

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

Term-End Examination

00955

December, 2013

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. Presence of ASD is must for the survival of the child in the following congenital heart diseases except :
 - (1) Tricuspid Atvesia
 - (2) Total anomalous pulmonary venous drainage
 - (3) Tetralogy of Fallot's
 - (4) Pulmonary atvesia

2. 8 year old girl has mid muscular VSD with a gradient of 90 mm of Hg. The best treatment option will be :
 - (1) Leave it to the nature
 - (2) Surgical closure of VSD
 - (3) Percutaneous device closure
 - (4) Digoxin

3. For prevention of cyanotic spells, which one of the following medicine is used :
 - (1) Digoxin
 - (2) Diuretic
 - (3) Propranolol
 - (4) ACE inhibitors.

4. In pentology of Fallot's the additional structural abnormality is :
 - (1) PDA
 - (2) ASD
 - (3) VSD
 - (4) Coarctation of Aorta

5. Differential cyanosis is **not** a feature in the following conditions except :
 - (1) ASD \bar{C} pH
 - (2) VSD \bar{C} pH
 - (3) PDA with pH
 - (4) Corrected transposition of great arteries

6. Long term use of Amiodarone can cause all except :
 - (1) Corneal opacity
 - (2) Lung fibrosis
 - (3) Hypothyroidism
 - (4) Renal failure

7. Everything in respect of Digoxin is **true** in presence of renal failure except :
 - (1) Renal failure will worsen
 - (2) Digoxin toxicity will appear early
 - (3) Blood levels of digoxin will be high
 - (4) Patient will develop Bradyarrhythmias

8. All of the following arteries are used for grafting the coronary arteries except :
(1) Right internal mammary artery (2) Radial artery
(3) Popliteal artery (4) Gastro-epiploic artery
9. ST segment elevation on ECG is seen in all except :
(1) Ventricular aneurysm (2) Brugada syndrome
(3) Acute pericarditis (4) LGL syndrome
10. All of the following are oral antiplatelet agents except :
(1) Prasugrel (2) Ticagrelor
(3) Tirofiban (4) Dipyridamol
11. Which of the following is **not** a A-V sequential pacemaker ?
(1) VDD (2) DDD
(3) Both of the above (4) VVI
12. Pacemaker implantation is indicated in all of the following except :
(1) Complete Heart Block (2) Trifascicular Block
(3) Mobitz type II (4) Wenckebach's
13. Pulmonary vasculature on X- ray is reduced in all except :
(1) Tetralogy of fallot's
(2) Triology of fallot's
(3) VSD with Pulmonary stenosis
(4) Mild pulmonary stenosis with intact IAS and IVS
14. The most specific (diagnostic) investigation for pulmonary embolism is :
(1) D. Dimer test (2) ECHO cardiography
(3) S₁ Q₃ T₃ pattern on ECG (4) CT angio
15. Coronary artery disease is considered to be significant if stenosis is more than :
(1) 50% (2) 60% (3) 75% (4) 90%

16. 25 year unmarried woman is suffering from symptomatic severe Bicuspid Aortic Stenosis. Appropriate line of management is :
- (1) Replacement with bioprosthetic valve
 - (2) Replacement with metallic valve
 - (3) Medical management
 - (4) Balloon Aortic valvotomy
17. Oxygen saturation is equal in all the four chambers of the heart in which of the following :
- (1) Transposition of great arteries
 - (2) Corrected transposition of great arteries
 - (3) Total anomalous pulmonary venous drainage
 - (4) Coarctation of Aorta
18. The ideal treatment for acute severe mitral regurgitation after balloon mitral valvotomy:
- (1) I.V. Digoxin and Frusemide
 - (2) I.V. Dopamine and Dobutamine
 - (3) Both of the above
 - (4) Replacement of mitral valve
19. Pulsus paradoxus is seen in :
- | | |
|--------------------------|---------------------|
| (1) Aortic stenosis | (2) HOCM |
| (3) Pericardial effusion | (4) Mitral stenosis |
20. Lead V₄R is required to be recorded to diagnose :
- | | |
|----------------------------------|----------------------------|
| (1) Dextrocardia | (2) Technical dextrocardia |
| (3) Acute true posterior wall MI | (4) Acute RV infarct |
21. Low set ears, hypertelorism, undescended testis and pulmonary stenosis are the features of :
- | | |
|------------------------|--------------------------|
| (1) Noonan's syndrome | (2) Turner's syndrome |
| (3) William's syndrome | (4) Shy Dragger syndrome |

22. For transposition of great arteries which surgery can be done :
- (1) Mustard operation (2) Arterial switch surgery
(3) Both of the above (4) B.T shunt
23. PSVT is commonly observed in which of the following conditions ?
- (1) MVP (2) WPW syndrome
(3) LGL syndrome (4) All of the above
24. Drugs that cause QT prolongation are :
- (1) Sotalol (2) Cisapride
(3) Both of the above (4) Diltiazem
25. Beta blocker with Alpha blocking activity is seen in :
- (1) Atenolol (2) Nebivolol
(3) Metoprolol (4) Carvedilol
26. Beta blockers are contraindicated in :
- (1) First degree A.V block (2) Psychiatric disorders
(3) Peripheral artery disease (4) All of the above
27. Drug of choice for termination of PSVT :
- (1) I.V. Digoxin (2) I.V. Amiodarone
(3) I.V. Adenosine (4) I.V. Xylocard
28. Symptoms in HOCM are relieved by Beta blockers because of its :
- (1) Negative inotropic effect (2) Negative chronotropic effect
(3) Both of the above (4) Antiarrhythmia action
29. Long term use of digoxin in heart failure patients has shown to :
- (1) Decrease Mortality (2) No effect of Mortality
(3) Increase Mortality (4) None of the above

30. Which of the following drugs are used in HOCM :
- (1) Digoxin
 - (2) Verapamil
 - (3) Beta blockers
 - (4) 2 and 3
31. Patient with permanent pacemaker implantation should **not** undergo :
- (1) Radiation therapy
 - (2) Security check with metal detector
 - (3) MRI
 - (4) 2 and 3
32. Vasopressors like dopamine will **not** be effective in presence of :
- (1) Metabolic Alkalosis
 - (2) Metabolic Acidosis
 - (3) Hypoxia
 - (4) All of the above
33. Which is true regarding defibrillation :
- (1) Only 80% of selected energy is delivered to heart
 - (2) Always give synchronous shock
 - (3) Apply lubricant jelly before delivering shock
 - (4) All of the above
34. Coronary angiography can be performed via :
- (1) Femoral artery
 - (2) Radial artery
 - (3) Ulnar artery
 - (4) All of the above
35. Which is true regarding multislice CT Coronary angiography :
- (1) Positive predictive value is 100%
 - (2) Negative predictive value is 100%
 - (3) Gold standard investigation for CAD
 - (4) Is invasive in nature
36. Which is true regarding saphenous vein graft :
- (1) Distal end of saphenous vein graft is anastomosed to Aorta
 - (2) Proximal end of saphenous vein graft is anastomosed to coronary artery
 - (3) Both of the above
 - (4) Distal end of saphenous vein graft is anastomosed to coronary artery

37. Ebstein's anomaly is characterised by :
- (1) Atrialisation of RV
 - (2) Ventricularisation of RA
 - (3) Absent tricuspid valve
 - (4) Severe pH
38. Prominent 'a' waves of JVP is seen in :
- (1) RA enlargement
 - (2) Tricuspid stenosis
 - (3) Tricuspid regurgitation
 - (4) ASD
39. Which is intrinsic pacemaker of the heart :
- (1) SA Node
 - (2) AV Node
 - (3) Ventricular muscles (myocardium)
 - (4) All of the above
40. Correct statement about RV is :
- (1) Compliant chamber
 - (2) Non compliant chamber
 - (3) Has pressure less than RA
 - (4) Has pressure less than MPA
41. Transoesophageal ECHO is indicated if you are suspecting :
- (1) LA clots
 - (2) Vegetations on valves
 - (3) Paravalvular leak in prosthetic valve
 - (4) All of the above
42. Which of the following is **not** a feature of coarctation of Aorta ?
- (1) Radiofemoral delay is absent
 - (2) Patient has hypertension
 - (3) Patient may have Rib notching
 - (4) Lower segment of the body is less developed than upper segment

43. Which of the following is true about I.V. Adenosine injection ?
- (1) Half life is ultrashort
 - (2) Should be diluted before injecting
 - (3) Used to treat ventricular tachycardia
 - (4) None of the above
44. Which of the following is required to correct dilutional hyponatraemia ?
- (1) Restrict fluid intake
 - (2) Infusion of 3% NaCl
 - (3) Tolvaptan
 - (4) All of the above
45. The first step to treat vasovagal syncope is :
- (1) IV Fluids
 - (2) IV Mephentin
 - (3) IV Atropine
 - (4) Leg Elevation
46. All of the following are acyanotic congenital heart diseases except :
- (1) Atrial septal disease
 - (2) Ventricular septal disease
 - (3) Patent ductus arteriosus
 - (4) Tetralogy of Fallot
47. Which one of the following is **not** an obstructive lesion ?
- (1) Aortic stenosis
 - (2) Coarctation of aorta
 - (3) Pulmonary stenosis
 - (4) Mitral regurgitation
48. All of the following are left to right shunts except :
- (1) ASD
 - (2) VSD
 - (3) Eisenmenger's syndrome
 - (4) PDA

49. Heart murmur in ASD is due 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.
50. 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
51. 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
52. All are features of TOF except :
- (1) Cyanosis
 - (2) Single S₂
 - (3) Cardiomegaly
 - (4) Soft P₂
53. 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
54. 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

55. All of the following conditions have decreased pulmonary blood flow except :
- (1) TOF (2) Ebstein's anomaly
 (3) Eisenmenger Syndrome (4) Unobstructed TAPVC
56. Which of the following is **not** a duct dependent pulmonary blood flow :
- (1) Critical aortic stenosis (2) Pulmonary atresion
 (3) Tetralogy of Fallot (4) Critical pulmonary stenosis
57. Prolonged prostaglandin 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 pulmonary blood flow
 (2) Increased right to left shunt
 (3) Decreased right to left shunt
 (4) Fall in SVR
59. Which is **correct** in management of cyanotic spells ?
- (1) Knee chest position (2) Morphine
 (3) Soda bicarbonate (4) All of the above
60. Which is **not correct** regarding arterial switch operation ?
- (1) Coronaries are to be transferred (2) Great arteries are switched
 (3) Anatomical correction (4) Physiological correction
61. 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.
62. All of the following drugs decrease sinus discharge rate except :
- (1) Verapamil (2) Amiodarone
 (3) Quinidine (4) Propranolol

63. 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.
64. All of the following drugs can cause brady arrhythmia except :
- (1) Beta blockers
 - (2) Calcium channel blockers
 - (3) Class III drugs
 - (4) Mexidetine
65. Torsades de pointes is caused by all drugs except :
- (1) Quinidine
 - (2) Propafenone
 - (3) Procainamide
 - (4) Amlodipine
66. Which of the following is **incorrect** regarding amiodarone usage treatment ?
- (1) Atrial flutter
 - (2) VT
 - (3) AVNRT
 - (4) None of the above
67. Amiodarone causes all except :
- (1) Pulmonary toxicity
 - (2) Hyperthyroidism
 - (3) Tachycardia
 - (4) Photosensitivity
68. Which is false regarding sotalol ?
- (1) Used in VT
 - (2) Used in atrial arrhythmias
 - (3) Decreases defibrillation
 - (4) Increases defibrillation threshold
69. 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

70. Which is **true** regarding interference with pacemaker ?
- (1) MRI Scanners (2) Shock wave lithotripsy
(3) Radiation therapy (4) All of the above
71. Which is **true** regarding defibrillation ?
- (1) Solid gel electrodes (Adhesive) can cause higher 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
72. Which is **not** a characteristic features of internal mammary artery :
- (1) Size matches coronary arteries
(2) Excellent long terms patency rate
(3) Resistant to atherosclerosis
(4) Vulnerable to atherosclerosis
73. Radial artery patency is tested by the following method :
- (1) Stress test (2) Allen's test
(3) Dobutamine echo (4) None
74. The following duration of time should be given to prevent spasm of radial artery :
- (1) 6 months (2) 1 month (3) 3 months (4) 2 months.
75. Which one of the following graft artery has long term patency ?
- (1) Vein graft (2) Internal mammary artery
(3) Radial artery (4) None of the above
76. In the following percentage of stenosis of left main artery surgery is done :
- (1) 25% (2) 50% (3) 70% (4) None

77. Which one of the following is left main equivalent ?
- (1) Block in proximal LAD and proximal circumflex
 - (2) Block in mid LAD and proximal circumflex
 - (3) Block in mid LAD and mid circumflex
 - (4) Block in proximal LAD and mid circumflex
78. Which of the following tests help in assessing viable myocardium ?
- (1) Stress thallium
 - (2) PET
 - (3) Dobutamine Echo
 - (4) All the above
79. Which of the following statement is **true** in OPCAB ?
- (1) Proximal anastomosis done before bypass
 - (2) Proximal anastomosis done after bypass
 - (3) Distal anastomosis done before bypass
 - (4) All the above
80. Which of the following statement is **correct** regarding total arterial revascularisation ?
- (1) RIMA is anastomosed to side of LIMA
 - (2) Radial artery is anastomosed to side of LIMA
 - (3) (1) and (2)
 - (4) None of the above
81. Total arterial revascularisation includes all except :
- (1) LIMA is anastomosed to diagonal as side to side
 - (2) LIMA to LAD as end to side
 - (3) RIMA to side of LIMA
 - (4) None of the above
82. Which one of the prosthetic valve has lowest effective orific area ?
- (1) St. Jude's
 - (2) Medtronic hall
 - (3) Starr Edwards
 - (4) Carbomedics

90. Which one is **not** a treatment for TOF ?

- | | |
|---------------------|----------------------|
| (1) BT Shunt | (2) Bontal procedure |
| (3) Waterston Shunt | (4) Pott's Shunt |

- o o o -