

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

00965

Term-End Examination

December, 2011

MCC-003 : COMMON CARDIOVASCULAR DISEASES - I

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 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) *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. In pre eclampsia all the following features are seen except ?
 - (1) Protinuria
 - (2) B.P > 160/95 mm Hg
 - (3) Seizures
 - (4) Pedal oedema

2. Which is the commonest cause for secondary hypertension ?
 - (1) Cushing syndrome
 - (2) Renal parenchymal disease
 - (3) Pheochromocytoma
 - (4) Primary aldosteronism

3. All the following statements regarding sphygmomanometer in recording BP are correct except :
 - (1) Lower edge of the cuff should be 2.5 cms above the antecubetal fossa
 - (2) Width of the cuff must be 80% of the circumference of the arm
 - (3) The length of rubber bag must cover more than 80% of the circumference of the limb
 - (4) In pregnant women the BP must not be recorded on supine position

4. Which of the following drug belongs to thiazide group of diuretics ?
 - (1) Torsamide
 - (2) Eplerenone
 - (3) Indapamide
 - (4) Amiloride

5. In untreated hypertension patients what percentage of patients die with coronary artery disease :
 - (1) 15%
 - (2) 33%
 - (3) 50%
 - (4) 26%

6. When do you say Isolated Systolic Hypertension (ISH)
 - (1) Systolic > 180 mm Hg : Diastolic > 90 mm Hg
 - (2) Systolic > 160 mm Hg : Diastolic > 90 mm Hg
 - (3) Systolic 140 mm Hg : Diastolic < 90 mm Hg
 - (4) Systolic 150 mm Hg : Diastolic 100 mm Hg

7. As per JNC VII classification Stage 2 hypertension said to be present when blood pressure said to be which reading ?
 - (1) More than 140/90 mm Hg
 - (2) More than 160/90 mm Hg
 - (3) More than 160/100 mm Hg
 - (4) More than 170/90 mm Hg

8. Which of the following drug belongs to potassium sparing diuretics ?
 - (1) Amiloride
 - (2) Spironolacotne
 - (3) Bumetanide
 - (4) Hydrochlorothiazide

9. Which of the following drug has both alpha and beta blockers effect ?
 - (1) Bisoprolol
 - (2) Acebutolol
 - (3) Carvedilol
 - (4) Metaprolol

10. Which of the following drug belongs to loop diuretics ?
 (1) Bumetanide (2) Triamterine (3) Spironolactone (4) Chlorthalidone
11. Which of the following drug belongs to central alpha 2 agonists ?
 (1) Prazosin (2) Fosinopril (3) Reserpine (4) Hydralazine
12. All of the following drugs can be safely given in pregnancy except :
 (1) Labetolol (2) Ramipril (3) Methyldopa (4) Digoxin
13. The Target blood pressure in diabetes mellitus patients is :
 (1) < 110/80 mm Hg (2) < 120/80 mm Hg
 (3) < 130/80 mm Hg (4) < 140/90 mm Hg
14. Which of the following antihypertensive medication is the first line of choice in diabetes mellitus patients ?
 (1) Diuretics (2) Amlodipine (3) Ramipril (4) Metaprolol
15. Which of the following condition causes heart failure with volume overload ?
 (1) Aortic stenosis (2) Co-archtation of aorta
 (3) Hypertension (4) Mitral regurgitation
16. By decreasing 1 kg of body weight how much blood pressure fall on an average would be expected ?
 (1) 3.5 mm Hg (2) 1.6 mm Hg (3) 4.5 mm Hg (4) 5 mm Hg
17. Which of the following condition causes heart failure with pressure overload ?
 (1) Aortic regurgitation (2) Ventricular septal defect
 (3) Co-archtation of aorta (4) Patent ductus arteriosus
18. All the following statements regarding Frank Starling mechanism are correct except ?
 (1) Stroke volume is related to end systolic volume
 (2) Stroke volume is related to end-diastolic volume
 (3) Mechanism accounts for increased inotropic state
 (4) Increased preload helps in sustaining cardiac performance
19. Which of the following drug belongs to aldosterone receptor blockers ?
 (1) Indapamide (2) Eplerenone (3) Triamterine (4) Torsemide

20. Which of the following drug belongs to type III phosphodiesterase inhibitors ?
- (1) Sodium nitropruside
 - (2) Milrinone
 - (3) Levosimendone
 - (4) Sildenafil
21. Which is commonest cause of right sided heart failure ?
- (1) Infective endocarditis
 - (2) COPD
 - (3) Pulmonary embolism
 - (4) Secondary to left sided heart failure
22. All the following statements regarding digoxin are correct except :
- (1) It is co prescribed with diuretics
 - (2) It is the drug of choice for rate control in atrial fibrillation in thyrotoxicosis
 - (3) Arrhythmias are common if drug levels are > 1.8 ng/ml
 - (4) Digoxin half life is 36 hrs
23. All the following drugs are usually indicated in diastolic heart failure with hypertension except one :
- (1) Diuretics
 - (2) Digoxin
 - (3) Angiotensin receptor blockers
 - (4) Angiotensin converting enzyme inhibitors
24. All the following drugs have drug interactions with Digoxin pharmacokinetics except :
- (1) Phenytoin
 - (2) Amiodarone
 - (3) Quinidine
 - (4) Verapamil
25. All the following statements regarding Milrinone are correct except one :
- (1) It increases myocardial contractility
 - (2) It causes arterial and venous constriction
 - (3) It activates phosphodiesterase III
 - (4) It increases cyclic guanine monophosphate in smooth muscle
26. High cardiac output failure is seen in all the following conditions except ?
- (1) Thyrotoxicosis
 - (2) Beri beri
 - (3) Arterio - Venous fistula
 - (4) Hypertension
27. All the following statements regarding digoxin are correct except :
- (1) It acts via parasympathomimetic activation
 - (2) It inhibits Na-K-ATPase
 - (3) Increase in the cytosolic Ca^{+2} concentration
 - (4) It acts via activation of sympathetic system

28. Thrombolysis is recommended in all the following patients of pulmonary embolism except ?
- (1) Patients with massive pulmonary embolism
 - (2) All patients with deep vein thrombosis
 - (3) Patients with sub-massive pulmonary embolism
 - (4) Patients who develop recurrent pulmonary embolism despite treatment with heparin
29. All of the following pharmacologic agents are direct thrombin inhibitors except one :
- (1) Hirulog (2) Hirudin (3) Ximelagatran (4) Warfarin
30. Which of the following test has high sensitivity to detect pulmonary embolism ?
- (1) Ventilation perfusion scan (2) D-dimer more than 500 micrograms
 - (3) MRI (4) CT pulmonary angiography
31. In Framingham major criteria for heart failure all the following are included except :
- (1) Pleural effusion (2) Central venous pressure > 16 cm H₂O
 - (3) S3 gallop (4) Neck vein distension
32. Eplerenone is specifically used in which of the following condition ?
- (1) Hypertension (2) Heart failure
 - (3) Phochromocytoma (4) Renal failure
33. In heart failure patients all the following measures are done except one :
- (1) Ultrafiltration (2) Fluid restriction
 - (3) Discontinuation of NSAID drugs (4) Nifedipine dose to be increased
34. Angiotensin converting enzyme inhibitors cause ⁹all the following adverse effects except one :
- (1) Hypotension (2) Hyponatremia (3) Hyperkalemia (4) Flushing
35. All the following medications are used in pulmonary edema except one :
- (1) Digoxin (2) IV Sodium Nitropruside
 - (3) Inj. Metoprolol (4) Inj. Furosemide
36. Which of the following drugs is used for ventricular arrhythmias due to digoxin ?
- (1) Amiodarone (2) Phenytoin (3) Propafenone (4) Quinidine
37. Alveolar oedema occurs when pulmonary venous pressure exceeds which one of the following pressure :
- (1) 10 - 12 mm Hg (2) > 25 mm Hg (3) 12 - 18 mm Hg (4) 18 - 20 mm Hg

38. All the following findings are seen in the metabolic syndrome except one :
- (1) Hypertriglyceridemia
 - (2) Increased HDL-c
 - (3) Hyperinsulinemia
 - (4) Glucose intolerance
39. All the following conditions are absolute contraindications for thrombolysis except one :
- (1) Active peptic ulcer
 - (2) Ischaemic stroke within 3 months
 - (3) Suspected aortic dissection
 - (4) Prior intracranial hemorrhage
40. All the following measures are necessary in right ventricular myocardial infarction except one
- (1) Early thrombolysis
 - (2) Early use of nitrates
 - (3) Maintain AV synchrony in case of high grade block
 - (4) Maintain right ventricular preload
41. All the following statements regarding Dobutamine are correct except one :
- (1) It causes the release of nor epinephrine
 - (2) has more effective positive inotrope action than dopamine
 - (3) plasma half life is < 2 minutes
 - (4) It is relatively a weak beta agonist
42. All the following statements regarding Aldosterone are correct except :
- (1) Spironolactone reduces myocardial fibrosis
 - (2) In RALES study Spironolactone showed 26% reduction in mortality
 - (3) Aldosterone causes potassium loss in distal tubules
 - (4) Aldosterone causes sodium loss in the distal tubules
43. 53 year old bank manager, known hypertensive, diabetic for 6 years admitted with chest pain of one day duration. ECG showed ST depression in V1 - V6. His heart rate is 98/mt. his blood pressure is 146/90 mm Hg. Troponin was 0.43. Which antihypertensive medication is the first choice for him ?
- (1) Long acting Nifedipine
 - (2) Metoprolol
 - (3) IV Enalapril
 - (4) IV sodium nitropruside
44. Nitroglycerine is indicated in all the following conditions except one :
- (1) Bradycardia < 50/mt
 - (2) Control of hypertension
 - (3) Management of pulmonary congestion
 - (4) Ongoing chest discomfort

45. Aspirin causes antithrombotic effect by which one of the following mechanism ?
- (1) Inhibition of ADP
 - (2) Inhibition of Thromboxane A₂ production
 - (3) Inhibition of Endothelin
 - (4) Inhibition of prostacyclin D₂
46. Which of the following statement is incorrect on cardiac markers in myocardial infarction ?
- (1) CK MB is most common in skeletal muscle
 - (2) Normal CK MB activity is 2 - 4 IU/L
 - (3) CK MB - sensitivity > 90% at 6 hours
 - (4) CK MB returns to normal levels after 72 hours
47. All the following findings are seen in cardiogenic shock except one :
- (1) PCWP > 18 mmHg
 - (2) LVEDP < 18 mmHg
 - (3) Cardiac index < 1.8 L/mt/m²
 - (4) Systolic blood pressure < 90 mmHg
48. Intra-aortic balloon pump is indicated in all the following conditions except one :
- (1) Massive anterior wall myocardial infarction with shock
 - (2) During unprotected LMCA stenting
 - (3) Aortic dissection
 - (4) Non ST elevation MI with cardiac failure
49. In vasospastic Angina (Prinzmetals angina) all the following medications are indicated except one :
- (1) Clopidogrel
 - (2) Metoprolol
 - (3) Amlodipine
 - (4) Nitroglycerine
50. In unstable angina all the following drugs can be safely given except one :
- (1) Bisoprolol
 - (2) Short acting Dihydropyridines
 - (3) Amlodipine
 - (4) Long acting nitrates
51. All the following drugs are preferred except one in heart failure patients :
- (1) Bisoprolol
 - (2) Carvedilol
 - (3) Atenolol
 - (4) Nebivolol
52. All the following statements regarding defibrillation are correct except one :
- (1) In children 10 joules/kg to be delivered
 - (2) The optimal paddle size for adults are 13 cm
 - (3) The survival rate is 90% if the patient is defibrillated
 - (4) In adults 200 joules to be given first

53. All the following conditions are relative contraindications for thrombolysis except one :
- (1) Pregnancy
 - (2) Active peptic ulcer
 - (3) Prolonged CPR
 - (4) Ischaemic stroke within 3 Hours
54. Which of the following thrombolytic drug has high affinity with Plasminogen ?
- (1) Streptokinase
 - (2) Urokinase
 - (3) t-PA
 - (4) Anisolyated plasminogen - SK complex
55. Hybernation is due to which one of the following mechanism ?
- (1) Acute reversible LV dysfunction following reperfusion of occluded artery
 - (2) Chronic reversible LV dysfunction due to chronic occlusion of artery
 - (3) It is due to reperfusion injury due to embolism
 - (4) It is due to necrosis of myocardium
56. Which is the correct dose of tissue plasminogen activator ?
- (1) 1.5 million units over 30 mts
 - (2) 5 lacks units over 30 mts
 - (3) 0.75 mg/kg body weight over 30 mts
 - (4) 30 mg over 10 mts
57. All the following statements are correct regarding Hydralizine except one :
- (1) It is a potent veno dilator
 - (2) Hypotension is the common side effect
 - (3) It is combined with Isosorbtrate dinitrate in heart failure
 - (4) It markedly increases cardiac output
58. All the following drugs have a positive inotropic effect except one :
- (1) Dopamine
 - (2) Dobutamine
 - (3) Verapamil
 - (4) Norepinephrine
59. Pulsus alternans is seen in which of the following condition ?
- (1) Aortic stenosis and aortic regurgitation
 - (2) Systolic heart failure
 - (3) Malignant hypertension
 - (4) Co-arctation of aorta and bicuspid aortic valve

60. Hepato jugular reflux is seen in which of the following condition ?
- (1) Effusive constrictive pericarditis
 - (2) Severe tricuspid regurgitation
 - (3) Cardiac tamponade
 - (4) Pulmonary embolism
61. NT Pro BNP - bio marker is usually used to diagnose which of the following condition ?
- (1) Pulmonary embolism
 - (2) COPD
 - (3) Deep vein thrombosis
 - (4) Heart failure
62. Incidence of ventricular septal rupture after Myocardial infarction is :
- (1) 2%
 - (2) 5%
 - (3) 6%
 - (4) 8%
63. In patient with previous Myocardial infarction, who also has LBBB on ECG, the investigation of choice for risk stratification is ?
- (1) Treadmill test
 - (2) Exercise myocardial perfusion imaging (SPECT)
 - (3) Dopamine stress ECHO
 - (4) 64 slice CT angiogram
64. The following are the features of Stress cardiomyopathy except :
- (1) Normal epicardial coronary arteries
 - (2) Precipitated by emotional stress
 - (3) Basal Hyperkinesis with severe apical hypokinesis
 - (4) No regional wall motion abnormality
65. Management of cyanotic spells include all except :
- (1) Oxygen
 - (2) Knee-chest position
 - (3) Salbutamol nebulisation
 - (4) Morphine
66. Dabigatran is :
- (1) Factor X - a inhibitor
 - (2) Direct thrombin inhibitor
 - (3) Vitamin K dependent anticoagulant
 - (4) Low molecular weight Heparin

67. Facilitated PCI means :
- (1) PCI following failed thrombolysis
 - (2) PCI following either thrombolysis or GP II b/3a inhibitors
 - (3) PCI following loading dose of clopidogrel 300 mgs
 - (4) PCI following loading dose of LMWH
68. Kerly B lines develop when pulmonary venous pressure is :
- (1) > 6 mm Hg
 - (2) > 12 mm Hg
 - (3) > 18 mm Hg
 - (4) > 25 mm Hg
69. Incidence of Complete heart block in myocardial infarction is :
- (1) 5%
 - (2) 10%
 - (3) 15%
 - (4) 20%
70. The following can cause cyanotic spell except :
- (1) TOF
 - (2) DORV and VSD and PS
 - (3) TGA and VSD and PS
 - (4) Common AV septal defect
71. The following are risk factors for restenosis after PCI with stenting except :
- (1) Diabetes Mellitus
 - (2) Large calibre artery
 - (3) Incomplete dilatation of the stenosis
 - (4) Saphenous vein graft stenting
72. According to Brauwalds clinical classification of Unstable angina class III has mortality of ?
- (1) 7%
 - (2) 10%
 - (3) 15%
 - (4) 20%
73. All the following conditions cause elevated triglyceride levels except :
- (1) Obesity
 - (2) Smoking
 - (3) Diabetes
 - (4) Hyperthyroidism
74. All are true about Nicotinic acid except :
- (1) Flushing is a common side effect
 - (2) It increases Lp(a)
 - (3) It increases HDL
 - (4) It causes glucose intolerance
75. In rupture of papillary muscle all are true except :
- (1) 1% of MI patients develop papillary rupture
 - (2) It usually occurs 2 days after infarction
 - (3) Holo systolic murmur is seen
 - (4) Systolic Thrill is commonly seen

76. Drug of choice for narrow complex regular tachycardia is :
 (1) Digoxin (2) Adenosine (3) Verapamil (4) Diltiazem
77. All the following are intravenous medication to reduce BP except :
 (1) Enalaprilat (2) Labetolol (3) Nifedipine (4) Nitroglycerin
78. The half life of adenosine is :
 (1) 10 seconds (2) 10 minutes (3) 1 hour (4) 2 hours
79. Troponin I levels return to normal levels after MI within :
 (1) 24 - 36 hours (2) 5 - 6 days (3) 10 - 12 days (4) 4 - 6 weeks
80. In cardiac resynchronisation therapy the leads are placed in :
 (1) RA, LA, LV (2) RA, RV, Cardiac vein
 (3) RA, RV, LV (4) RV, LV, Cardiac vein
81. All the following are side effects of Statins except :
 (1) Abnormal LFT (2) Myopathy (3) Myalgia (4) Flushing
82. Which of the following particle is involved in reverse cholesterol transport mechanism ?
 (1) LDL (2) VLDL (3) HDL (4) Triglycerides
83. In Keith-wagner Grade III hypertensive fundus changes the following in finding are seen except :
 (1) Copper wire (2) Papilledema
 (3) Arterio venous nipping (4) Flame shaped hemorrhages
84. Therapeutic life style changes include all except :
 (1) Saturated fat < 7% of total cholesterol
 (2) Cholesterol intake < 300 mg/day
 (3) Physical activity to expend atleast 200 kcl/day
 (4) Maintenance of ideal body weight
85. Left Ventricular hypertrophy is diagnosed by ECG when R voltage in L1 + S III is more than :
 (1) > 5 mm (2) > 15 mm (3) > 25 mm (4) > 35 mm

86. ACEI/ARBs are preferred in hypertensive patients with one of the following risk factors except :
- (1) Eclampsia
 - (2) Heart failure
 - (3) Coronary artery disease
 - (4) Diabetes Mellitus
87. All are true about Fibrinogen except one :
- (1) It is glycoprotein made in the Liver
 - (2) It is a clotting factor
 - (3) It activates plasminogen
 - (4) Its levels higher than 350 mg/dl are risk factors for MI
88. The dose of streptokinase in myocardial infarction is :
- (1) 1.5 million units 30 - 60 minutes
 - (2) 2.5 Million units over 15 minutes
 - (3) 1.5 lak units over 30 minutes
 - (4) 2.5 laks units over 60 minutes
89. The following is true about ARBs :
- (1) Selective AT-1 receptor blocker
 - (2) Selective AT-2 receptor blocker
 - (3) Both AT-1 and AT-2 receptor blocker
 - (4) Beta Adrenergic receptor blocker
90. What is the usual dose of Irbesartan ?
- (1) 25 - 100 mg
 - (2) 150 - 300 mg
 - (3) 2.5 - 40 mg
 - (4) 10 - 40 mg
-