

00829

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

Term-End Examination

December, 2014

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 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. About recording blood pressure in a pregnant lady, which of the following statements are correct ?
- (a) Supine blood pressure recording
 - (b) Phase 4 Korotkoff sound should be taken as diastolic BP
 - (c) Diastolic BP of 90 mm Hg is abnormal
 - (d) A difference of >10 mm Hg in systolic BP is observed between the two upper limbs
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
2. BP should be rapidly controlled in which of the following conditions
- (a) Eclampsia
 - (b) Aortic dissection
 - (c) Acute left ventricular failure
 - (d) Elderly hypertensive with diastolic BP > 110 mm Hg
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
3. Which of the following statements is correct ?
- (a) Hypertensive urgencies require rapid BP reduction within one hour
 - (b) Presence of retinal hemorrhage is indicative of malignant hypertension
 - (c) Intravenous labetalol is useful in hypertensive emergency
 - (d) Hypertension needs to be rapidly controlled in epistaxis
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

4. Which of the following statements are correct ?

- (a) Daily consumption of > 1 ounce of ethanol increases BP
 - (b) The selectivity of Betablockers is best in high doses
 - (c) In pheochromocytoma, urinary metanephrines are elevated
 - (d) Persistent hyperkalemia is a feature of primary hyperaldosteronism
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

5. Which of the following statements are correct ?

- (a) Pheochromocytoma presents with spells of nausea, headache, palpitation, sweating, nervousness & tremors
 - (b) Pre-eclampsia denotes elevated BP after 20 weeks of gestation
 - (c) ACE inhibitors and Thiazides reduce the frequency of recurrent strokes
 - (d) When diastolic BP increases from 91 mm Hg to 105 mm Hg, risk of stroke increases 6 fold
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

6. Which of the following statements regarding ACE inhibitors are correct ?

- (a) Reduce the afterload by peripheral vasodilatation
 - (b) Cause upregulation of sympathetic nervous system
 - (c) Improve baroreceptor function
 - (d) Cause degradation of bradykinin
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

7. Which of the following betablockers have vasodilatation property ?
- (a) Carvidilol
 - (b) Nebivolol
 - (c) Labetalol
 - (d) Acebutolol
- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c
8. Which of the following antihypertensive drugs are centrally acting ?
- (a) Clonidine
 - (b) Moxonidine
 - (c) Methyldopa
 - (d) Terazosin
- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c
9. In non pharmacological treatment of heart failure
- (a) weight loss reduces systemic vascular resistance
 - (b) cardiac rehabilitation improves functional capacity
 - (c) severe fluid restriction can lead to renal dysfunction
 - (d) hyponatremia warrants liberal fluid intake
- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

10. Which of the following statements about Renin Angiotensin system is correct ?
- (a) Angiotensin converting enzyme causes release of aldosterone from adrenal cortex
 - (b) Systemic vasodilatation and fluid retention is caused by angiotensin II
 - (c) Breakdown of kinins is due to angiotensin converting enzyme
 - (d) Angiotensinogen is formed in the liver
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
11. Which of the following will occur in acute heart failure
- (a) Paroxysmal nocturnal dyspnoea
 - (b) Tachycardia
 - (c) S3 gallop
 - (d) Cardiomegaly
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
12. A well compensated cardiac failure patient gets admitted with sudden worsening of dyspnoea. Which of the following can be the reason ?
- (a) Stoppage of drugs
 - (b) Occurrence of tachyarrhythmias
 - (c) Acute mitral regurgitation
 - (d) Fluid restriction
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

- 13.** Which of the following statements regarding heart failure are correct ?
- (a) A person with hypertension is in stage A of heart failure
 - (b) Betablocker can be initiated in stage B of heart failure in patients with **valvular** heart disease and coronary artery disease
 - (c) Digoxin can be used in stage C of heart failure
 - (d) Family history of cardiomyopathy puts a person in stage B of heart failure
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 14.** Which of the following causes of heart failure are correctable ?
- (a) Arrhythmias
 - (b) Valvular heart disease
 - (c) Amyloidosis
 - (d) Sarcoidosis
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 15.** Which of the following statements in treatment of heart failure is correct ?
- (a) Short acting metoprolol does not improve survival
 - (b) Spironolactone reduces mortality
 - (c) Hydralazine decreases preload
 - (d) Calcium channel blockers improve survival
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

16. Which of the following statements regarding cardiac resynchronisation therapy is correct ?
- (a) Done in patients with QRS complex duration of more than 120 msecs
 - (b) Both ventricles are paced using 3 leads
 - (c) There is improvement in quality of life
 - (d) Clinical trials have shown enhanced survival
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) b + c + d
17. In acute coronary syndrome
- (a) fissuring and ulceration of atherosclerotic plaque is a triggering factor
 - (b) platelets have important role in pathogenesis
 - (c) more than half of deaths following acute myocardial infarction occur before the patient is hospitalised
 - (d) modern management of acute myocardial infarction has eliminated non fatal recurrence
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
18. In the pathogenesis of plaque formation
- (a) neovascularisation of media can develop below intimal thickening
 - (b) lipid core is derived from dying foam cells
 - (c) macrophages invading the plaque cause destruction of collagen matrix
 - (d) endothelial erosion occurs as the first step in plaque formation
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

19. Among the coronary risk factors

- (a) smoking is the most single preventable cause of death
- (b) nicotine increases fibrinogen, heart rate and blood pressure
- (c) adverse effect of smoking is less in women
- (d) cardiovascular risk of smoking continues beyond 20 years after cessation

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

20. Which of the following statements are correct ?

- (a) Sedentary lifestyle doubles the risk of coronary artery disease
- (b) Sedentary lifestyle is associated with other risk factors like diabetes mellitus, hypertension, dyslipidemia and obesity
- (c) Every adult should do moderate physical exercise of 30 minutes or more on most of the days of the week
- (d) Exercise programs though improve quality of life do not reduce mortality

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

21. Which of the following statements are correct ?

- (a) While treating homocystenemia, Vit B12 levels should be tested before initiating folic acid
- (b) Plasma fibronogen level of more than 350 mg/dl predicts increased risk for stroke and myocardial infarction
- (c) Thrombospondins have an important role in cell adhesion and thrombosis
- (d) Use of fibrates in addition to statins has shown mortality benefit in clinical trials

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

22. Identify the correct statements

- (a) Epicardial coronary arteries usually act as conductance vessels
- (b) Prinzmetal angina is due to abnormal function of resistance vessels
- (c) intramyocardial arterioles control the microvascular circulation
- (d) resistance vessels maximally constrict with significant occlusion of conductance vessels

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

23. Which of the following statements are correct ?

- (a) Cardiac contraction requires aerobic metabolism
- (b) 30% of oxygen from coronary circulation is extracted at rest
- (c) aortic diastolic blood pressure influences coronary perfusion
- (d) increased myocardial oxygen requirement is met by increased oxygen extraction

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

24. Which of the following statements are correct ?

- (a) Unesterified cholesterol stabilises membrane fluidity
- (b) Cholesterol ester is hydrophilic
- (c) Triglycerides are esters of glycerol
- (d) Lipoproteins contains phospholipids and free cholesterol in its core

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

- 25.** Which of the following statements are correct ?
- (a) Statins reduce total cholesterol in mixed hyperlipidemias
 - (b) Statin effectively reduce LDL cholesterol in primary hyperlipidemia
 - (c) Statins should be discontinued in greater than three fold elevation of transaminases
 - (d) Routine CK measurements to detect myopathy is warranted in all patients receiving statins
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 26.** A 50 year old diabetic is admitted with blood pressure of 80\40 mm Hg. JVP is 3cm above clavicle in sitting position. Which of the following conditions are possible ?
- (a) Cardiac tamponade
 - (b) right ventricular infarction
 - (c) acute pulmonary embolism
 - (d) hemorrhagic shock
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 27.** A 70 year old diabetic and hypertensive is admitted with chest pain of 2 hours duration. His 12 lead ECG shows ST elevation of 3 mm in II, III & aVF and 1 mm in rSR and V4R. Which of the following actions are correct ?
- (a) To give IV fluids if systolic BP is less than 90 mm Hg
 - (b) Sublingual nitroglycerine if chest discomfort persists
 - (c) To avoid morphine if sedation is needed
 - (d) If the patient develops complete heart block, QRS will be wide
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

- 28.** Following are the indications for temporary transvenous pacing in acute myocardial infarction
- (a) complete heart block
 - (b) Bifascicular block
 - (c) Mobitz type II block
 - (d) Mobitx type I block
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 29.** Which of the following statements are correct ?
- (a) Completely occluding thrombus in a coronary artery leads to non ST elevation myocardial infarction
 - (b) Hibernation leads to acute LV dysfunction
 - (c) Stunned myocardium results from reperfusion following transient ischaemia
 - (d) ventricular remodelling following myocardial infarction leads to thinning and expansion
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 30.** A 50 years old diabetic with anterior wall myocardial infarction presents with blood pressure of 80/60 mmHg. Which of the following statements are correct ?
- (a) Patient is in Killip class IV
 - (b) Primary PCI is the treatment of choice
 - (c) IABP will be required
 - (d) Streptokinase will be beneficial
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

- 31.** Which of the following statements are correct in management of acute myocardial infarction ?
- (a) Prehospital thrombolysis was ineffective in clinical trials
 - (b) Door to needle time should be less than 90 minutes
 - (c) Time to treatment from onset of symptoms is very important
 - (d) Primary angioplasty and thrombolysis are equally effective within 3 hours of onset of symptoms
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 32.** Which of the following are absolute contraindications for thrombolysis ?
- (a) Diastolic blood pressure of more than 110 mmHg
 - (b) Prolonged CRP of more than 10 minutes
 - (c) Ischaemic stroke within 3 months
 - (d) Malignant intracranial neoplasm
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 33.** Which of the following statements are correct ?
- (a) Papillary muscle rupture is common in LAD occlusion
 - (b) Mitral regurgitation secondary to papillary muscle rupture results in hollow systolic murmur with thrill
 - (c) Ventricular septal rupture can occur within 24 hours of infarction
 - (d) Cardiac rupture can present as sudden unanticipated death
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

- 34.** Which of the following contribute to significant mortality in acute myocardial infarction ?
- (a) Malignant ventricular arrhythmias
 - (b) Cardiogenic shock
 - (c) Free wall rupture
 - (d) Atrial fibrillation
- (1) a + b
(2) c + d
(3) a + c
(4) a + b + c
- 35.** Which of the following are wrong regarding cardiopulmonary resuscitation ?
- (a) Triple Airway Manoeuvre includes Head lift-chin tilt and Jaw thrust
 - (b) Best chance of survival after cardiac arrest lies in successful defibrillation
 - (c) Optimal defibrillator paddle size for adults is 8 – 10 cm
 - (d) To defibrillate children, energy required is 2 – 4 J/kg
- (1) a + b
(2) c + d
(3) a + c
(4) a + b + c
- 36.** Which of the following statements are correct regarding cardiopulmonary resuscitation ?
- (a) Amiodarone is the preferred antiarrhythmic drug
 - (b) Sodium bicarbonate is indicated for tricyclic antidepressant toxicity
 - (c) Intravenous magnesium is indicated in torsade de pointes
 - (d) Magnesium mirrors the action of extracellular calcium
- (1) a + b
(2) c + d
(3) a + c
(4) a + b + c

37. Which of the following statements are correct ?

- (a) β_1 stimulation increases intracellular cyclic AMP
- (b) Alpha 2 stimulation increases intracellular cyclic AMP
- (c) Dopamine is the precursor of norepinephrine
- (d) Norepinephrine binds to Alpha 2 and Beta 2 receptors

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

38. Which of the following statements are correct ?

- (a) Norepinephrine is a powerful vasoconstrictor rather than a powerful inotrope
- (b) Norepinephrine is useful in patients with cardiac decompensation
- (c) Phenylephrine has no action on beta receptors
- (d) Isoproterenol is an endogenous catecholamine

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

39. Which of the following statements are correct ?

- (a) IV calcium increases myocardial contractility and vascular tone
- (b) Calcium antagonises the cardiac effects of hypokalemia
- (c) Milrinone increases cyclic AMP levels
- (d) Enoximone increases preload and afterload

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

40. Which of the following statements are correct regarding supraventricular tachycardia ?
- (a) Cardioversion is the treatment of choice in all cases of supraventricular tachycardia
 - (b) Valsalva maneuver will increase the ventricular rate in atrial fibrillation
 - (c) Intravenous adenosine should be followed by a bolus of 20 ml of normal saline and elevation of the limb
 - (d) In hemodynamically stable patients, intravenous verapamil or metoprolol can be given
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
41. Which of the following statements are correct regarding management of ventricular tachycardia ?
- (a) When patient is conscious without angina and stable BP asynchronous electrical cardio version is the treatment of choice
 - (b) If systolic BP is < 90mmHg pharmacological cardioversion is indicated
 - (c) If pulse is not felt management should be as a cardiopulmonary arrest
 - (d) Intravenous amiodarone is preferred over lignocaine
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
42. In management of pulmonary oedema which of the following statements are correct
- (a) Mechanical ventilation decreases venous return to thorax
 - (b) Morphine is the drug of choice
 - (c) Intravenous loop diuretics have venodilator action
 - (d) Vasodilators are contra indicated
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

- 43.** Which of the following are correct regarding cyanotic spells ?
- (a) Deep rapid breathing without subcostal retraction is a cardinal feature
 - (b) Gasping respiration and apnea are very early features
 - (c) Pulmonary ejection may disappear during the spell
 - (d) Cyanosis remains same throughout the spell
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 44.** The following measures are correct while managing cyanotic spell
- (a) keep the child in knee chest position
 - (b) Sodium Bicarbonate in isolyte P can be given as infusion
 - (c) sedate the child with subcutaneous morphine
 - (d) start isoprenaline infusion
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 45.** Which of the following statements about pulmonary embolism are correct ?
- (a) A normal perfusion scan excludes pulmonary embolism
 - (b) Echocardiography detects pulmonary thrombosis in most of cases
 - (c) Contrast pulmonary angiogram is a gold standard
 - (d) Normal level of 'D' dimer does not rule out pulmonary embolism
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

46. Which of the following are correct regarding recording of BP ?

- (a) Arm should be well supported
- (b) Clenching and unclenching the fist augments Korotkoff sounds
- (c) Phase 5 Korotkoff sound corresponds to diastolic BP
- (d) 2 consecutive recordings are to be done in Atrial fibrillation

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

47. Which of the following statements are correct

- (a) Decrease in 1 Kg of body weight is associated with an average fall of 1.6 mm of Hg BP
- (b) Presence of retinal hemorrhage indicates malignant hypertension
- (c) Intravenous Enalapril is effective in Hypertensive emergencies
- (d) Diuretics & ACE inhibitors are first line drugs in gestational hypertension

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

48. Which of the following are correct regarding renovascular hypertension ?

- (a) Presence of abdominal bruit
- (b) May present as malignant hypertension
- (c) Young individual without family history of hypertension
- (d) Fibrodysplasia disease is common in elderly

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

- 49.** Which of the following statements are true ?
- (a) Systolic BP is a strong predictor of cardiovascular risk in the elderly than diastolic BP
 - (b) Hypertension induces microalbuminuria in the late stages
 - (c) Commonest abnormality of aorta associated with systemic hypertension is abdominal aortic aneurysm
 - (d) Transient ischaemic attack occurs due to intracranial atherosclerosis
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 50.** A hypertensive is admitted with a BP of 180/120 mmHg. His fundus exam showed retinal hemorrhage and cotton wool exudates. ECG showed prominent negative terminal deflection of P wave in V1 with S in V1 + R in V5 of 45mm. X-ray chest showed Kerley B lines. Which of the following statements are correct ?
- (a) ECG shows evidence of LV hypertrophy
 - (b) ECG favors left atrial enlargement
 - (c) Patient has stage II hypertension
 - (d) X-ray chest favours alveolar edema
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 51.** Which of the following drugs cause dilatation of pulmonary veins ?
- (a) Nitroglycerine
 - (b) Furosemide
 - (c) Morphine
 - (d) Sodium nitroprusside
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

52. While choosing an antihypertensive, which of the following statements are correct ?

- (a) Betablocker is the drug of choice in a hypertensive with stable angina
- (b) ACE inhibitor can be used in a hypertensive with chronic kidney disease provided serum creatinine levels do not exceed 35% above baseline
- (c) Diuretic is indicated in a hypertensive with cardiac failure
- (d) In a diabetic hypertensive, Calcium blocker is the first choice

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

53. Which of the following are correct about Moxonidine ?

- (a) A selective agonist of Imidazoline receptor
- (b) It is a centrally acting antihypertensive
- (c) Improves insulin resistance
- (d) It increases sympathetic activity

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

54. Heart failure secondary to beriberi is characterised by

- (a) small volume rapid pulse
- (b) narrow pulse pressure
- (c) raised JVP
- (d) S3 gallop

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

55. Which of the following are correct ?

- (a) Sympathetic stimulation increases energy expenditure
 - (b) Myocardial hypertrophy leads to cell death and cardiomyopathy of overload
 - (c) Unilateral pleural effusion often occurs in left side
 - (d) In constrictive pericarditis, pedal edema occurs earlier than ascites
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

56. Which of the following statements are correct ?

- (a) Left ventricular hypertrophy of systemic hypertension is a reversible cause of diastolic dysfunction
 - (b) Heart failure caused by valvular lesions is reversible
 - (c) Cardiomyopathy of hemochromatosis is partially reversible
 - (d) Diastolic dysfunction caused by pericardial disease is not reversible
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

57. Which of the following statements about diuretics are correct ?

- (a) Eplerenone acts on distal convoluted tubule
 - (b) Metolazone acts on loop of Henle
 - (c) Continuous intravenous administration of loop diuretics may overcome diuretic resistance
 - (d) Amiloride causes hypokalemia
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

58. Which of the following statements regarding heart failure is correct ?
- (a) A patient with coronary artery disease is in state A of heart failure
 - (b) A person with family history of cardiomyopathy is in stage B of heart failure
 - (c) ACE inhibitors are useful in all stages of heart failure
 - (d) Diuretics are used in stage B of heart failure
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
59. Which of the following can aggravate heart failure ?
- (a) NSAIDS
 - (b) Thiazolidinediones
 - (c) Anaemia
 - (d) Reduction in heart rate
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
60. Which of the following statements are correct regarding ACE inhibitors ?
- (a) Favourably remodel left ventricle
 - (b) Do not reduce mortality in heart failure
 - (c) Increase the levels of bradykinin
 - (d) Increase systemic vascular resistance
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

- 61.** Which of the following regarding cardiac transplantation is correct ?
- (a) Long term immunosuppression is easy
 - (b) 5 year survival rate is above 90%
 - (c) Long term cyclosporin use leads to renal dysfunction
 - (d) Rapidly progressive coronary atherosclerosis occurs in transplanted heart
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 62.** In the pathogenesis of atherosclerosis
- (a) Stage I lesion develops when monocytes accumulate in intima
 - (b) in fatty streak pools of extracellular lipids are seen
 - (c) lipid core and subendothelial smooth muscle cells migration are characteristic of stage IV lesions
 - (d) heavy calcification is a feature of stage V plaques
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 63.** Which of the following statements are correct ?
- (a) Systolic blood pressure is more strongly correlated to coronary artery disease than diastolic blood pressure or pulse pressure
 - (b) Coronary artery disease accounts for 80% of mortality and hospital admissions of diabetes mellitus
 - (c) Insulin resistance increases the risk for coronary artery disease
 - (d) The risk of coronary artery disease by hypertension is related to the duration of hypertension
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

64. Which of the following statements are correct ?

- (a) Obesity is associated with increasing levels of LDL cholesterol and triglycerides and decreased HDL cholesterol
- (b) Distribution of fat is more important than total amount of fat
- (c) BMI of 25 – 29 causes nearly two fold increase in coronary artery disease
- (d) Exercise alone can cause great weight losses

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

65. Which of the following statements are correct ?

- (a) High CRP level is an independent risk factor for coronary artery disease
- (b) The predictive value of Lp(a) is more in young individuals and those with dyslipidemia
- (c) Lp(a) has homologous aminoacid sequence with apoB
- (d) Estrogen therapy increases the level of Lp(a)

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

66. Which of the following statements are correct ? In coronary arteries with more than 70% reduction in luminal cross sectional area

- (a) coronary flow reserve is near zero
- (b) increase in myocardial oxygen demand will provoke ischaemia
- (c) is equal to 35% reduction in luminal diameter
- (d) intramyocardial arteries and arterioles are maximally constricted

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

67. Which of the following statements are correct ?

- (a) Myocardium extracts high percentage of oxygen
 - (b) coronary blood flow regulation depends mostly on tone of intramyocardial vessels
 - (c) when conductance vessels are narrowed resistance vessels are maximally dilated
 - (d) intramyocardial vessels have minimal vasodilatory capacity
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

68. Which of the following statements are correct ?

- (a) Adenosine, prostanoids and nitric oxide are involved in metabolic regulation of coronary flow
 - (b) EDRF plays a central role in atherogenesis
 - (c) Acetylcholine can act only on intact endothelium
 - (d) endothelin has a shorter duration of action than nitric oxide
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

69. Which of the following statements are wrong ?

- (a) ApoB 100 and E have receptor binding function
 - (b) apo A1 and C2 influence the enzymes involved in lipoprotein metabolism
 - (c) cholesterol ester transfer proteins transfer free cholesterol from LDL to HDL
 - (d) LDL receptors recognise apoB 48
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

70. Which of the following statements are correct ?

- (a) Ezetimibe by lowering LDL cholesterol gives mortality benefits
 - (b) fibrates when added to statin therapy improves clinical outcomes
 - (c) cholestyramine can be used in women considering pregnancy
 - (d) Niacin reduces Lp(a) significantly
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

71. Which of the following statements are correct ?

- (a) Cardiac Troponin V has 11 aminoacids not present in skeletal forms
 - (b) Cardiac troponin T has 31 aminoacids not present in skeletal forms
 - (c) Myoglobin is released more rapidly from injured myocardium than CKMB
 - (d) CKMB levels return to normal by 72 hours after myocardial infarction
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

72. Which of the following conditions, ECG will show dominant R wave in V1

- (a) Right ventricular hypertrophy
 - (b) posterior wall myocardial infarction
 - (c) preexcitation
 - (d) left bundle branch block
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

- 73.** Following the indications of successful thrombolysis
- (a) accelerated idioventricular rhythm
 - (b) atrial fibrillation
 - (c) more than 50% resolution of ST elevation at 90 minutes
 - (d) ventricular tachycardia
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 74.** A 40 years old male with acute anterior wall myocardial infarction presents within 2 hours of onset of chest pain. Which of the following treatments is correct ?
- (a) Primary angioplasty
 - (b) Thrombolysis
 - (c) Clopidogrel - 300mg loading dose
 - (d) Enteric coated aspirin 300mg loading dose
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 75.** Which of the following are contraindications for thrombolysis
- (a) intracranial hemorrhage in the past
 - (b) suspected aortic dissection
 - (c) Renal biopsy one week ago
 - (d) menstrual bleeding
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

76. Which of the following statements are correct

- (a) Aspirin is as effective as Streptokinase in treatment of acute myocardial infarction
 - (b) Thrombolysis is indicated in non ST elevation myocardial infarction
 - (c) Eptifibatide is indicated in high risk unstable angina
 - (d) all patients with unstable angina should undergo coronary angiogram
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

77. Nitroglycerin is useful in acute myocardial infarction in following situations

- (a) acute pulmonary edema
 - (b) hypertension
 - (c) persisting angina
 - (d) right ventricular infarction
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

78. IABP is indicated in

- (a) anterior wall myocardial infarction with cardiogenic shock
 - (b) acute aortic dissection
 - (c) PCI of unprotected left main coronary artery
 - (d) severe aortic regurgitation with LV dysfunction
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

- 79.** Which of the following are correct regarding ventricular septal rupture in acute myocardial infarction
- (a) Occurs in 10% of acute myocardial infarction
 - (b) more common in inferior wall myocardial infarction
 - (c) majority occurs in first week of myocardial infarction
 - (d) signs of systemic venous congestion are more than pulmonary venous congestion
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 80.** Which of the following statements are correct regarding Cardiopulmonary resuscitation
- (a) intraosseous administration of drugs can be done in children
 - (b) endotracheal route of administration requires 2 – 3 times of intravenous dose
 - (c) Epinephrine enhances cerebral & coronary blood flow
 - (d) acidosis inhibits the effect of vasopressin
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c
- 81.** What is the correct dose for the following drugs in cardiopulmonary resuscitation
- (a) Vasopressin : 40 IU/kg
 - (b) Amiodarone : 450mg bolus given over 10 minutes
 - (c) Epinephrine : 10 mcg/kg
 - (d) Atropine: 10 – 15 mcg/kg
- (1) a + b
 - (2) c + d
 - (3) a + c
 - (4) a + b + c

82. Which of the following statements are correct

- (a) Dopamine causes more tachycardia and arrhythmias than dobutamine
- (b) Alpha-1 receptor stimulation does not alter levels of cyclic AMP
- (c) dobutamine does not cause norepinephrine release
- (d) in heart failure, beta receptors are upregulated

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

83. Which of the following statements are correct ?

- (a) prolonged use of dobutamine leads to desensitization
- (b) Dopamine stimulates release of Norepinephrine
- (c) Epinephrine is effective in patients with transplanted heart
- (d) Isoproterenol causes tachycardia and hypertension

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

84. Which of the following doses are correct ?

- (a) Dobutamine 20 – 40 ug/kg/min
- (b) Isoproterenol 0.05ug – 0.5ug/kg/min
- (c) Dopamine 1 – 20 ug/kg/min
- (d) Norepinephrine 1 – 70 ug/min

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

85. In a patient with supraventricular tachycardia, synchronized cardio version is indicated when there is
- (a) Acute myocardial infarction
 - (b) Systolic blood pressure of less than 90 mmHg
 - (c) Decreased level of consciousness
 - (d) palpitation
- (1) a + b
(2) c + d
(3) a + c
(4) a + b + c
86. In pulmonary oedema which of the following statements are correct
- (a) Transudation of fluid into alveoli is less than lymphatic drainage
 - (b) Rhonchi and crackles develop first in apical zone
 - (c) Lungs become less compliant
 - (d) Adrenergically mediated vasoconstriction occurs
- (1) a + b
(2) c + d
(3) a + c
(4) a + b + c
87. Which of the following statements are correct in managing hypertensive emergencies ?
- (a) In presence of CAD, Betablocker with Nitroglycerine is useful
 - (b) If encephalopathy is present intravenous alphablocker is the drug of choice
 - (c) Betablocker is very effective in aortic dissection
 - (d) Sublingual Nifedipine is very effective in acute pulmonary odema
- (1) a + b
(2) c + d
(3) a + c
(4) a + b + c

88. Following facts are correct regarding the mechanism of cyanotic spell

- (a) Catecholamine induced infundibular spasm
- (b) fall in systemic vascular resistance increase in right to left shunt
- (c) activation of mechano receptors in ventriculans
- (d) increase in pulmonary blood flow

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

89. Which of the following statements regarding pulmonary embolism are correct

- (a) elevation of 'D' dimer is specific for pulmonary embolism
- (b) a normal pulse oximetry (SP02) excludes pulmonary embolism
- (c) S1 Q3 T3 in ECG has less sensitivity
- (d) a normal chest X ray does not rule out pulmonary embolism

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c

90. Which of the following statements are true

- (a) computed tomographic pulmonary angiogram has reduced the need for contrast pulmonary angiogram
- (b) MR pulmonary angiogram is superior to CT pulmonary angiogram
- (c) Thrombolysis is indicated in pulmonary embolism if there is RV dysfunction is demonstrated by echocardiogram
- (d) unfractionated heparin has better bio availability than low molecular weight heparin

- (1) a + b
- (2) c + d
- (3) a + c
- (4) a + b + c