (3) 20-26 seconds (4) 30-36 seconds
14. Following is not a manifestations of Magnesium toxicity :
(1) Decreased P-R interval (2) Increased ORS duration
(3) Loss of deep tendon reflexes (4) Respiratory paralysis
15. 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
16. Pulmonary Artery Banding is done to reduce pulmonary flow. Properly banded, pulmonary artery pressure should fall to less than :
(1) 20 percent of aortic pressure (2) 50 percent of aortic pressure
(3) 40 percent of aortic pressure (4) 30 percent of aortic pressure
17. The commonest variety of Total Anomalous Pulmonary Venous Connection is :
(1) Supracardiac type (2) Cardiac type
(3) Infracardiac type (4) Mixed type
18. 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
19. Intra Aortic Balloon Pump helps in improving cardiac output by about :
(1) 10 percent (2) 20 percent (3) 30 percent (4) 40 percent
20. In our country with hot and humid climate, anticoagulation recommended after placing Tilting Disc Mechanical Valve at Mitral position is as follows :
(1) Standard Anticoagulation (IWR 2.5-3.5)
(2) Low Anticoagulation (IWR 2-2.5)
(3) Anticoagulation not indicated
(4) Anticoagulation indicated if patient has associated Atrial Fibrillation

21. Mitral Stenosis is classified as severe if Valve Area is :
- (1) $< 1.0 \text{ cm}^2$ (2) $< 1.5 \text{ cm}^2$ (3) $< 1.75 \text{ cm}^2$ (4) $< 2.0 \text{ cm}^2$
22. LV ejection fraction may be normal on 2D 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
23. 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) Abnormal response to exercise (HYPOTENSION)
24. Most Common cause of Acquired Tricuspid Stenosis is :
- (1) Chronic Rheumatic Carditis
 (2) Right Atrial Tumour
 (3) Carcinoid Syndrome
 (4) Right Ventricular Endomyo Cardial Fibrosis
25. 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) 40 mm Hg
26. 85% of left ventricular Aneurysm occurs in :
- (1) Anterolateral wall (2) Posterolateral wall
 (3) Lateral wall and septum (4) Apex
27. Anatomically, the commonest Atrial Septal Defect is :
- (1) Ostium Secundum
 (2) Partial Atrioventricular Canal Defect
 (3) Sinus Venosus
 (4) Coronary Sinus
28. In large ASD, in left to right shunt, diastolic flow murmur can be heard at :
- (1) Tricuspid valve (2) Mitral valve
 (3) Pulmonary valve (4) At the site of communication

29. Following statements about Ventricular Septal Defect is not true :
- (1) VSD accounts for 5-10 percent of all CHDs.
 - (2) Ventricular septum may be divided into a small Membranous portion and a large muscular portion.
 - (3) The muscular septum has three components, the inlet, the trabecular and the outlet.
 - (4) The Trabecular septum is further divided into central, marginal and apical portions.
30. Infants with large Ventricular Septal Defects, large left to right shunt and PAH may have following findings except :
- (1) Infant may be restless, irritable and underweight.
 - (2) Both the right and left ventricular systolic impulses are hyperdynamic to palpation.
 - (3) Second heart sound is wide split with a loud pulmonary component.
 - (4) Presence of mid diastolic rumble of grade 2 to 3 intensity.
31. Following statements about Patent Ductus Arteriosus is not true :
- (1) It courses from origin of the left pulmonary artery below to the upper aspect of the aortic arch above.
 - (2) Functional closure of the ducts occurs within 2-3 days after birth.
 - (3) Exogenous PGE has been used to keep the ductus open postnatal.
 - (4) Indomethacin has been used to close the ductus, in whom persistent patency is disadvantageous.
32. With Congenital Bicuspid Aortic valve disease the most common associated anomaly is :
- (1) ASD (2) VSD (3) PDA (4) Coarctation of Aorta
33. Following statements about Tetralogy of Fallot are not true :
- (1) There is invariably a large malalignment VSD.
 - (2) The right ventricular infundibulum lies posterior to the position of VSD.
 - (3) Pulmonary trunk is thin walled and its lumen is more narrow than normal.
 - (4) In all cases of tetralogy with significant pulmonary obstruction, there may be collateral branches to the lungs.
34. Following is not the mechanism causing cyanotic spells in TOF :
- (1) Infundibular spasm.
 - (2) Increased right to left shunt.
 - (3) Activation of mechanoreceptors in RV.
 - (4) Increase in systematic vascular resistance.
35. Following congenital cardiac defect is not likely to produce cyanotic spell :
- (1) Tetralogy of Fallot (2) coarctation of aorta
(3) Tricuspid Atresia with PS (4) DORV with VSD and PS

36. Differential cyanosis means right to left shunt at the level of :
- (1) Atrium (2) Ventricle
 (3) Ascending Aorta (4) PDA
37. Triad of cyanosis, cardiomegaly and ischaemic lung fields is found in following except :
- (1) DROV
 (2) Severe Pulmonary stenosis with failing heart
 (3) Single ventricle with Large VSD
 (4) LTGA
38. Histological changes in chronic Pulmonary Arterial Hypertension in the smaller pulmonary arteries and arterioles. Heath and Edward have classified them into :
- (1) Grade I to IV (2) Grade I to V (3) Grade I to VI (4) A to C
39. Following septal defects are likely to close spontaneously :
- (1) ASD Primum (2) Sinus venosus ASD
 (3) Muscular VSD (4) Inlet VSD
40. Following is not an earliest important causes of heart failure in full term newborns :
- (1) VSD (2) Coarctation of Aorta
 (3) Hypoplastic left heart (4) Myocarditis
41. Following is not a feature of morphological Right Ventricle :
- (1) Trabeculated Apex.
 (2) Higher (basal) attachment of STL.
 (3) Septal Attachment of the Tricuspid valve.
 (4) Moderator band.
42. Following is not a feature of D-transposition of the great arteries :
- (1) Discordant VA connection.
 (2) Concordance of AV connection.
 (3) Situs solitus of the Atria in majority of cases.
 (4) Aorta lies left and posterior to the pulmonary arterial origin.
43. In Tachycardia because of AV nodal reentry, rate of ventricular complexes is generally :
- (1) 100 - 150 (2) 150 - 250 (3) 250 - 350 (4) 350 - 450

44. Following statements about lignocaine are true except :
- (1) Hepatic metabolism depends on hepatic blood flow.
 - (2) Used only Parenterally.
 - (3) Prolonged infusion can reduce its clearance.
 - (4) It's elimination half life averages 4 to 6 hours in normal subjects.
45. Metabolism of Mexiletine is increased by following drugs except :
- (1) Phenytoin
 - (2) chloramphenicol
 - (3) Rifampicin
 - (4) Phenobarbital
46. Following drug depress spontaneous discharge of the sinus node except :
- (1) Verapamil
 - (2) Propranolol
 - (3) Disopyramide
 - (4) Amiodarone
47. Of the following Betablockers, the most lipid soluble drug is :
- (1) Atenolol
 - (2) Esmolol
 - (3) Labetolol
 - (4) Propranolol
48. For management of arrhythmia because of digitalis toxicity, following measures are usually preferred except :
- (1) Cardioversion
 - (2) Phenytoin
 - (3) Digoxin Specific Antibody
 - (4) Correction of hypokalemia
49. The most frequent indication for pacing is :
- (1) Sinus Node Disease
 - (2) AV node disease
 - (3) Tachyarrhythmia
 - (4) Heart failure
50. Following doctor is credited with introduction of first prosthetic valve :
- (1) Dr. Albert Starr
 - (2) Dr. Michael De-Bakey
 - (3) Dr. Denton Cooley
 - (4) Dr. Christian Barnard
51. Following type of oxygenator is commonly used during extracorporeal circulation :
- (1) Film
 - (2) Disc
 - (3) Bubble
 - (4) Membrane
52. When the patient is cooled to 30°C; patient generally can withstand circulatory arrest without suffering brain damage for :
- (1) 10 minutes
 - (2) 15 minutes
 - (3) 20 minutes
 - (4) 25 minutes
53. Commonest arrhythmia in the early post operative period after CADs is :
- (1) Atrial Fibrillation
 - (2) Ventricular Fibrillation
 - (3) Ventricular Ectopics
 - (4) Idioventricular rhythm

54. Of the following prosthetic valves; valve with lowest effective orifice area is :
- (1) Starr - Edward (2) St. Jude (3) Medtronic (4) Carbornedics
55. Patient is said to be suffering from severe mitral stenosis, if the mean pressure gradient across mitral valve is :
- (1) > 5 mm (2) > 10 mm (3) > 15 mm (4) > 20 mm
56. The most common cause for combined mitral stenosis and regurgitation is :
- (1) Rheumatic (2) Congenital (3) Degenerative (4) Atrial Myxoma
57. Following is the Echo Criteria of severe tricuspid regurgitaion except :
- (1) Maximum jet area > 40% of RA.
 (2) Maximum jet area > 20 - 40% of RA.
 (3) Regurgitation of IVC.
 (4) Regurgitation to Hepatic veins.
58. Annomalous connection of one or more of the right sided pulmonary veins is more common in following ASD :
- (1) Defect at Fossa Ovalis.
 (2) Partial Atrioventricular canal defect.
 (3) Sinus Venosus Defect.
 (4) Coronary Sinus Defect.
59. Following statements about VSD are true except :
- (1) A large defect offers no resistance to flow.
 (2) The relative resistance of two vascular beds governs the proportion of blood entering the two circulations.
 (3) At birth pulmonary vascular resistance is low and tends to increase over the first few weeks of life.
 (4) Full term infants born with a large VSD, clinical deterioration may occur at any time from about 3 to 12 weeks after birth.
60. An operation which involves closure of a large VSD and establishing RV to PA connection with external conduit goes by name of :
- (1) Fontan operation (2) Rastelli operation
 (3) Ross operation (4) Senning procedure
61. Shunt between descending aorta to left pulmonary artery is known as :
- (1) Blalock Taussig shunt (2) Potts shunt
 (3) Waterston shunt (4) Glen shunt

62. According to Vaughan William's classification, lignocaine is classified in the following class :
- (1) Class I A (2) Class I B (3) Class I C (4) Class III
63. In Vaughan William's classification, following drug is not classified as class III drug :
- (1) Sotalol (2) Amiodarone (3) Procainamide (4) Bretylium
64. Commonest Valvular lesion during acute Rheumatic Fever is :
- (1) aortic regurgitation (2) Mitral regurgitation
(3) Tricuspid regurgitaion (4) Mitral Stenosis
65. Combined MS and MR in Rheumatic Heart Disease patients are seen in :
- (1) 40% (2) 35% (3) 30% (4) 25%
66. Drug treatment of Hypertrophic cardiomyopathy includes all except :
- (1) Beta Blockers (2) Calcium Channel Blockers
(3) Amiodarone (4) Digoxin
67. AVR for Adults with sever As is indicated in all expect :
- (1) Mild symptoms (2) Severe comorbidity
(3) Exercise induced symptoms (4) Associated CABG
68. Severe calcific Aortic Stenosis is characterized by all except :
- (1) Pulsus Parvus (2) Grade IV systolic murmur with thrill
(3) S₂ may be single (4) Aortic Ejection Click
69. Clinical presentation of large pericarditis is :
- (1) Negative Kussmaul's sign
(2) Low pitched S₃
(3) Square root appearance of ventricular diastolic pressure trace
(4) AI in Majority of cases
70. Prosthetic valve endocarditis is labeled early when :
- (1) Symptoms being within 30 days of valve surgery.
(2) Symptom being with 60 days of valve surgery.
(3) Symptom being with 90 days of valve surgery.
(4) Symptom being with 120 days of valve surgery.
71. Carcinoid syndrome involves which valve primarily :
- (1) Mitral valve (2) Aortic valve
(3) Tricuspid valve (4) Pulmonary valve

72. Regarding Alcoholic cardiomyopathy one of following is true :
- (1) Patient presents with low output heart failure.
 - (2) Occurs due to prolonged alcohol intake for more than 10 years.
 - (3) Occurs due to alcohol toxicity.
 - (4) Prognosis is bad even if alcohol is stopped.
73. Mitral facies is seen in :
- (1) mitral stenosis and mitral regurgitation
 - (2) moderate mitral stenosis
 - (3) mild mitral stenosis
 - (4) severe chronic mitral stenosis
74. 'Nocturnal Angina' is classically described in which valvular lesion :
- (1) MR (2) AR (3) TR (4) PR
75. Keith - Wagner classification describes :
- (1) Grade of proteinuria in HTN Nephropathy
 - (2) Retinal changes in HTN patients
 - (3) Doppler signs in Reno vascular HTN patients
 - (4) Atherosclerotic changes in ascending aorta in hypertension patients
76. Following investigation is most specific to differentiate acute LVF from acute asthma in emergency setup :
- (1) Plasma BNP levels (2) Chest X - ray
 - (3) 2D ECHO (4) PFT
77. All are primary preventive trials except :
- (1) WOSCOPS (2) AFCPS/TEXCAPS
 - (3) HPS (4) 4 S
78. All are features of cardiogenic shock except :
- (1) Cold clammy peripheries
 - (2) Systolic BP less than 80 mmHg
 - (3) Cardiac index less than 1.8 L/mt/m²
 - (4) PCWP less than 18 mmHg
79. One of the following is a phosphodiesterase inhibitor :
- (1) Phenyephrine (2) Isoproteremol (3) Milrinone (4) Dopamine

80. All are true about posterior wall MI except :
- (1) Isolated Posterior Wall MI is rare
 - (2) Diagnosis can be missed if ECG is not properly analyzed
 - (3) RS ratio in V1 is ≥ 1
 - (4) ST elevation in V3 R-V4 R
81. All are true about Digoxin in Heart Failure except :
- (1) Useful in diastolic heart failure
 - (2) Not proved to decrease Mortality rate
 - (3) Decrease no. of hospitalization
 - (4) Improves quality of life
82. All are side effects of ACE inhibitors except :
- (1) Angio Edema
 - (2) Hyperkalaemia
 - (3) Bradycardia
 - (4) Unclassifiable
83. All are causes of secondary Hypertension except :
- (1) Addison's disease
 - (2) Cushing's syndrome
 - (3) Conn's syndrome
 - (4) Pheochromocytoma
84. Goal of BP in HTN with DM/CKD :
- (1) < 130/80
 - (2) < 120/90 mmHg
 - (3) < 140/80 mmHg
 - (4) < 130/90 mmHg
85. Paroxysmal nocturnal dyspnoea is a classical symptom of :
- (1) Acute left heart failure
 - (2) Uncontrolled hypertension
 - (3) Constrictive pericarditis
 - (4) Pulmonary thromboembolism
86. All are ECG features of pulmonary thromboembolism except :
- (1) LBBB
 - (2) S1, Q3, T3 pattern
 - (3) ST-T changes in V1-V3 and inferior leads
 - (4) Normal ECG
87. Lead V3 is positioned at :
- (1) Left sternal margin 4th intercostals space
 - (2) Midway between V2 to V4
 - (3) Left mid clavicular line fifth intercostal space
 - (4) Left anterior axillary line

88. About the U wave in ECG all are true except :
- (1) The amplitude is usually less than 0.1 mV
 - (2) Has the opposite polarity as the preceding T wave
 - (3) May be caused by the repolarization of the Purkinje fibres
 - (4) The U wave is usually the largest at the mid precordial leads
89. ECG changes due to hyperkalaemia all except :
- (1) Tall peaked T wave
 - (2) Long QT interval
 - (3) Bundle branch block pattern
 - (4) Decreased P wave amplitude and PR prolongation
90. Which of the following is a cyanotic heart disease :
- | | |
|-----------------------|------------------------|
| (1) PAPVC | (2) Pulmonary stenosis |
| (3) Tricuspid atresia | (4) ASD |
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