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MCC-005

POST GRADUATE DIPLOMA IN CLINICAL CARDIOLOGY (PGDCC)

Term-End Examination

December, 2015

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 Sheet.***

(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 Sheet.***

(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. Direct Anastomosis of end of subclavian artery to side of pulmonary artery is :
   (1) Modified BT shunt (2) BT shunt
   (3) Waterston shunt (4) Pott's shunt

2. St. Thomas solution is :
   (1) 20 mcq of potassium heated to 40° C
   (2) 20 mcq of potassium cooled to 40° C
   (3) Cardioplegic solution
   (4) (2) and (3) are correct

3. False about IABP is :
   (1) Used in cardiogenic shock post myocardial infarction
   (2) Safe to use when patient has aortic diameter > 5 cm
   (3) Also called diastolic augmentation
   (4) Tip of balloon should be placed below left subclavian artery

4. One of the following surgery is not approached through right thoracotomy :
   (1) Classical BT shunt (2) Modified BT shunt
   (3) Pott's shunt (4) Waterston shunt

5. Bileaflet valve is :
   (1) St. Jude valve (2) Starr Edwards
   (3) TTK Chitra valve (4) Medtronic Hall valve

6. Ross procedure is :
   (1) Replacing autograft for aortic valve is allograft for pulmonary valve
   (2) Replacing autograft for mitral valve and allograft for pulmonary valve
   (3) Replacing autograft for pulmonary valve and allograft for aortic valve
   (4) Replacing autograft for tricuspid valve and allograft for pulmonary valve

7. Effective orifice area is lowest for :
   (1) Single leaflet disc valve (2) Bileaflet valve
   (3) Starr Edward's valve (4) Native valve

8. Anti-coagulation for life is indicated in all except :
   (1) Chitra valve in mitral position with sinus rhythm
   (2) Perimount valve in aortic position with sinus rhythm
   (3) Chitra valve in aortic position with atrial fibrillation
   (4) Perimount valve in mitral position with atrial fibrillation

9. Effective orifice area of native aortic valve is :
   (1) 1.5 - 2 cm^2 (2) 2 - 3 sq. cm (3) 3 - 4 sq. cm (4) 4 - 5 sq. cm

10. Anti-coagulation for biological valve is indicated if patient has all except :
(1) Very large left atrium
(2) Severe LV dysfunction
(3) Complete heart block
(4) Hypercoagulable state

11. Cyanotic spells are common in the following age group :
(1) 2 months to 2 years
(2) 2 years to 4 years
(3) 4 to 6 years
(4) 6 to 8 years

12. False about stuck valve is :
(1) Causes sudden hemodynamic deterioration
(2) Clinically diagnosed by increased intensity of prosthetic sounds
(3) Diagnosis confirmed by echo cardiography
(4) May need valve replacement

13. Mitral stenosis is considered as mild when :
(1) Valve area is > 2 cm^2 with MPG > 10 mm of Hg
(2) Valve area is 1 - 2 cm^2 with MPG 6 - 9 mmHg
(3) Valve area is < 1 cm^2 with MPG < 5 mmHg
(4) Valve area is > 2 cm^2 with MPG < 5 mmHg

14. Class I, indication for PBMV is :
(1) Patient in NYHA Cl-III with severe MS with Pulmonary hypertension
(2) Patient in NYHA Cl-III with severe MS with minimal MR and no LA thrombus
(3) Patient in NYHA Cl-III with severe MS with Moderate MR and new onset AF
(4) Patient in NYHA Cl-III with severe calcific MS

15. MVR is indicated in :
(1) Pt with severe MS in NYHA Cl-IV who are not considered for BMV
(2) Pt with severe MS in NYHA Cl-II with pulmonary hypertension (Systolic Pressure 50 mmHg at rest)
(3) Pt with severe MS in NYHA Cl-I non-pliable calcified valve in absence of LA thrombus in NYHA Cl-I
(4) (1) and (2) are correct

16. Causes of acute mitral regurgitation include all except :
(1) Chordal rupture
(2) Infective endocarditis
(3) Acute myocardial infarction
(4) Degeneration

17. Mitral Valve Replacement is not indicated in :
(1) Symptomatic severe MR with normal LV Function and end systolic dimension of LV < 45 mm
(2) Asymptomatic severe MR with LV dysfunction
(3) Asymptomatic severe MR with normal LV function
(4) Acute severe MR post myocardial infarction

18. Williams syndrome is not associated with :
(1) Sub valvular aortic stenosis
(2) Supra valvular aortic stenosis
(3) Elfin facies
(4) Hypercalaemia

19. Heart murmur in ASD is done to all except :
(1) Increased flow through pulmonary valve
(2) Increased flow through tricuspid valve
(3) Gradient at atrial level
(4) Ejection systolic murmur at pulmonary area

20. All of the following are left to right shunts except :
(1) ASD (2) VSD
(3) Eisenmenger's Syndrome (4) PDA

21. Cl - I indications for AVR include all except :
(1) Asymptomatic severe AR with 50% EF and dilated LV
(2) Asymptomatic severe AR with 30% EF
(3) Symptomatic severe AR with 50% EF and dilated LV
(4) Symptomatic moderate AR with 60% stenosis of LMCA

22. Tricuspid stenosis is considered as moderate when the gradient across the valve is :
(1) < 1 mm (2) 1 - 3 mm (3) 3 - 5 mm (4) > 5 mm

23. Angiographic qualification of grade 2 tricuspid regurgitation shows :
(1) Partial right atrium
(2) Opacification of right atrium and venacava
(3) Minimal systolic jet, clears rapidly
(4) Opacification of whole of RA

24. True about functional TR is :
(1) Associated with normal annular circumference
(2) Associated with significant mitral disease
(3) Leaflets have anatomical abnormality
(4) Associated sometimes with tricuspid stenosis

25. Echo quantification of severe pulmonary stenosis shows :
(1) Valve area > 1.5 cm^2, peak pressure gradient > 25 mmHg
(2) Valve area > 1 cm^2, peak pressure gradient > 50 mmHg
(3) Valve area < 0.5 cm^2, peak pressure gradient < 50 mmHg
(4) Valve area < 0.5 cm^2, peak pressure gradient > 80 mmHg

26. Commonest location of ventricular aneurysm :
(1) Antero lateral (2) Inferior (3) Postero lateral (4) Lateral

27. All are indications for surgery in aortic aneurysm except :
(1) When diameter of ascending aorta > 5.5 mm
(2) When diameter of descending aorta > 6 mm
(3) When diameter of aorta < 4 cm in Marfan's syndrome
(4) Aortic valve replacement in bicuspid aortic valve when diameter of aorta is > 4 cm

28. Bental procedure is the surgery done for :
(1) Ventricular aneurysm (2) Abdominal aorta aneurysm
(3) Aortic Arch aneurysm (4) Ascending aortic aneurysm

29. In classification of acute aortic dissection debakey II includes :
(1) Ascending aorta extending to arch
(2) Descending aorta extending to abdominal aorta
(3) Descending aorta retrograde into arch
(4) Ascending aorta confined to ascending aorta

30. All are class I indications for surgery in native valve endocarditis except :
(1) Evidence of valve dysfunction and persistent infection after 7 - 10 days of appropriate anti-biotic treatment
(2) Acute AR with tachycardia and early closure of mitral valve
(3) Infection with gram −ve organism with evidence of valve dysfunction
(4) Heart failure unresponsive to medical treatment due to MR

31. Most common organism for early prosthetic valve endocarditis is :
(1) Staphylococcus epidermidis (2) Staphylococcus anerus
(3) Gram negative bacilli (4) Candida

32. Emergency surgery for prosthetic valve endocarditis is indicated when patient has :
(1) Unstable prosthesis
(2) Acute aortic regurgitation with mitral valve preclosure
(3) Aortic regurgitation with heart failure
(4) Valve obstruction

33. _____ percentage of patients with large VSD seen at one month of age may close spontaneously.
(1) 100% (2) 80% (3) 60% (4) 25%

34. VSD is considered as moderate when :
(1) It is > 5 cm in diameter (2) 50% of diameter of aorta
(3) < 1/3rd of diameter of aorta (4) Equal to diameter of aorta

35. Which one of the following is not an obstructive lesion ?
(1) Aortic Stenosis (2) Mitral Regurgitation
(3) Pulmonary Stenosis (4) Coarctation of Aorta

36. Which is not a feature of pink TOF ?
(1) Mild PS
(2) Small VSD
(3) Large pressure gradient between PA and RV
(4) Large unrestrictive VSD

37. All are features of TOF except :
(1) Cyanosis (2) Single S2 (3) Cardiomegaly (4) Soft P2

38. Which of the following is not a feature of Pulmonary Atresia with intact ventricular septum ?
(1) PDA (2) RV hypoplasia
(3) RV hypertrophy (4) LVH in ECG

39. All are the features of corrected transposition of great arteries except :
(1) Atrio Ventricular Concordance (2) Atrio Ventricular Discordance
(3) Ventriculo Atrial discordance (4) VSD

40. All of the following conditions have decreased pulmonary blood flow except :
(1) TOF (2) Ebstein's anomaly
(3) Eisenmenger syndrome (4) Unobstructed TAPVC

41. Following ASD defect closure with device upto how long aspirin therapy to be continued :
(1) 1 month (2) 3 months (3) 6 months (4) 9 months

42. All of the following drugs decrease sinus discharge rate except :
(1) Verapamil (2) Amiodarone (3) Quinidine (4) Propranolol

43. Torsades de pointes has all the features except :
(1) Polymorphic VT (2) Monomorphic VT
(3) QT Prolongation (4) Class IA and Class III drugs cause Torsades

44. All of the following drugs can cause bradyarrhythmia except :
(1) Beta blockers
(2) Calcium channel blockers
(3) Class III drugs
(4) Mexiletine

45. Torsades de pointes is caused by all drugs except :
(1) Quinidine (2) Propafenone (3) Procainamide (4) Amlodipine

46. Which is the commonest congenital heart disease in India ?
(1) Aorto pulmonary window
(2) Atrial septal defect
(3) Patent ductus arteriosus
(4) Ventricular septal defect

47. Which of the following statements is false regarding co-arctation of aorta ?
(1) Coarctation of aorta is more common in females
(2) Narrowing of aorta typically located near aortic attachment of ligamentum arteriosum
(3) Ejection systolic murmur is located near the left inter scapular region
(4) Continuous murmur is heard due to collaterals

48. Which of the following is not a component of Tetralogy of Fallots ?
(1) Left ventricular outflow obstruction
(2) Overriding of aorta
(3) Large VSD
(4) Right ventricular hypertrophy

49. Differential cyanosis is seen in which of the following conditions ?
(1) Aorto pulmonary window
(2) Coarctation of aorta with aortic stenosis
(3) Right to left shunt with patent ductus arteriosus
(4) Tetralogy of Fallots

50. Which of the following findings is not seen in a child with a large ventricular septal defect ?
(1) Mid diastolic murmur at apex
(2) Pan systolic murmur at 3rd left intercostal space
(3) Ejection systolic murmur at apex
(4) Wide split of S2

51. Continuous murmur is heard in all the following conditions except one :
(1) Aorto pulmonary window
(2) Tetralogy of Fallots
(3) Coarctation of aorta with collaterals
(4) Patent ductus arteriosus

52. Supra valvular aortic stenosis is usually seen in which of the following conditions ?
(1) Downs syndrome
(2) Turners syndrome
(3) Williams syndrome
(4) Holt - Oram syndrome

53. Left ventricular failure in neonatal period is commonly seen in which of the following congenital heart disease ?
(1) Severe mitral stenosis
(2) Severe aortic stenosis
(3) Ebstein's anomaly
(4) Atrial septal defect

54. Which of the following statements is false in patent ductus arteriosus ?
(1) Anatomical closure of ductus occurs within 12 - 24 hours
(2) Incidence 5 - 10 percent of all congenital heart diseases
(3) Blood will shunt from left to right into PA
(4) The flow in the PDA occurs throughout cardiac cycle

55. In which of the conditions, Duct dependent pulmonary blood flow is not seen ?
(1) Ebsteins anomaly
(2) Pulmonary atresia
(3) Critical Pulmonary stenosis
(4) Critical coarctation of aorta

56. Frequent respiratory tract infections are seen in all the conditions except one :
(1) Coarctation of aorta
(2) Atrial septal defect
(3) Patent ductus arteriosus
(4) Ventricular septal defect

57. What is the incidence of atrial septal defect ?
(1) 5 - 10 percent of congenital heart diseases
(2) 1 - 2 percent of congenital heart diseases
(3) 10 - 15 percent of congenital heart diseases
(4) 15 - 20 percent of congenital heart diseases

58. 3 weeks old baby was brought to critical care unit with tachypnea and difficulty in feeding. Baby was found to have Heart failure. Which of the following conditions this baby likely has ?
(1) Atrial septal defect
(2) Critical aortic stenosis
(3) Ebsteins anomaly
(4) Muscular ventricular septal defect

59. 13 years old girl was evaluated for dizziness for the last few months. On auscultation she has 4/6 ejection systolic murmur at left upper border and inconstant ejection click. What is likely possibility she has ?
(1) Supra valvular aortic stenosis
(2) Valvular pulmonic stenosis
(3) Ebstein's anomaly
(4) Coarctation of aorta

60. 52 years female was evaluated for her shortness of breath since few months. On auscultation her S1 was normal and Wide fixed Second heart sound (S2) is heard. Ejection systolic murmur at pulmonary area heard. Which of the following conditions this female has ?

(1) Ventricular septal defect (2) Small patent ductus arteriosus

(3) Large atrial septal defect (4) Pulmonary valve stenosis

61. Continuous murmur in the left upper sternal area is not heard in which of the following conditions ?

(1) Rupture of sinus valsalva (2) Coronary AV fistula

(3) Coarctation of aorta (4) Small patent ductus arteriosus

62. 22 years female has been evaluated for leg pains on walking and lower limb pulses were feebly felt. She was found to have coarctation of aorta. Balloon dilatation of Coarctation of aorta is indicated when the gradient is :

(1) > 5 mmHg (2) > 8 mmHg (3) > 30 mmHg (4) > 15 mmHg

63. 32 years female, has been referred to a cardiologist clearance for dental procedure. She was told to have a congenital heart disease. Which of the following conditions does not need infective endocarditis prophylaxis ?

(1) Small ventricular septal defect

(2) Small atrial septal defect

(3) Patent ductus artriosus

(4) Coarctation of aorta

64. Which is the most common congenital heart disease seen in adults ?

(1) Small patent ductus arteriosus (2) Ventricular septal defect

(3) Bicuspid aortic valve (4) Atrial septal defect

65. Eisenmenger syndrome is seen in all the following congenital heart diseases, except one :

(1) Large ventricular septal defect (2) Large patent ductus arteriosus

(3) Aorto pulmonary window (4) Severe pulmonary valve stenosis

66. Fontan operation is indicated in which of the following congenital heart disease ?

(1) Transposition of great arteries (2) Single ventricle

(3) Aorto pulmonary window (4) Peripheral pulmonary artery stenosis

67. Balloon dialatation in valvular pulmonary stenosis is indicated when the gradient is :

(1) 20 mmHg (2) 40 mmHg (3) 80 mmHg (4) 50 mmHg

68. All of the following conditions are associated with reduced pulmonary blood flow except one :
(1) Single ventricle with pulmonic stenosis
(2) Tetralogy of Fallots
(3) Double outlet right ventricle with pulmonary stenosis
(4) Pulmonary AV fistula

69. I.V. Prostaglandin is given in which of the following conditions ?
(1) Pulmonary atresia with PDA (2) Coronary AV fistula
(3) Pulmonary AV fistula (4) Critical aortic stenosis

70. Cyanotic spells are seen in all the following conditions except one :
(1) Tricuspid atresia with pulmonary stenosis
(2) Tetralogy of Fallots
(3) DORV with VSD & PS
(4) Rupture of sinus valsalva

71. Which of the following statements is false in atrial septal defect ?
(1) Primum Type of ASD usually close after 2 years
(2) Fossa ovalis ASDs less than 8 mm size usually close
(3) Sinus venosus ASDs do not close
(4) The heart murmur in large ASDs originates from pulmonary artery

72. All of the following statements regarding ventricular septal defect are correct except one :
(1) Most Muscular VSDs will close spontaneously
(2) Perimembranous VSDs can close spontaneously
(3) Outlet VSDs can close by prolapse of aortic valve
(4) Inlet VSDs always close spontaneously

73. Which of the following medications is indicated in the management of Cyanotic spells ?
(1) Diltiazem (2) Esmolol (3) Nifedipine (4) Alpamethyldopa

74. Which is the common mechanism of Cyanotic spells in Tetralogy of Fallots ?
(1) Left to right shunt (2) Increased systemic vascular resistance
(3) Infundibular spasm (4) Increased pulmonary artery pressure

75. In Downs syndrome which of the following chromosomal abnormality is seen ?
(1) Trisomy 18 (2) Trisomy 21 (3) Trisomy 24 (4) Trisomy 26

76. Sotolol is indicated in all the following conditions except one :
(1) Atrial fibrillation (2) Atrial flutter
(3) AV node re-entry (4) Mobitz type 1 block

77. Bretylium tosylate is indicated in which of the following conditions ?
(1) Out of hospital ventricular fibrillation
(2) Atrial flutter
(3) Mobitz type II block
(4) Junctional rythm

78. 18 years old girl was brought to emergency with h/o sweating and palpitations since 30 minutes. Her ECG showed narrow QRS complex with 200 heart rate. Which one of the following drugs is the first choice for her ?
(1) Lignocaine (2) Phenytoin (3) Beryllium (4) Adenosine

79. Which of the following valve has the maximum effective orifice area at aortic area ?
(1) Starr - Edward valve (2) St. Jude valve
(3) Omnicarbon valve (4) Homograft valve

80. Pulmonary artery banding is indicated in which of the following conditions ?
(1) Isolated ventricular septal defect
(2) Large atrial septal defect
(3) Multiple muscular ventricular septal defects
(4) Large PDA

81. 46 years old male, known case of bicuspid aortic valve, severe aortic stenosis and moderate aortic regurgitation got admitted in critical care unit and found to have infective endocarditis with aortic annular abscess. Which of the following valve has the longest durability and function at aortic position ?
(1) Perimount valve (2) Homograft valve
(3) Carpentier Edward valve (4) Medtronic Hancock valve

82. Alfieri repair is advised in which of the following conditions ?
(1) Rheumatic mitral regurgitation
(2) Ebstein's anomaly
(3) Mitral regurgitation due to Mitral valve prolapse
(4) Ischemic mitral regurgitation

83. Ross operation is indicated for which of the following conditions ?
(1) Severe pulmonary artery stenosis
(2) Severe mitral stenosis
(3) Severe aortic valve stenosis with bicuspid aortic valve
(4) Severe mitral regurgitation

84. 1 year 6 months old child was evaluated at cardiology outpatient department for bluish discolouration of body. He was found to have cyanotic congenital heart disease and cardiologist advised operation which is called "Mustard". Which of the following conditions the child has ?

(1) Transposition of great vessels (2) Tricuspid atresia
(3) Pulmonary atresia (4) Ebstein's anomaly

85. 48 years old male, chronic smoker, diabetes mellitus, admitted in intensive care unit with chest pain and sweating. His ECG showed ST elevation in V1 - V6 leads and frequent ventricular ectopics with bigeminy. Which is the drug of choice ?

(1) Lignocaine (2) Verapamil (3) Diltiazem (4) Quinidine

86. Which of the following is not true for Tarsades de pointes ?

(1) Caused by QT shortening
(2) Can be caused by class I A drugs
(3) Can be caused by class III drugs
(4) Is a polymorphic ventricular tachycardia

87. Wolff - Parkinson - White syndrome is characterised by which of the following ?

(1) Long PR with delta wave (2) Short PR with delta wave
(3) Short PR with narrow QRS (4) Long PR with alpha wave

88. 26 years old female, a known case of rheumatic heart disease, with moderate mitral stenosis and atrial fibrillation, has class II dyspnea, she is on tab.digoxin, lasix and oral pencillins. Which of the following drugs increases digoxin blood levels ?

(1) Verapamil (2) Metoprolol (3) Amiodarone (4) Lignocaine

89. 3 years old boy was brought to emergency with bluish discolouration of tongue, fingers and toes while child is crying. He had similar episodes prior to this and he was found to have Tetrology of Fallots. Which of the following drugs is useful for Cyanotic spells ?

(1) Atenolol (2) Esmolol (3) Carvedilol (4) Labetolol

90. 67 years male, known hypertensive, old anterior wall myocardial infarction got admitted with h/o giddiness since 2 weeks. He was found to have LBBB and 3rd degree complete heart block. Which pacing mode cannot be used for this patient ?

(1) VVI (2) AAI - R (3) DDD - R (4) VDD